

# 9分达人

陶春 编著  
辜驰 张登

## 雅思阅读真题 还原及解析

### 4

2015年-2009年6套雅思阅读真题

- ◎ 与官方题库原文一字不差!
- ◎ 与雅思真题题目一模一样!!
- ◎ 与官方标准答案完全一致!!!

2009.12.5  
Does IQ Test  
Prove Creativity?

2014.7.26  
The Development  
of Plastics

2015.5.30  
Honey Bees in Trouble

2012.10.11  
Monkeys and Forests

2014.8.2  
The History of Pencil

2012.5.26  
Voyage of Going:  
Beyond the Blue Line 2

2013.11.16  
T-rex: Hunter  
or Scavenger?

2014.8.21  
Motivating Drives

2013.5.18  
Leaf-cutting Ants and Fungus

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按捺住内心的激动, 细心  
把题答完。

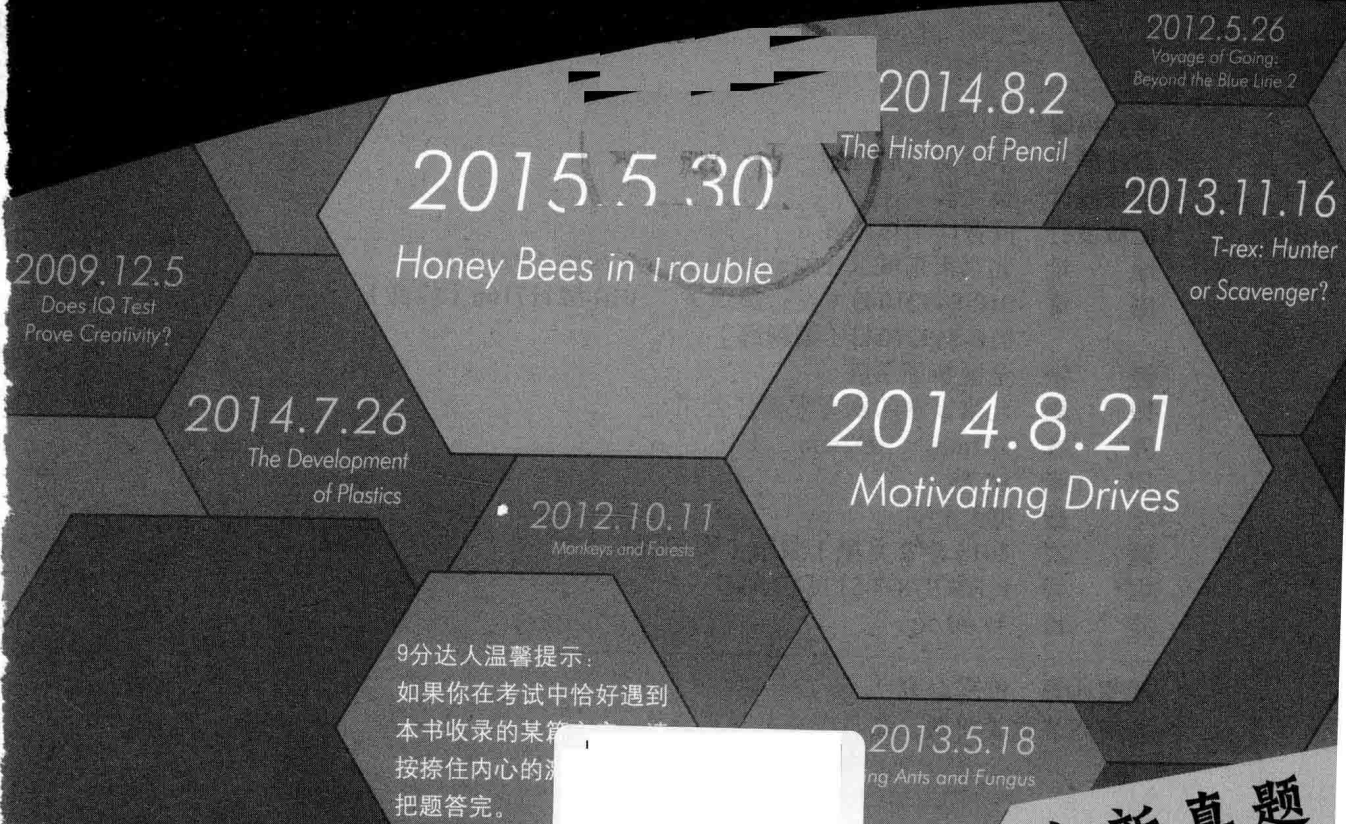
全新真题

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陶春  
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特约编辑 吴 蓉  
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## 序 言

《剑桥雅思真题集》系列面世后，雅思界迎来新的曙光。原本一片模糊的雅思真题揭开了其神秘面纱，使得“烤鸭”们在考前得以一睹真容。然而，此系列书籍虽然为“烤鸭”们展示了真实的雅思考试题目及其题型，也为“烤鸭”们提供了不错的训练材料，但众所周知，《剑桥雅思真题集》系列中所收录的题目都是剑桥雅思考试委员会弃之不用，在今后的考试中也基本上不会再出现的旧题、老题。

正是基于这一情况，《9分达人阅读》系列才得以诞生，目的是帮助“烤鸭”们了解最近考试的真实状态。如果说《剑桥雅思真题集》系列的存在使“烤鸭”们对雅思考试有了一个全方位的了解，包括听、说、读、写四个组成部分的大致内容，各部分的题目类型、出题范围、出题规律、难易程度等，那么《9分达人阅读》系列的问世就使“烤鸭”们得以专攻雅思阅读方面，进一步走近雅思阅读考试，从近年真题中一窥雅思阅读考试的真实面貌。不仅如此，《9分达人阅读》系列中的雅思阅读真题还极有可能在往后的考试中多次反复出现，为考试的最终胜利再加上一枚厚重的砝码。

从《剑桥雅思真题集1》到最新的《剑桥雅思真题集10》，剑桥雅思考试委员会一直在从雅思题库中抽取老旧的但又有一定代表意义的真题汇编成书，以供雅思教师、“烤鸭”以及其他英语学习者参考。被收录的题目对“烤鸭”们的雅思复习和备考有着重要的指导作用，对我们的图书创作也有着重大的借鉴意义。但是，《剑桥雅思真题集》系列中收录的旧题和近年的考试毕竟间隔较远。近期的雅思阅读考试究竟是怎样的题型分布和语言难度，广大“烤鸭”们并不清楚，也迫切希望了解。《9分达人阅读》系列的重点就是展现近年雅思阅读真题的出题类型，并揭示阅读文章的背景分布及真实难度。本系列图书可以说是“烤鸭”们在备考时，除《剑桥雅思真题集》系列以外，最合适的练习材料。建议“烤鸭”们先把《剑桥雅思真题集》系列中的阅读部分练习透彻，对雅



思阅读的总体情况和出题方式了解清楚，再使用《9分达人阅读》系列作为最后的冲刺训练材料，把自己的备考状态调整到真实考试的实战水平。

笔者相信，有《剑桥雅思真题集》系列为大家打基础，有《9分达人阅读》系列为大家汇聚前沿信息，冲刺备考，只要“烤鸭”们懂得好好利用手中的书本，踏踏实实学习，细心揣摩真题，就一定能在雅思考试中取得一个满意的成绩！

陶春

2015年9月于北京

## 前 言

《9分达人阅读》系列出版至今已近5年，陪伴诸多新老“烤鸭”历经雅思考试的滚滚洪流，一步步劈波斩浪，从大洋此岸安全到达大洋彼岸，在异国他乡实现了“留学梦”！对本系列图书来说，这一成绩无疑是值得肯定的。同时，这也激励着我们不断努力，继续为广大读者推出更多、更好的雅思图书。

从《9分达人雅思阅读真题还原及解析》到《9分达人雅思阅读真题还原及解析3》，我们一步步改进，不断完善，不仅为大家还原出了更多历年雅思考试阅读真题，总结了雅思阅读各类题型的解题技巧和方法，提供了全面的题目解读和分析，还为广大“烤鸭”们打造了一册又一册的押题宝典！本书是继《9分达人雅思阅读真题还原及解析3》之后《9分达人阅读》系列的又一名成员，是作者的又一呕心沥血之作。在《9分达人雅思阅读真题还原及解析4》的创作过程中，作者投入了大量精力，从细心筛选雅思机经试题并加以还原，到精心编著真题解析、反复打磨，无不体现了作者的细心思量和用心良苦。在历经反复雕琢后，本书现在终于成熟。我们相信，《9分达人雅思阅读真题还原及解析4》将继续为广大“烤鸭”们的“留学梦”奉献出自己的一份力量，帮助“烤鸭”们进行考前冲刺复习，扩充雅思阅读词汇储备，找到真实的考场体验，习得精炼的解题方法和技巧，延续《9分达人阅读》系列的押题神话！

《9分达人雅思阅读真题还原及解析4》的特色有以下4点：

### 一、2015年-2009年6套雅思阅读真题完整收录。

本书收录了2015年-2009年6套完整的雅思阅读真题，“烤鸭”们可通过本书在考前调整好心态，进行适当的训练。本书所收录的6套阅读真题与《9分达人雅思阅读真题还原及解析》、《9分达人雅思阅读真题还原及解析2》和《9分达人雅思阅读真题还原及解析3》所收录的真题都不重合。考生可根据自己的实际情况选做其中的题目，再对照解析部分查漏补缺，巩固已有的知识和经验，加深对雅思考试考点的印象和理解。

## 二、“参考译文”版块内容升级。

本书沿用了《9分达人雅思阅读真题还原及解析3》的四大版块,它们分别为:“真题集”、“词汇详解”、“题目详解”和“参考译文”。其中,“真题集”收录了2015年-2009年6套阅读真题;“词汇详解”汇总了阅读文章中的重难点词汇及其释义;“题目详解”则是6套阅读真题的详尽解析。值得一提的是,本书中的“参考译文”版块采用了中英文对照模式,并且“词汇详解”中所收录的词汇在“参考译文”原文部分呈加粗显示,不仅方便“烤鸭”们对比双语内容,加深对雅思真题的理解,还有利于大家在联系上下文的基础上了解词汇的运用,深入理解词义。

## 三、详尽的真题解读与分析,手把手传授经验与技巧。

首先,本书结合题目与原文对每一道阅读题目进行了详细的解读。内容清晰明了,通俗易懂,可帮助“烤鸭”们既知其然又知其所以然。其次,解析中还汇聚了最有效的解题思路、方法和技巧,有助于“烤鸭”们从技术层面把握好考试节奏。相信“烤鸭”们在掌握好这些方法、技巧后能更从容地应对雅思阅读考试。总之,“烤鸭”们须细心揣摩,读透吃透,如此才能将书本上的知识化为己用。

## 四、押题宝典。

《9分达人阅读》系列的“考场押题技能”是毋庸置疑的,相信诸多“烤鸭”已深有体会。在考场中,人品爆发的“烤鸭”或许会惊喜地发现手中的雅思阅读题竟然与本书中的题目一模一样!若真如此,那么请“烤鸭”们先按捺住内心的激动,细心地把题答完吧!当然,前提是“烤鸭”们一定要把本书内容吃透了,不然即便在考场上碰到原题,也未必能运用自如。毕竟,书中的内容只有化为脑海中的知识,才能帮助“烤鸭”们笔锋指处,所向披靡!

为方便“烤鸭”们互通有无、分享经验、结伴同行,也为更好地了解“烤鸭”们的真实需求,切实服务广大读者,我们建立了新航道雅思读者互动QQ群(群号见封底)、新航道9分达人微博(<http://weibo.com/3104127681>)及9分达人微信(“9分达人”二维码见封面),诚邀“烤鸭”们和英语爱好者加入,与志同道合者一起交流心得、畅所欲言!如果您对我们有任何意见或建议,也请不要忘记告诉我们!我们会认真对待每一位读者的意见和提议,不断改善、不断进步,为大家推出更优秀的图书!

最后,我们衷心祝愿“烤鸭”们取得优异的成绩,实现自己的“留学梦”!

编者

2015年9月



## 致《9分达人》系列读者

### 读者疑问

1. 有了《剑1-剑10》(即后面提到的《剑桥雅思真题集》系列),我还需要《9分达人》系列吗?

2.《9分达人》之后又有《9分达人2》、《9分达人3》与《9分达人4》,这到底是“神马”节奏?你们在拍电影吗?

3. 复习中应该什么时候使出《9分达人》系列这个大招?怎样才能让花出去的钱物超所值,转化成得分?

4. 为什么每本书只有区区六七套题,是不是太坑了点?

5. 每篇文章、题目、答案都跟真实考试一模一样吗?为什么感觉有些文章看起来比官方真题中要更“肥”一些呢?难度与实际考试能一样吗?

6. 有谁可以告诉我,为什么《9分达人》(阅读系列第一本)最后一套题没有答案?

7. 为什么如此高大上的力作,纸张却像“盗版书”?

### 答疑解惑

1. 有了《剑1-剑10》(即后面提到的《剑桥雅思真题集》系列),我还需要《9分达人》系列吗?

在回答这个问题之前,我们先来了解一下雅思考试的机制。“烤鸭”们都知道,雅思考试极为频繁,平均每月4场。这就意味着剑桥雅思考试委员会的出题速度远远跟不上试题更新的步伐,因此日理万机的委员会专家们不可能每次考试都使用新题。事实上,雅思考试有一个庞大的题库,每场考试的题目都是计算机从题库中按一定公式抽取组合而成。就好像一个养满了鱼的大池塘,每次都从里面捞出几条来让你认认这都是谁。若我们能先认识几条“熟鱼”,那肯定是“善莫大焉”。然而,考试委员会的“渔夫”们从来就没有打算将这个宽广的鱼池对外开放,只是选取了较有代表性的“老鱼”编纂而成了《剑1-剑10》,以此勉强平复广大考生对真题的渴望之情。自1996年出版以来,《剑1-剑10》以其权威性已经成为雅思界的经典教材,那么《9分达人》系列又有什么优势呢?

它凭什么敢和这位泰山北斗叫板呢？

事实上，《9分达人》系列与《剑1-剑10》的区别就在于以下两点：

### （1）时新性

无论是最早的《剑1》还是最新的《剑10》，书中所收录的真题均为剑桥雅思考试委员会早已弃之不用的老题、旧题。而《9分达人》系列所收录的题目都是作者根据自身的经验所编写的，以阅读系列为例，其中《9分达人》涵盖了2011年-2007年8套阅读真题，《9分达人2》收录了2012年-2006年7套阅读真题，《9分达人3》收录了2014年-2006年6套阅读真题，现在《9分达人4》则收录了2015年-2009年6套阅读真题，四本书所收入的真题并不重合，绝非剑桥雅思考试委员会弃之不用的老题或旧题。如此，《9分达人》系列与《剑1-剑10》，哪个更加具有青春活力就显而易见了。

### （2）命中率

我们必须明白的一个事实是：题目一旦被收录到《剑桥雅思真题集》系列中，雅思考试委员会便会立即将其从现行题库中剔除。换言之，《剑1-剑10》所收录的题目基本不可能在真实考试中再次出现，其命中率几乎为零。而《9分达人》系列所收录的真题仍在现行题库之中，并且自出版以来已屡次在考试中重现（具体请参见“本书所收集文章及对应考试日期一览”），其命中率可以说是剑桥系列的无穷大倍。

总结来说，作为雅思界的权威用书，《剑1-剑10》从官方的角度展示了雅思考试的面貌。考生若想全面了解雅思考试的题型、难度和出题思路，认真学习这一系列的书籍十分必要。而《9分达人》系列则更像是一招便可致命的武林秘笈，考生若想一窥雅思考试的现行题库，或想在短期内迅速提高分数，那么《9分达人》系列无疑是最佳选择了！

## 2. 继《9分达人》之后又有《9分达人2》《9分达人3》与《9分达人4》，这到底是“神马”节奏？你们在拍电影吗？

正如上面所提到的：“以阅读系列为例，《9分达人》涵盖了2011年-2007年8套雅思阅读真题，《9分达人2》收入了2012年-2006年7套雅思阅读真题，《9分达人3》收录了2014年-2006年6套雅思阅读真题，现在《9分达人4》则收录了2015年-2009年6套阅读真题，四本书所收入的真题并不重合。”

这四本书所收录的真题都是近几年考过一次、甚至多次的雅思真题，而且也极有可能在未来的雅思考试中再次、甚至反复地出现。所以这四本书互相并不冲突，它们所收录的题目并不重合，并且都有命中的可能性，就像勇敢的葫芦娃兄弟们，每一位都各有所长，“合体”之后更是可以成为无敌小金刚，帮助各位“烤鸭”战无不胜，所向披靡。

综上所述,《9分达人》、《9分达人2》、《9分达人3》与《9分达人4》的联系就在于它们所收录的题目都是真题,都有相同的可能再一次出现在真实的考试中。四者的区别则在于它们所收录的题目都是不一样的,不重复的。值得一提的是,《9分达人4》中的参考译文为中英文对照排版,方便“烤鸭”精读细读,细细品味。此外,词汇详解中的重点词汇也在英文部分得以加粗呈现,可帮助“烤鸭”对照学习。

**3. 复习中应该什么时候使出《9分达人》系列这个大招?怎样才能让花出去的钱物超所值,转化成得分?**

对于这个问题,小编认为应该要具体情况具体分析了。有的“烤鸭”可能会认为在考前做这一系列书最合适,因为可以把它们当作预测或押题书来使用。对于这类时间紧迫的考生来说,这样做不失为一个好办法。但是,小编想说,如果时间还算充裕,“烤鸭”们可千万不要浪费了和“葫芦娃们”在一起的幸福时光,等到考试的前一天才开始翻阅!小编建议这类“烤鸭”能够静下心来细细研读,从文章内容、出题规律、考查角度甚至长难句等诸多方面“吃透”这一系列书才是最佳选择。毕竟,您多陪“葫芦娃们”玩耍,你们的感情才会更好,小英雄们才会给您更多的帮助。书上的内容只有吃透了、消化了,才是“烤鸭”们自己的!不管考题如何千变万化,“烤鸭”们都能应变自如。

**4. 为什么每本书只有区区六七套题,是不是太坑了点?**

“烤鸭”们或许知道网络上的阅读机经非常庞大,但可能并不清楚从这个庞大的机经库中选出今后雅思考试最有可能出现的阅读真题是一项多么费时费力的工作,更不用提将它们精心还原、编写成书了!小编个人认为题目“不在多、而在精”,把已有的几套题研究透彻了,那也是非常了不起的成就。要知道许多人都卡在“囫囵吞枣”的阶段,没有细嚼慢咽,品不出其中真味,体会不到六七套真题精微的奥妙之处,更发现不了其背后庞大而丰富的信息。

**5. 每篇文章、题目、答案都跟真实考试一模一样吗?为什么感觉有些文章看起来比官方真题中要更“肥”一些呢?难度与实际考试能一样吗?**

《9分达人》系列所收录的题目都是作者根据自身经验所编写的。不过,鉴于剑桥雅思考试委员会可能会细微调整文章内容和题目顺序,甚至对题目及题型做出改动,所以作者在编写的过程中,可能会对文章及题目稍作调整。为使“烤鸭”们对考试更



有把握，作者在还原一些文章时会适当保留或增加一些信息。为什么说保留呢？大家都知道，雅思考试中的许多文章都是改编自国外著名报刊或杂志上的文章。剑桥雅思考试委员会在编写考题的过程中会视情况删减一些内容或者替换一些生僻词汇等。而作者则会视情况保留或增补一些相关内容。这些保留或增加的内容都跟真题有着密不可分的联系，既能帮助考生扩充知识面，又能帮助考生训练做题速度，还能在剑桥雅思考试委员会对文章内容进行调整时发挥意想不到的作用。所以，“烤鸭”们在实际使用这一系列书籍时会感觉有些文章偏长，但其总体内容和难度与实际考试是差不多的。如果“烤鸭”们的目的仅仅是通过这一系列书来押题的话，那么一定要牢记每一道题目及其对应的答案，千万别弄错了。如果“烤鸭”们的目的是想通过学习这一系列书稳步提升英语能力的话，那么就要一步步“吃透”，这样一来，你们会发现一切变化不过是“纸老虎”！

#### 6. 有谁可以告诉我，为什么《9分达人》（阅读系列第一本）最后一套题没有答案？

对于《9分达人》的读者而言，或许都存在同样的疑问。其实答案非常简单：最后一套题是作者随书“附赠”给读者的“福利”。这套附赠的题目是2011年雅思首场考试（即2011年1月8日）的阅读真题。不过，作者并未在书中公布这套真题的答案（当然，也没有相应的题目详解和参考译文），而是把悬念留到了《9分达人2》（阅读系列第二本）中去解答。

#### 7. 为什么如此高大上的力作，纸张却像“盗版书”？

轻型纸答：人家好伤心哦！心都痛了！

为了保护广大读者的眼睛，为了保护我们可爱的地球，更为了各位“烤鸭”能够轻松应考，《9分达人阅读》和《9分达人听力》系列都采用了轻型纸。这是一种更人性化的纸种，纸张比较厚，但是很轻，而且质感很好，做成书籍之后，拿在手里也不会感到重，所以非常方便携带。另外，这种纸不含荧光增白剂，采用原色调（轻型纸：人家不刺眼的哦！），具有天然特性，使用寿命也比一般的纸种长。在欧美等发达国家中，书店里95%以上的图书都是采用这种纸印刷，既环保，又可以保护大家在使用过程中视力不受伤害，而且较轻的重量，让不是女汉子的萌妹子也可以毫不费力地把书捧在手心里了！

最后，小编在此祝愿广大“烤鸭”都能够有所突破，修为猛进！

## 本书所收集文章及对应考试日期一览

### Test 1

The Impact of the Potato	2014 年 6 月 28 日	
Ancient Chinese Chariots	2014 年 3 月 15 日	2012 年 6 月 30 日
Stealth Forces in Weight Loss	2014 年 5 月 24 日	

### Test 2

Andrea Palladio: Italian Architect	2013 年 5 月 16 日	
Corporate Social Responsibility	2015 年 3 月 21 日	2014 年 5 月 15 日
The Significant Role of Mother Tongue in Education		2012 年 5 月 26 日

### Test 3

Voyage of Going: Beyond the Blue Line 2	2012 年 5 月 26 日	
Does IQ Test Prove Creativity?	2009 年 12 月 5 日	
Monkeys and Forests	2012 年 10 月 11 日	

### Test 4

T-rex: Hunter or Scavenger?	2013 年 11 月 16 日	2012 年 4 月 12 日
Leaf-cutting Ants and Fungus	2013 年 5 月 18 日	2012 年 4 月 28 日
Honey Bees in Trouble	2015 年 5 月 30 日	

### Test 5

Ants Could Teach Ants	2014 年 7 月 19 日	
The Development of Plastics	2014 年 7 月 26 日	
Global Warming in New Zealand	2014 年 7 月 12 日	

### Test 6

Computer Games for Preschoolers: Nintendo's Research and Design Process	2014 年 7 月 19 日	
The History of Pencil	2014 年 8 月 2 日	
Motivating Drives	2014 年 8 月 21 日	

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# TEST 1

## READING PASSAGE 1

You should spend about 20 minutes on **Questions 1-13**, which are based on Reading Passage 1 below.

### The Impact of the Potato

*Jeff Chapman relates the story of history's most important vegetable*

The potato was first cultivated in South America between three and seven thousand years ago, though scientists believe they may have grown wild in the region as long as 13,000 years ago. The genetic patterns of potato distribution indicate that the potato probably originated in the mountainous west-central region of the continent.

Early Spanish chroniclers who misused the Indian word batata (sweet potato) as the name for the potato noted the importance of the tuber to the Incan Empire. The Incas had learned to preserve the potato for storage by dehydrating and mashing potatoes into a substance called Chuño. Chuño could be stored in a room for up to 10 years, providing excellent insurance against possible crop failures. As well as using the food as a staple crop, the Incas thought potatoes made childbirth easier and used it to treat injuries.

The Spanish conquistadors first encountered the potato when they arrived in Peru in 1532 in search of gold, and noted Inca miners eating Chuño. At the time the Spaniards failed to realise that the potato represented a far more important treasure than either silver or gold, but they did gradually begin to use potatoes as basic rations aboard their ships. After the arrival of the potato in Spain in 1570, a few Spanish farmers began to cultivate them on a small scale, mostly as food for livestock.

Throughout Europe, potatoes were regarded with suspicion, distaste and fear. Generally considered to be unfit for human consumption, they were used only as animal fodder and sustenance for the starving. In northern Europe, potatoes were primarily grown in botanical gardens as an exotic novelty. Even peasants refused to eat from a plant that produced ugly, misshapen tubers and that had come from a heathen civilisation. Some felt that the potato plant's resemblance to plants in the nightshade family hinted that it was the creation of witches or devils.

In meat-loving England, farmers and urban workers regarded potatoes with extreme distaste. In 1662, the Royal Society recommended the cultivation of the tuber to the English government and the nation, but this recommendation had little impact. Potatoes did not become a staple until, during the food shortages associated with the Revolutionary Wars, the English government began to officially encourage potato cultivation. In 1795, the Board of Agriculture

issued a pamphlet entitled “Hints Respecting the Culture and Use of Potatoes”; this was followed shortly by pro-potato editorials and potato recipes in *The Times*. Gradually, the lower classes began to follow the lead of the upper classes.

A similar pattern emerged across the English Channel in the Netherlands, Belgium and France. While the potato slowly gained ground in eastern France (where it was often the only crop remaining after marauding soldiers plundered wheat fields and vineyards), it did not achieve widespread acceptance until the late 1700s. The peasants remained suspicious, in spite of a 1771 paper from the Faculté de Paris testifying that the potato was not harmful but beneficial. The people began to overcome their distaste when the plant received the royal seal of approval: Louis XVI began to sport a potato flower in his buttonhole, and Marie-Antoinette wore the purple potato blossom in her hair.

Frederick the Great of Prussia saw the potato's potential to help feed his nation and lower the price of bread, but faced the challenge of overcoming the people's prejudice against the plant. When he issued a 1774 order for his subjects to grow potatoes as protection against famine, the town of Kolberg replied: “The things have neither smell nor taste, not even the dogs will eat them, so what use are they to us?” Trying a less direct approach to encourage his subjects to begin planting potatoes, Frederick used a bit of reverse psychology: he planted a royal field of potato plants and stationed a heavy guard to protect this field from thieves. Nearby peasants naturally assumed that anything worth guarding was worth stealing, and so snuck into the field and snatched the plants for their home gardens. Of course, this was entirely in line with Frederick's wishes.

Historians debate whether the potato was primarily a cause or an effect of the huge population boom in industrial-era England and Wales. Prior to 1800, the English diet had consisted primarily of meat, supplemented by bread, butter and cheese. Few vegetables were consumed, most vegetables being regarded as nutritionally worthless and potentially harmful. This view began to change gradually in the late 1700s. The Industrial Revolution was drawing an ever increasing percentage of the populace into crowded cities, where only the richest could afford homes with ovens or coal storage rooms, and people were working 12-16 hour days which left them with little time or energy to prepare food. High yielding, easily prepared potato crops were the obvious solution to England's food problems.

Whereas most of their neighbours regarded the potato with suspicion and had to be persuaded to use it by the upper classes, the Irish peasantry embraced the tuber more passionately than anyone since the Incas. The potato was well suited to the Irish soil and climate, and its high yield suited the most important concern of most Irish farmers: to feed their families.

The most dramatic example of the potato's potential to alter population patterns occurred in Ireland, where the potato had become a staple by 1800. The Irish population doubled to eight million between 1780 and 1841, this without any significant expansion of industry or reform of agricultural techniques beyond the widespread cultivation of the potato. Though Irish land-holding practices were primitive in comparison with those of England, the potato's high yields allowed even the poorest farmers to produce more healthy food than they needed with scarcely any investment or hard labour. Even children could easily plant, harvest and cook potatoes, which of course required no threshing, curing or grinding. The abundance provided by potatoes greatly decreased infant mortality and encouraged early marriage.

## Questions 1-5

Do the following statements agree with the information given in Reading Passage 1?

In boxes 1-5 on your answer sheet, write

**TRUE** if the statement agrees with the information

**FALSE** if the statement contradicts the information

**NOT GIVEN** if there is no information on this

- 1 The early Spanish called potato as the Incan name 'Chuño'.
- 2 The purpose of Spanish coming to Peru was to find potatoes.
- 3 The Spanish believed that the potato has the same nutrients as other vegetables.
- 4 Peasants at that time did not like to eat potatoes because they were ugly.
- 5 The popularity of potatoes in the UK was due to food shortages during the war.



## Questions 6-13

Complete the sentences below.

Choose **ONE WORD ONLY** from the passage for each answer.

Write your answers in boxes 6-13 on your answer sheet.

- 6 In France, people started to overcome their disgusting about potatoes because the King put a potato \_\_\_\_\_ in his button hole.
- 7 Frederick realised the potential of potato but he had to handle the \_\_\_\_\_ against potatoes from ordinary people.
- 8 The King of Prussia adopted some \_\_\_\_\_ psychology to make people accept potatoes.
- 9 Before 1800, the English people preferred eating \_\_\_\_\_ with bread, butter and cheese.
- 10 The obvious way to deal with England food problems was to grow high yield-ing potato \_\_\_\_\_.
- 11 The Irish \_\_\_\_\_ and climate suited potatoes well.
- 12 Between 1780 and 1841, based on the \_\_\_\_\_ of the potatoes, the Irish popu-lation doubled to eight million.
- 13 The potato's high yields helped the poorest farmers to produce more healthy food almost without \_\_\_\_\_ or hard physical work.

## READING PASSAGE 2

*You should spend about 20 minutes on Questions 14-26, which are based on Reading Passage 2 below.*

### Ancient Chinese Chariots

The Shang Dynasty or Yin Dynasty, according to traditional historiography, ruled in the Yellow River valley in the second millennium BC. Archaeological work at the Ruins of Yin (near modern-day Anyang), which has been identified as the last Shang capital, uncovered eleven major Yin royal tombs and the foundations of palaces and ritual sites, containing weapons of war and remains from both animal and human sacrifices.

The Tomb of Fu Hao is an archaeological site at Yinxu, the ruins of the ancient Shang Dynasty's capital Yin, within the modern city of Anyang in Henan Province, China. Discovered in 1976, it was identified as the final resting place of the queen and military general Fu Hao. The artefacts unearthed within the grave included jade objects, bone objects, bronze objects etc. These grave goods are confirmed by the oracle texts, which constitute almost all of the first hand written record we possess of the Shang Dynasty. Below the corpse was a small pit holding the remains of six sacrificial dogs and along the edge lay the skeletons of human slaves, evidence of human sacrifice.

The Terracotta Army was discovered on 29 March 1974 to the east of Xi'an in Shaanxi. The terracotta soldiers were accidentally discovered when a group of local farmers was digging a well during a drought around 1.6 km (1 mile) east of the Qin Emperor's tomb around at Mount Li (Lishan), a region riddled with underground springs and watercourses. Experts currently place the entire number of soldiers at 8,000 – with 130 chariots (130 cm long), 530 horses and 150 cavalry horses helping to ward off any dangers in the afterlife. In contrast, the burial of Tutankhamun yielded six complete but dismantled chariots of unparalleled richness and sophistication. Each was designed for two people (90 cm long) and had its axle sawn through to enable it to be brought along the narrow corridor into the tomb.

Excavation of ancient Chinese chariots has confirmed the descriptions of them in the earliest texts. Wheels were constructed from a variety of woods: elm provided the hub, rose-wood the spokes and oak the felloes. The hub was drilled through to form an empty space into which the tempered axle was fitted, the whole being covered with leather to retain lubricating oil. Though the number of spokes varied, a wheel by the fourth century BC usually had eighteen to thirty-two of them. Records show how elaborate was the testing of each completed wheel: flotation and weighing were regarded as the best measures of balance, but even the empty spaces in the assembly were checked with millet grains. One outstanding constructional asset of the ancient Chinese wheel was dishing. Dishing refers to the dish-like shape of an advanced wooden wheel, which looks rather like a flat cone. On occasion they chose to strengthen a dished wheel with a pair of struts running from rim to rim on each of the hub. As these extra supports were inserted separately into the felloes, they would have added even greater strength to the wheel. Leather wrapped up the edge of the wheel aimed to retain bronze.

Within a millennium, however, Chinese chariot-makers had developed a vehicle with shafts, the precursor of the true carriage or cart. This design did not make its appearance in Europe until the end of the Roman Empire. Because the shafts curved upwards, and the harness pressed against a horse's shoulders, not his neck, the shaft chariot was incredibly efficient. The halberd was also part of a chariot standard weaponry. This halberd usually measured well over 3 metres in length, which meant that a chariot warrior wielding it sideways could strike down the charioteer in a passing chariot. The speed of the chariot which was tested on the sand was quite fast. At speed these passes were very dangerous for the crews of both chariots.

The advantages offered by the new chariots were not entirely missed. They could see how there were literally the Warring States, whose conflicts lasted down the Qin unification of China. Qin Shi Huang was buried in the most opulent tomb complex ever constructed in China, a sprawling, city-size collection of underground caverns containing everything the emperor would need for the afterlife. Even a collection of terracotta armies called Terra-Cotta Warriors was buried in it. The ancient Chinese, along with many cultures including ancient Egyptians, believed that items and even people buried with a person could be taken with him to the afterlife.

**Questions 14-17**

Do the following statements agree with the information given in Reading Passage 2?

*In boxes 14-17 on your answer sheet, write*

**TRUE**                      *if the statement agrees with the information*

**FALSE**                    *if the statement contradicts the information*

**NOT GIVEN**          *if there is no information on this*

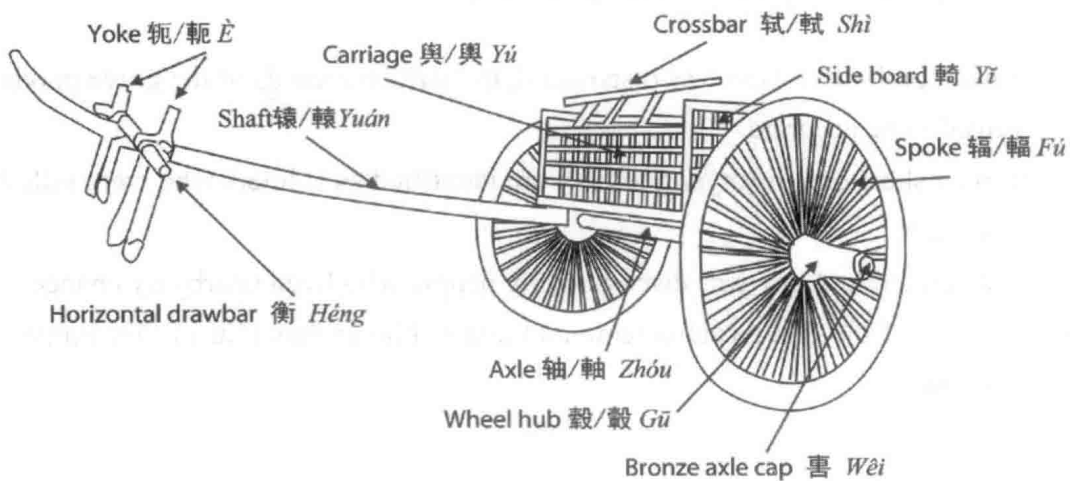
- 14 When Tomb of Fu Hao was discovered, the written records of the grave goods proved to be accurate.
- 15 Human skeletons in Anyang tomb were identified as soldiers who were killed in the war.
- 16 The Terracotta Army was discovered by people who lived nearby by chance.
- 17 The size of the King Tutankhamun's tomb is bigger than that of Qin Emperor's tomb.

## Questions 18-23

Complete the notes below.

Choose **NO MORE THAN TWO WORDS AND/OR NUMBERS** from the passage for each answer.

Write your answers in boxes 18-23 on your answer sheet.



- 18 The hub is made of wood from the tree of \_\_\_\_\_.
- 19 The room through the hub was to put tempered axle, which is wrapped up by leather, aiming to retain \_\_\_\_\_.
- 20 The number of spokes varies from \_\_\_\_\_.
- 21 The shape of wheel resembles a \_\_\_\_\_.
- 22 Two \_\_\_\_\_ was used to strengthen the wheel.
- 23 The edge of the wheel was wrapped up by leather aiming to retain \_\_\_\_\_.

## Questions 24-26

*Answer the questions below.*

*Choose **NO MORE THAN TWO WORDS** from the passage for each answer.*

*Write your answers in boxes 24-26 on your answer sheet.*

- 24 What body part of the horse was released from pressure to the horse shoulder after the appearance of the shafts?
- 25 What kind of road surface did the researchers measure the speed of the chariot on?
- 26 What part of the afterlife palace was the Emperor Qin Shi Huang buried in?



## READING PASSAGE 3

You should spend about 20 minutes on **Questions 27-40**, which are based on Reading Passage 3 below.

**Stealth Forces in Weight Loss**

*The field of weight loss is like the ancient fable about the blind men and the elephant. Each man investigates a different part of the animal and reports back, only to discover their findings are bafflingly incompatible.*

- A** The various findings by public-health experts, physicians, psychologists, geneticists, molecular biologists, and nutritionists are about as similar as an elephant's tusk is to its tail. Some say obesity is largely predetermined by our genes and biology; others attribute it to an overabundance of fries, soda, and screen-sucking; still others think we're fat because of viral infection, insulin, or the metabolic conditions we encountered in the womb. "Everyone subscribes to their own little theory," says Robert Berkowitz, medical director of the Center for Weight and Eating Disorders at the University of Pennsylvania School of Medicine. We're programmed to hang onto the fat we have, and some people are predisposed to create and carry more fat than others. Diet and exercise help, but in the end the solution will inevitably be more complicated than pushing away the plate and going for a walk. "It's not as simple as 'You're fat because you're lazy,'" says Nikhil Dhurandhar, an associate professor at Pennington Biomedical Research Center in Baton Rouge. "Willpower is not a prerogative of thin people. It's distributed equally."
- B** Science may still be years away from giving us a miracle formula for fat-loss. Hormone leptin is a crucial player in the brain's weight-management circuitry. Some people produce too little leptin; others become desensitised to it. And when obese people lose weight, their leptin levels plummet along with their metabolism. The body becomes more efficient at using fuel and conserving fat, which makes it tough to keep the weight off. Obese dieters' bodies go into a state of chronic hunger, a feeling Rudolph Leibel, an obesity researcher at Columbia University, compares to thirst. "Some people might be able to tolerate chronic thirst, but the majority couldn't stand it," says Leibel. "Is that a behavioural problem — a lack of willpower? I don't think so."
- C** The government has long espoused moderate daily exercise — of the evening-walk or take-the-stairs variety — but that may not do much to budge the needle on the scale. A 150-pound person burns only 150 calories on a half-hour walk, the equivalent of two apples. It's good for the heart, less so for the gut. "Radical changes are necessary," says Deirdre Barrett, a psychologist at Harvard Medical School and author of *Waistland*. "People don't lose weight by choosing the small fries or taking a little walk every other day." Barrett suggests taking a cue from the members of the National Weight Control Registry (NWCR), a self-selected group of more than 5,000 successful weight-lossers who have shed an average of 66 pounds and kept it off 5.5 years. Some registry members lost weight using low-carb diets; some went low-fat; others eliminated refined foods. Some did it on their own; others relied on counselling. That said, not everyone can lose 66 pounds and not everyone needs to. The goal shouldn't

be getting thin, but getting healthy. It's enough to whittle your weight down to the low end of your set range, says Jeffrey Friedman, a geneticist at Rockefeller University. Losing even 10 pounds vastly decreases your risk of diabetes, heart disease, and high blood pressure. The point is to not give up just because you don't look like a swimsuit model.

- D** The negotiation between your genes and the environment begins on day one. Your optimal weight, writ by genes, appears to get edited early on by conditions even before birth, inside the womb. If a woman has high blood-sugar levels while she's pregnant, her children are more likely to be overweight or obese, according to a study of almost 10,000 mother-child pairs. Maternal diabetes may influence a child's obesity risk through a process called metabolic imprinting, says Teresa Hillier, an endocrinologist with Kaiser Permanente's Center for Health Research and the study's lead author. The implication is clear: Weight may be established very early on, and obesity largely passed from mother to child. Numerous studies in both animals and humans have shown that a mother's obesity directly increases her child's risk for weight gain. The best advice for moms-to-be: Get fit before you get pregnant. You'll reduce your risk of complications during pregnancy and increase your chances of having a normal-weight child.
- E** It's the \$64,000 question: Which diets work? It got people wondering: Isn't there a better way to diet? A study seemed to offer an answer. The paper compared two groups of adults: those who, after eating, secreted high levels of insulin, a hormone that sweeps blood sugar out of the bloodstream and promotes its storage as fat, and those who secreted less. Within each group, half were put on a low-fat diet and half on a low-glycemic-load diet. On average, the low-insulin-secreting group fared the same on both diets, losing nearly 10 pounds in the first six months — but they gained about half of it back by the end of the 18-month study. The high-insulin group didn't do as well on the low-fat plan, losing about 4.5 pounds, and gaining back more than half by the end. But the most successful were the high-insulin-secretors on the low-glycemic-load diet. They lost nearly 13 pounds and kept it off.
- F** What if your fat is caused not by diet or genes, but by germs — say, a virus? It sounds like a sci-fi horror movie, but research suggests some dimension of the obesity epidemic may be attributable to infection by common viruses, says Dhurandhar. The idea of “infectobesity” came to him 20 years ago when he was a young doctor treating obesity in Bombay. He discovered that a local avian virus, SMAM-1, caused chickens to die, sickened with organ damage but also, strangely, with lots of abdominal fat. In experiments, Dhurandhar found that SMAM-1-infected chickens became obese on the same diet as uninfected ones, which stayed svelte.
- G** He later moved to the U.S. and onto a bona fide human virus, adenovirus 36 (AD-36). In the lab, every species of animal Dhurandhar infected with the virus became obese — chickens got fat, mice got fat, even rhesus monkeys at the zoo that picked up the virus from the environment suddenly gained 15 percent of their body weight upon exposure. In his latest studies, Dhurandhar has isolated a gene that, when blocked from expressing itself, seems to turn off the virus's fattening power. Stem cells extracted from fat cells and then exposed to AD-36 reliably blossom into fat cells — but when stem cells are exposed to an AD-36 virus with the key gene inhibited, the stems cells don't differentiate. The gene appears to be necessary and sufficient to trigger AD-36-related obesity, and the goal is to use the research to create a sort of obesity vaccine.

## Questions 27-31

Reading Passage 3 has seven paragraphs, A-G.

Which paragraph contains the following information?

*Write the Correct letter, A-G, in boxes 27-31 on your answer sheet.*

**NB** You may use any letter more than once.

- 27 evaluation on the effect of weight loss on different kinds of diets
- 28 an example of a research which includes the relatives of the participants
- 29 an example of a group of people who did not regain weight immediately after weight loss
- 30 long term hunger may appear to be acceptable to some of the participants during the period of losing weight program
- 31 a continuous experiment may lead to a practical application besides diet or hereditary resort

### Questions 32-36

Look at the following findings (Questions 32-36) and the list of researchers below.

Match each finding with the correct researcher, **A-F**.

Write the correct letter, **A-F**, in boxes 32-36 on your answer sheet.

**NB** You may use any letter more than once.

- 32 A person's weight is determined by the interaction of his/her DNA and the environment.
- 33 Pregnant mothers who are overweight may risk their fetus in gaining weight.
- 34 The aim of losing weight should be keeping healthy rather than being attractive.
- 35 Small changes in lifestyle will not help in reducing much weight.
- 36 Researchers can be divided into different groups with their own point of view about weight loss.

#### List of Researchers

- A** Robert Berkowitz
- B** Rudolph Leibel
- C** Nikhil Dhurandhar
- D** Deirdre Barrett
- E** Jeffrey Friedman
- F** Teresa Hillier

## Questions 37-40

Complete the sentences below.

Choose **ONE WORD AND/OR A NUMBER** from the passage for each answer.

Write your answers in boxes 37-40 on your answer sheet.

In Bombay Clinic, a young doctor who came up with the concept ‘infectobesity’ believed that the obesity is caused by a kind of virus. For years, he conducted experiments on 37 \_\_\_\_\_. Finally, later as he moved to America, he identified a new virus named 38 \_\_\_\_\_ which proved to be a significant breakthrough in inducing more weight. Although there seems no way to eliminate the virus till now, a kind of 39 \_\_\_\_\_ can be separated as to block the effectiveness of the virus. In the future, the doctor is aiming at developing a new 40 \_\_\_\_\_ which might effectively combat against the virus.

# TEST 2

## READING PASSAGE 1

You should spend about 20 minutes on **Questions 1-13**, which are based on Reading Passage 1 below.

### Andrea Palladio: Italian Architect

*A new exhibition celebrates Palladio's architecture 500 years on*

Vicenza is a pleasant, prosperous city in the Veneto, 60 km west of Venice. Its grand families settled and farmed the area from the 16th century. But its principal claim to fame is Andrea Palladio, who is such an influential architect that a neoclassical style is known as Palladian. The city is a permanent exhibition of some of his finest buildings, and as he was born — in Padua, to be precise — 500 years ago, the International Centre for the Study of Palladio's Architecture has an excellent excuse for mounting *la grande mostra*, the big show.

The exhibition has the special advantage of being held in one of Palladio's buildings, Palazzo Barbaran da Porto. Its bold façade is a mixture of rustication and decoration set between two rows of elegant columns. On the second floor the pediments are alternately curved or pointed, a Palladian trademark. The harmonious proportions of the atrium at the entrance lead through to a dramatic interior of fine fireplaces and painted ceilings. Palladio's design is simple, clear and not over-crowded. The show has been organised on the same principles, according to Howard Burns, the architectural historian who co-curated it.

Palladio's father was a miller who settled in Vicenza, where the young Andrea was apprenticed to a skilled stonemason. How did a humble miller's son become a world renowned architect? The answer in the exhibition is that, as a young man, Palladio excelled at carving decorative stonework on columns, doorways and fireplaces. He was plainly intelligent, and lucky enough to come across a rich patron, Gian Giorgio Trissino, a landowner and scholar, who organised his education, taking him to Rome in the 1540s, where he studied the mas-



terpieces of classical Roman and Greek architecture and the work of other influential architects of the time, such as Donato Bramante and Raphael.

Burns argues that social mobility was also important. Entrepreneurs, prosperous from agriculture in the Veneto, commissioned the promising local architect to design their country villas and their urban mansions. In Venice the aristocracy were anxious to co-opt talented artists, and Palladio was given the chance to design the buildings that have made him famous — the churches of San Giorgio Maggiore and the Redentore, both easy to admire because they can be seen from the city's historical centre across a stretch of water.

He tried his hand at bridges — his unbuilt version of the Rialto Bridge was decorated with the large pediment and columns of a temple — and, after a fire at the Ducal Palace, he offered an alternative design which bears an uncanny resemblance to the Banqueting House in Whitehall in London. Since it was designed by Inigo Jones, Palladio's first foreign disciple, this is not as surprising as it sounds.

Jones, who visited Italy in 1614, bought a trunk full of the master's architectural drawings; they passed through the hands of the Dukes of Burlington and Devonshire before settling at the Royal Institute of British Architects in 1894. Many are now on display at Palazzo Barbaran. What they show is how Palladio drew on the buildings of ancient Rome as models. The major theme of both his rural and urban building was temple architecture, with a strong pointed pediment supported by columns and approached by wide steps.

Palladio's work for rich landowners alienates unreconstructed critics on the Italian left, but among the papers in the show are designs for cheap housing in Venice. In the wider world, Palladio's reputation has been nurtured by a text he wrote and illustrated, "Quattro Libri dell'Architettura". His influence spread to St Petersburg and to Charlottesville in Virginia, where Thomas Jefferson commissioned a Palladian villa he called Monticello.

Vicenza's show contains detailed models of the major buildings and is leavened by portraits of Palladio's teachers and clients by Titian, Veronese and Tintoretto; the paintings of his Venetian buildings are all by Canaletto, no less. This is an uncompromising exhibition; many of the drawings are small and faint, and there are no sideshows for children, but the impact of harmonious lines and satisfying proportions is to impart in a viewer a feeling of benevolent calm. Palladio is history's most therapeutic architect.

"Palladio, 500 Anni: *La Grande Mostra*" is at Palazzo Barbaran da Porto, Vicenza, until January 6th 2009. The exhibition continues at the Royal Academy of Arts, London, from January 31st to April 13th, and travels afterwards to Barcelona and Madrid.

### Questions 1-7

Do the following statements agree with the information given in Reading Passage 1?

In boxes 1-7 on your answer sheet, write

**TRUE** if the statement agrees with the information

**FALSE** if the statement contradicts the information

**NOT GIVEN** if there is no information on this

- 1 The building where the exhibition is staged has been newly renovated.
- 2 Palazzo Barbaran da Porto typically represents the Palladio's design.
- 3 Palladio's father worked as an architect.
- 4 Palladio's family refused to pay for his architectural studies.
- 5 Palladio's alternative design for the Ducal Palace in Venice was based on an English building.
- 6 Palladio designed for both wealthy and poor people.
- 7 The exhibition includes paintings of people by famous artists.

## Questions 8-13

*Complete the sentences below.*

*Choose **NO MORE THAN THREE WORDS** from the passage for each answer.*

*Write your answers in boxes 8-13 on your answer sheet.*

- 8 What job was Palladio training for before he became an architect?
- 9 Who arranged Palladio's architectural studies?
- 10 Who was the first non-Italian architect influenced by Palladio?
- 11 What type of Ancient Roman buildings most heavily influenced Palladio's work?
- 12 What did Palladio write that strengthened his reputation?
- 13 In the writer's opinion, what feeling will visitors to the exhibition experience?

## READING PASSAGE 2

*You should spend about 20 minutes on Questions 14-26, which are based on Reading Passage 2 on the following pages.*

### Questions 14-20

Reading passage 2 has seven paragraphs, A-G.

*Choose the correct heading for each paragraph from the list of headings below.*

*Write the correct number, i-viii, in boxes 14-20 on your answer sheet.*

#### List of Headings

- i** How CSR may help one business to expand
- ii** CSR in many aspects of a company's business
- iii** A CSR initiative without a financial gain
- iv** Lack of action by the state of social issues
- v** Drives or pressures motivate companies to address CSR
- vi** The past illustrates business are responsible for future outcomes
- vii** Companies applying CSR should be selective
- viii** Reasons that business and society benefit each other

- 14** Paragraph A
- 15** Paragraph B
- 16** Paragraph C
- 17** Paragraph D
- 18** Paragraph E
- 19** Paragraph F
- 20** Paragraph G

# Corporate Social Responsibility

*Broadly speaking, proponents of CSR have used four arguments to make their case: moral obligation, sustainability, license to operate, and reputation. The moral appeal — arguing that companies have a duty to be good citizens and to “do the right thing” — is prominent in the goal of Business for Social Responsibility, the leading nonprofit CSR business association in the United States. It asks that its members “achieve commercial success in ways that honour ethical values and respect people, communities, and the natural environment.” Sustainability emphasises environmental and community stewardship.*

- A** An excellent definition was developed in the 1980s by Norwegian Prime Minister Gro Harlem Brundtland and used by the World Business Council for Sustainable Development: “Meeting the needs of the present without compromising the ability of future generations to meet their own needs.” Nowadays, governments and companies need to account for the social consequences of their actions. As a result, corporate social responsibility (CSR) has become a priority for business leaders around the world. When a well-run business applies its vast resources and expertise to social problems that it understands and in which it has a stake, it can have a greater impact than any other organization. The notion of license to operate derives from the fact that every company needs tacit or explicit permission from governments, communities, and numerous other stakeholders to justify CSR initiatives to improve a company's image, strengthen its brand, enliven morale and even raise the value of its stock.
- B** To advance CSR, we must root it in a broad understanding of the interrelationship between a corporation and society. Successful corporations need a healthy society. Education, health care, and equal opportunity are essential to a productive workforce. Safe products and working conditions not only attract customers but lower the internal costs of accidents. Efficient utilization of land, water, energy, and other natural resources makes business more productive. Good government, the rule of law, and property rights are essential for efficiency and innovation. Strong regulatory standards protect both consumers and competitive companies from exploitation. Ultimately, a healthy society creates expanding demand for business, as more human needs are met and aspirations grow. Any business that pursues its ends at the expense of the society in which it operates will find its success to be illusory and ultimately temporary. At the same time, a healthy society needs successful companies. No social program can rival the business sector when it comes to creating the jobs, wealth, and innovation that improve standards of living and social conditions over time.
- C** A company's impact on society also changes over time, as social standards evolve and science progresses. Asbestos, now understood as a serious health risk, was thought to be safe in the early 1900s, given the scientific knowledge then available. Evidence of its risks gradually mounted for more than 50 years before any company was held liable for the harms it can cause. Many firms that failed to anticipate the consequences of this evolving body of research have been bankrupted by the results. No longer can companies be content to monitor only the obvious social impacts of today. Without a careful process for identifying evolving social effects of tomorrow, firms may risk their very survival.
- D** No business can solve all of society's problems or bear the cost of doing so. Instead, each company must select issues that intersect with its particular business. Other social agendas are best left to those companies in other industries, NGOs, or government institutions that are better positioned to address them. The essential test that should guide CSR is not whether a cause is worthy but whether it presents an opportunity to create shared value — that is, a meaningful benefit for society that is also

valuable to the business. Each company can identify the particular set of societal problems that it is best equipped to help resolve and from which it can gain the greatest competitive benefit.

- E** The best corporate citizenship initiatives involve far more than writing a check: They specify clear, measurable goals and track results over time. A good example is General Electronics's program to adopt underperforming public high schools near several of its major U.S. facilities. The company contributes between \$250,000 and \$1 million over a five-year period to each school and makes in-kind donations as well. GE managers and employees take an active role by working with school administrators to assess needs and mentor or tutor students. In an independent study of ten schools in the program between 1989 and 1999, nearly all showed significant improvement, while the graduation rate in four of the five worst performing schools doubled from an average of 30% to 60%. Effective corporate citizenship initiatives such as this one create goodwill and improve relations with local governments and other important constituencies. What's more, GE's employees feel great pride in their participation. Their effect is inherently limited, however. No matter how beneficial the program is, it remains incidental to the company's business, and the direct effect on GE's recruiting and retention is modest.
- F** Microsoft's Working Connections partnership with the American Association of Community Colleges (AACC) is a good example of a shared-value opportunity arising from investments in context. The shortage of information technology workers is a significant constraint on Microsoft's growth; currently, there are more than 450,000 unfilled IT positions in the United States alone. Community colleges, with an enrollment of 11.6 million students, representing 45% of all U.S. undergraduates, could be a major solution. Microsoft recognizes, however, that community colleges face special challenges: IT curricula are not standardized, technology used in classrooms is often outdated, and there are no systematic professional development programs to keep faculty up to date. Microsoft's \$50 million five-year initiative was aimed at all three problems. In addition to contributing money and products, Microsoft sent employee volunteers to colleges to assess needs, contribute to curriculum development, and create faculty development institutes. Microsoft has achieved results that have benefited many communities while having a direct-and potentially significant-impact on the company.
- G** At the heart of any strategy is a unique value proposition: a set of needs a company can meet for its chosen customers that others cannot. The most strategic CSR occurs when a company adds a social dimension to its value proposition, making social impact integral to the overall strategy. Consider Whole Foods Market, whose value proposition is to sell organic, natural, and healthy food products to customers who are passionate about food and the environment. The company's sourcing emphasises purchases from local farmers through each store's procurement process. Buyers screen out foods containing any of nearly 100 common ingredients that the company considers unhealthy or environmentally damaging. The same standards apply to products made internally. Whole Foods' commitment to natural and environmentally friendly operating practices extends well beyond sourcing. Stores are constructed using a minimum of virgin raw materials. Recently, the company purchased renewable wind energy credits equal to 100% of its electricity use in all of its stores and facilities, the only Fortune 500 company to offset its electricity consumption entirely. Spoiled produce and biodegradable waste are trucked to regional centers for composting. Whole Foods' vehicles are being converted to run on biofuels. Even the cleaning products used in its stores are environmentally friendly. And through its philanthropy, the company has created the Animal Compassion Foundation to develop more natural and humane ways of raising farm animals. In short, nearly every aspect of the company's value chain reinforces the social dimensions of its value proposition, distinguishing Whole Foods from its competitors.



## Questions 21-22

Complete the summary below.

Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

Write your answers in boxes 21-22 on your answer sheet.

### The implement of CSR, HOW?

Promotion of CSR requires the understanding of interdependence between business and society. Corporations workers' productivity generally needs health care, education, and given 21 \_\_\_\_\_. Restrictions imposed by government and companies both protect consumers from being treated unfairly. Improvement of the safety standard can reduce the 22 \_\_\_\_\_ of accidents in the workplace. Similarly society becomes a pool of more human needs and aspirations.

## Questions 23-26

Look at the following opinions or deeds (Questions 23-26) and the list of companies below.

Match each opinion or deed with the correct company, **A**, **B** or **C**.

Write the correct letter, **A**, **B** or **C** in boxes 23-26 on your answer sheet.

**NB** You may use any letter more than once.

- 23 The disposable waste
- 24 The way company purchases its goods
- 25 Helping the undeveloped
- 26 Ensuring the people have the latest information

### List of Companies

- A** General Electronics
- B** Microsoft
- C** Whole Foods Market

## READING PASSAGE 3

You should spend about 20 minutes on **Questions 27-40**, which are based on Reading Passage 3 below.

### The Significant Role of Mother Tongue in Education

One consequence of population mobility is an increasing diversity within schools. To illustrate, in the city of Toronto in Canada, 58% of kindergarten pupils come from homes where English is not the usual language of communication. Schools in Europe and North America have experienced this diversity for years, and educational policies and practices vary widely between countries and even within countries. Some political parties and groups search for ways to solve the problem of diverse communities and their integration in schools and society. However, they see few positive consequences for the host society and worry that this diversity threatens the identity of the host society. Consequently, they promote unfortunate educational policies that will make the "problem" disappear. If students retain their culture and language, they are viewed as less capable of identifying with the mainstream culture and learning the mainstream language of the society.

The challenge for educators and policy-makers is to shape the evolution of national identity in such a way that the rights of all citizens (including school children) are respected, and the cultural, linguistic, and economic resources of the nation are maximised. To waste the resources of the nation by discouraging children from developing their mother tongues is quite simply unintelligent from the point of view of national self-interest. A first step in providing an appropriate education for culturally and linguistically diverse children is to examine what the existing research says about the role of children's mother tongues in their educational development.

In fact, the research is very clear. When children continue to develop their abilities in two or more languages throughout their primary school, they gain a deeper understanding of language and how to use it effectively. They have more practice in processing language, especially when they develop literacy in both. More than 150 research studies conducted during the past 35 years strongly support what Goethe, the famous eighteenth-century German philosopher, once said: the person who knows only one language does not truly know that language. Research suggests that bilingual children may also develop more flexibility in their thinking as a result of processing information through two different languages.

The level of development of children's mother tongue is a strong predictor of their second language development. Children who come to school with a solid foundation in their mother tongue develop stronger literacy abilities in the school language. When parents and other caregivers (e.g. grandparents) are able to spend time with their children and tell stories or discuss issues with them in a way that

develops their mother tongue, children come to school well-prepared to learn the school language and succeed educationally. Children's knowledge and skills transfer across languages from the mother tongue to the school language. Transfer across languages can be two-way: both languages nurture each other when the educational environment permits children access to both languages.

Some educators and parents are suspicious of mother tongue-based teaching programs because they worry that they take time away from the majority language. For example, in a bilingual program where 50% of the time is spent teaching through children's home language and 50% through the majority language, surely children won't progress as far in the latter? One of the most strongly established findings of educational research, however, is that well-implemented bilingual programs can promote literacy and subject-matter knowledge in a minority language without any negative effects on children's development in the majority language. Within Europe, the Foyer program in Belgium, which develops children's speaking and literacy abilities in three languages (their mother tongue, Dutch and French), most clearly illustrates the benefits of bilingual and trilingual education (see Cummins, 2000).

It is easy to understand how this happens. When children are learning through a minority language, they are learning concepts and intellectual skills too. Pupils who know how to tell the time in their mother tongue understand the concept of telling time. In order to tell time in the majority language, they do not need to re-learn the concept. Similarly, at more advanced stages, there is transfer across languages in other skills such as knowing how to distinguish the main idea from the supporting details of a written passage or story, and distinguishing fact from opinion. Studies of secondary school pupils are providing interesting findings in this area, and it would be worth extending this research.

Many people marvel at how quickly bilingual children seem to "pick up" conversational skills in the majority language at school (although it takes much longer for them to catch up with native speakers in academic language skills). However, educators are often much less aware of how quickly children can lose their ability to use their mother tongue, even in the home context. The extent and rapidity of language loss will vary according to the concentration of families from a particular linguistic group in the neighborhood. Where the mother tongue is used extensively in the community, then language loss among young children will be less. However, where language communities are not concentrated in particular neighborhoods, children can lose their ability to communicate in their mother tongue within 2-3 years of starting school. They may retain receptive skills in the language but they will use the majority language in speaking with their peers and siblings and in responding to their parents. By the time children become adolescents, the linguistic division between parents and children has become an emotional chasm. Pupils frequently become alienated from the cultures of both home and school with predictable results.

## Questions 27-30

Choose the correct letter, **A**, **B**, **C** or **D**.

Write the correct letter in boxes 27-30 on your answer sheet.

- 27 What point did the writer make in the second paragraph?
- A Some present studies on children's mother tongues are misleading.
  - B A culturally rich education programme benefits some children more than others.
  - C Bilingual children can make a valuable contribution to the wealth of a country.
  - D The law on mother tongue use at school should be strengthened.
- 28 Why does the writer refer to something that Goethe said?
- A to lend weight to his argument
  - B to contradict some research
  - C to introduce a new concept
  - D to update current thinking
- 29 The writer believes that when young children have a firm grasp of their mother tongue
- A they can teach older family members what they learnt at school.
  - B they go on to do much better throughout their time at school.
  - C they can read stories about their cultural background.
  - D they develop stronger relationships with their family than with their peers.
- 30 Why are some people suspicious about mother tongue-based teaching programmes?
- A They worry that children will be slow to learn to read in either language.
  - B They think that children will confuse words in the two languages.
  - C They believe that the programmes will make children less interested in their lessons.
  - D They fear that the programmes will use up valuable time in the school day.

## Questions 31-35

Complete the summary using the list of words, **A-J**, below.

Write the correct letter, **A-J**, in boxes 31-35 on your answer sheet.

### Bilingual Children

It was often recorded that bilingual children acquire the **31** \_\_\_\_\_ to converse in the majority language remarkable quickly. The fact that the mother tongue can disappear at a similar **32** \_\_\_\_\_ is less well understood. This phenomenon depends, to a certain extent, on the proposition of people with the same linguistic background that have settled in a particular **33** \_\_\_\_\_. If this is limited, children are likely to lose the active use of their mother tongue. And thus no longer employ it even with **34** \_\_\_\_\_, although they may still understand it. It follows that teenager children in these circumstances experience a sense of **35** \_\_\_\_\_ in relation to all aspects of their lives.

- |                        |                 |                      |
|------------------------|-----------------|----------------------|
| <b>A</b> teachers      | <b>B</b> school | <b>C</b> dislocation |
| <b>D</b> rate          | <b>E</b> time   | <b>F</b> family      |
| <b>G</b> communication | <b>H</b> type   | <b>I</b> ability     |
| <b>J</b> area          |                 |                      |

## Questions 36-40

Do the following statements agree with the views of the writer in Reading passage 3?

In boxes 36-40 on your answer sheet, write

- YES** *if the statement agrees with the views of the writer*  
**NO** *if the statement contradicts the views of the writer*  
**NOT GIVEN** *if it is impossible to say what the writer thinks about this*

- 36 Less than half of the children who attend kindergarten in Toronto have English as their mother tongue.
- 37 Research proves that learning the host country language at school can have an adverse effect on a child's mother tongue.
- 38 The Foyer program is accepted by the French education system.
- 39 Bilingual children are taught to tell the time earlier than monolingual children.
- 40 Bilingual children can apply reading comprehension strategies acquired in one language when reading in the other.



# TEST 3

## READING PASSAGE 1

*You should spend about 20 minutes on Questions 1-13, which are based on Reading Passage 1 below.*

### Voyage of Going: Beyond the Blue Line 2

- A** One feels a certain sympathy for Captain James Cook on the day in 1778 that he “discovered” Hawaii. Then on his third expedition to the Pacific, the British navigator had explored scores of islands across the breadth of the sea, from lush New Zealand to the lonely wastes of Easter Island. This latest voyage had taken him thousands of miles north from the Society Islands to an archipelago so remote that even the old Polynesians back on Tahiti knew nothing about it. Imagine Cook’s surprise, then, when the natives of Hawaii came paddling out in their canoes and greeted him in a familiar tongue, one he had heard on virtually every mote of inhabited land he had visited. Marveling at the ubiquity of this Pacific language and culture, he later wondered in his journal: “How shall we account for this Nation spreading itself so far over this vast ocean?”
- B** Answers have been slow in coming. But now a startling archaeological find on the island of Éfaté, in the Pacific nation of Vanuatu, has revealed an ancient seafaring people, the distant ancestors of today’s Polynesians, taking their first step into the unknown. The discoveries there have also opened a window into the shadowy world of those early voyagers. At the same time, other pieces of this human puzzle are turning up in unlikely places. Climate data gleaned from slow-growing corals around the Pacific and from sediments in alpine lakes in South America may help explain how, more than a thousand years later, a second wave of seafarers beat their way across the entire Pacific.
- C** “What we have is a first- or second-generation site containing the graves of some of the Pacific’s first explorers,” says Spriggs, professor of archaeology at the Australian National University and co-leader of an international team excavating the site. It came to light only by luck. A backhoe operator, digging up topsoil in the ground of a derelict coconut plantation, scraped open a grave — the first of dozens in a burial ground some 3,000 years old. It is the oldest cemetery ever found in the Pacific islands, and it harbors the bones of an ancient people archaeologists call the Lapita, a label that derives from a beach in New Caledonia, where a landmark cache of their pottery was found in the 1950s. They were daring blue-water adventurers who roved the sea not just as explorers but also as pioneers, bringing along everything they would need to build new lives — their families and livestock, taro seedlings and stone tools.
- D** Within the span of a few centuries the Lapita stretched the boundaries of their world from the jungle-clad volcanoes of Papua New Guinea to the loneliest coral outliers of Tonga, at least 2,000 miles eastward in the Pacific. Along the way they explored millions of square miles of unknown sea, discovering and colonizing scores of tropical islands never before seen by human eyes: Vanuatu, New Caledonia, Fiji, Samoa.
- E** What little is known or surmised about them has been pieced together from fragments of pottery, animal bones, obsidian flakes, and such oblique sources as comparative linguistics and geochemistry. Although their voyages can be traced back to the northern islands of Papua New Guinea, their language — variants of which are still

spoken across the Pacific — came from Taiwan. And their peculiar style of pottery decoration, created by pressing a carved stamp into the clay, probably had its roots in the northern Philippines. With the discovery of the Lapita cemetery on Éfaté, the volume of data available to researchers has expanded dramatically. The bones of at least 62 individuals have been uncovered so far — including old men, young women, even babies — and more skeletons are known to be in the ground. Archaeologists were also thrilled to discover six complete Lapita pots. It's an important find, Spriggs says, for it conclusively identifies the remains as Lapita. "It would be hard for anyone to argue that these aren't Lapita when you have human bones enshrined inside what is unmistakably a Lapita urn."

- F** Several lines of evidence also undergird Spriggs's conclusion that this was a community of pioneers making their first voyages into the remote reaches of Oceania. For one thing, the radiocarbon dating of bones and charcoal places them early in the Lapita expansion. For another, the chemical makeup of the obsidian flakes littering the site indicates that the rock wasn't local; instead it was imported from a large island in Papua New Guinea's Bismarck Archipelago, the springboard for the Lapita's thrust into the Pacific. A particularly intriguing clue comes from chemical tests on the teeth of several skeletons. DNA teased from these ancient bones may also help answer one of the most puzzling questions in Pacific anthropology: Did all Pacific islanders spring from one source or many? Was there only one outward migration from a single point in Asia, or several from different points? "This represents the best opportunity we've had yet," says Spriggs, "to find out who the Lapita actually were, where they came from, and who their closest descendants are today."
- G** There is one stubborn question for which archaeology has yet to provide any answers: How did the Lapita accomplish the ancient equivalent of a moon landing, many times over? No one has found one of their canoes or any rigging, which could reveal how the canoes were sailed. Nor do the oral histories and traditions of later Polynesians offer any insights, for they segue into myth long before they reach as far back in time as the Lapita. "All we can say for certain is that the Lapita had canoes that were capable of ocean voyages, and they had the ability to sail them," says Geoff Irwin, a professor of archaeology at the University of Auckland and an avid yachtsman. Those sailing skills, he says, were developed and passed down over thousands of years by earlier mariners who worked their way through the archipelagoes of the western Pacific, making short crossings to islands within sight of each other. Reaching Fiji, as they did a century or so later, meant crossing more than 500 miles of ocean, pressing on day after day into the great blue void of the Pacific. What gave them the courage to launch out on such a risky voyage?
- H** The Lapita's thrust into the Pacific was eastward, against the prevailing trade winds, Irwin notes. Those nagging headwinds, he argues, may have been the key to their success. "They could sail out for days into the unknown and reconnoiter, secure in the knowledge that if they didn't find anything, they could turn about and catch a swift ride home on the trade winds. It's what made the whole thing work." Once out there, skilled seafarers would detect abundant leads to follow to land: seabirds and turtles, coconuts and twigs carried out to sea by the tides, and the afternoon pileup of clouds on the horizon that often betokens an island in the distance. Some islands may have broadcast their presence with far less subtlety than a cloud bank. Some of the most violent eruptions anywhere on the planet during the past 10,000 years occurred in Melanesia, which sits nervously in one of the most explosive volcanic regions on Earth. Even less spectacular eruptions would have sent plumes of smoke billowing into the stratosphere and rained ash for hundreds of miles. It's possible that the Lapita saw these signs of distant islands and later sailed off in their direction, knowing they would find land. For returning explorers, successful or not, the geography of their own archipelagoes provided a safety net to keep them from overshooting their home ports and sailing off into eternity.
- I** However they did it, the Lapita spread themselves a third of the way across the Pacific, then called it quits for reasons known only to them. Ahead lay the vast emptiness of the central Pacific, and perhaps they were too thinly stretched to venture farther. They probably never numbered more than a few thousand in total, and in their rapid migration eastward they encountered hundreds of islands — more than 300 in Fiji alone. Still, more than a millennium would pass before the Lapita's descendants, a people we now call the Polynesians, struck out in search of new territory.

## Questions 1-7

Do the following statements agree with the claims of the writer in Reading Passage 1?

*In boxes 1-7 on your answer sheet, write*

**YES** *if the statement agrees with the claims of the writer*

**NO** *if the statement contradicts the claims of the writer*

**NOT GIVEN** *if it is impossible to say what the writer thinks about this*

- 1 Captain Cook once expected the Hawaii to speak another language.
- 2 Captain Cook depicted numbers of cultural aspects of Polynesians in his journal.
- 3 Professor Spriggs and his research team went to the Éfaté to try to find the site of ancient cemetery.
- 4 The Lapita completed a journey of around 2,000 miles in a period less than a century.
- 5 The Lapita were the first inhabitants in many Pacific islands.
- 6 The urn buried in Éfaté site was plain as it was without any decoration.
- 7 The unknown pots discovered in Éfaté had once been used for cooking.

## Questions 8-10

Complete the summary below.

Choose **ONE WORD ONLY** from the passage for each answer.

Write your answers in boxes 8-10 on your answer sheet.

### Scientific Evidence Found in the Éfaté Site

Tests show the human remains and the charcoal found in the buried urn are from the start of the Lapita period. Yet the **8** \_\_\_\_\_ covering many of the Éfaté site did not come from that area.

Then examinations carried out on the **9** \_\_\_\_\_ discovered at the Éfaté site reveal that not everyone buried there was a native living in the area. In fact, DNA could assist in the identifying of the Lapita's nearest present-day **10** \_\_\_\_\_.

## Questions 11-13

Answer the questions below.

Choose **NO MORE THAN THREE WORDS** from the passage for each answer.

Write your answers in boxes 11-13 on your answer sheet.

- 11 What did the Lapita travel in when they crossed the ocean?
- 12 In Irwin's view, what would the Latipa have relied on to bring them fast back to the base?
- 13 Which sea creatures would have been an indication to the Lapita of where to find land?

## READING PASSAGE 2

You should spend about 20 minutes on Questions 14-26, which are based on Reading Passage 2 below.

### Does IQ Test Prove Creativity?

*Everyone has creativity, some a lot more than others. The development of humans, and possibly the universe, depends on it. Yet creativity is an elusive creature. What do we mean by it? What is going on in our brains when ideas form? Does it feel the same for artists and scientists? We asked writers and neuroscientists, pop stars and AI gurus to try to deconstruct the creative process — and learn how we can all ignite the spark within.*

In the early 1970s, creativity was still seen as a type of intelligence. But when more subtle tests of IQ and creative skills were developed in the 1970s, particularly by the father of creativity testing, Paul Torrance, it became clear that the link was not so simple. Creative people are intelligent, in terms of IQ tests at least, but only averagely or just above. While it depends on the discipline, in general beyond a certain level IQ does not help boost creativity; it is necessary, but not sufficient to make someone creative.

Because of the difficulty of studying the actual process, most early attempts to study creativity concentrated on personality. According to creativity specialist Mark Runco of California State University, Fullerton, the “creative personality” tends to place a high value on aesthetic qualities and to have broad interests, providing lots of resources to draw on and knowledge to recombine into novel solutions. “Creatives” have an attraction to complexity and an ability to handle conflict. They are also usually highly self-motivated, perhaps even a little obsessive.

But there may be a price to pay for having a creative personality. For centuries, a link has been made between creativity and mental illness. Psychiatrist Jamison of Johns Hopkins University in Baltimore, Maryland, found that established artists are significantly more likely to have mood disorders. But she also suggests that a change of mood state might be the key to triggering a creative event, rather than the negative mood itself. Intelligence can help channel this thought style into great creativity, but when combined with emotional problems, lateral, divergent or open thinking can lead to mental illness instead.

Jordan Peterson, a psychologist at the University of Toronto, Canada, believes he has identified a mechanism that could help explain this. He says that the brains of creative people seem more open to incoming stimuli than less creative types. Our senses are continuously feeding a mass of information into our brains, which have to block or ignore most of it to save us from being snowed under. Peterson calls this process latent inhibition, and argues that people who have less of it, and who have a reasonably high IQ with a good working memory can juggle more of the data, and so may be open to more possibilities and ideas. The downside of extremely low latent inhibition may be a confused thought style that predisposes people to mental illness. So for Peterson, mental illness is not a prerequisite for creativity, but it shares

some cognitive traits.

But what of the creative act itself? One of the first studies of the creative brain at work was by Colin Martindale, a psychologist from the University of Maine in Orono. Back in 1978, he used a network of scalp electrodes to record an electroencephalogram, a record of the pattern of brain waves, as people made up stories. Creativity has two stages: inspiration and elaboration, each characterised by very different states of mind. While people were dreaming up their stories, he found their brains were surprisingly quiet. The dominant activity was alpha waves, indicating a very low level of cortical arousal: a relaxed state, as though the conscious mind was quiet while the brain was making connections behind the scenes. It's the same sort of brain activity as in some stages of sleep, dreaming or rest, which could explain why sleep and relaxation can help people be creative. However, when these quiet-minded people were asked to work on their stories, the alpha wave activity dropped off and the brain became busier, revealing increased cortical arousal, more corraling of activity and more organised thinking. Strikingly, it was the people who showed the biggest difference in brain activity between the inspiration and development stages who produced the most creative storylines. Nothing in their background brain activity marked them as creative or uncreative. "It's as if the less creative person can't shift gear," says Guy Claxton, a psychologist at the University of Bristol, UK. "Creativity requires different kinds of thinking. Very creative people move between these states intuitively." Creativity, it seems, is about mental flexibility: perhaps not a two-step process, but a toggling between two states.

Paul Howard-Jones, who works with Claxton at Bristol, believes he has found another aspect of creativity. He asked people to make up a story based on three words and scanned their brains using functional magnetic resonance imaging. In one trial, people were asked not to try too hard and just report the most obvious story suggested by the words. In another, they were asked to be inventive. He also varied the words so it was easier or harder to link them. As people tried harder and came up with more creative tales, there was a lot more activity in a particular prefrontal brain region on the right-hand side. So part of creativity is a conscious process of evaluating and analysing ideas. The test also shows that the more we try and are stretched, the more creative our minds can be.

And creativity need not always be a solitary, tortured affair, according to Teresa Amabile of Harvard Business School. Though there is a slight association between solitary writing or painting and negative moods or emotional disturbances, scientific creativity and workplace creativity seem much more likely to occur when people are positive and buoyant. In a decade-long study of real businesses, to be published soon, Amabile found that positive moods relate positively to creativity in organisations, and that the relationship is a simple linear one. Creative thought also improves people's moods, her team found, so the process is circular.

Another often forgotten aspect of creativity is social. Vera John-Steiner of the University of New Mexico says that to be really creative you need strong social networks and trusting relationships, not just active neural networks. One vital characteristic of a highly creative person, she says, is that they have at least one other person in their life who doesn't think they are completely nuts.



## Questions 14-17

Do the following statements agree with the information given in Reading Passage 2?

In boxes 14-17 on your answer sheet, write

- TRUE** if the statement agrees with the information  
**FALSE** if the statement contradicts the information  
**NOT GIVEN** if there is no information on this

- 14 High IQ guarantees better creative ability in one person than that who achieves an average score in an IQ test.
- 15 In a competitive society, individuals' language proficiency is more important than other abilities.
- 16 A wider range of resources and knowledge can be integrated by more creative people into bringing about creative approaches.
- 17 A creative person does not necessarily suffer more mental illness.

## Questions 18-22

Use the information in the passage to match the people (listed A-F) with the opinions or deeds below.

Write the appropriate letter, A-F, in boxes 18-22 on your answer sheet.

### List of People

- A Jamison
- B Jordan Peterson
- C Guy Claxton
- D Paul Howard-Jones
- E Teresa Amabile
- F Vera John-Steiner

- 18 Instead of producing a negative mood, the shift of mood states may be an important factor of inducing a creative thinking.
- 19 Where the more positive moods individuals achieve, there is higher creativity in organisations.
- 20 Good interpersonal relationship and trust contribute to a person with more creativity.
- 21 Creativity demands an ability that can easily change among different kinds of thinking.
- 22 Creative minds can be upgraded if we put into more practice in assessing and processing ideas.

## Questions 23-26

Complete the sentences below.

Choose **NO MORE THAN THREE WORDS** from the passage for each answer.

Write your answers in boxes 23-26 on your answer sheet.

But what of the creative act itself? In 1978, Colin Martindale made records of the pattern of brain waves as people made up stories by applying a system constituted of many 23 \_\_\_\_\_. The two phases of creativity, such as 24 \_\_\_\_\_ were found. While people were still planning their stories, their brains showed little active sign and the mental activity showed a very relaxed state as the same sort of brain activity as in sleep, dreaming or rest. However, experiment proved the signal of 25 \_\_\_\_\_ went down and the brain became busier, revealing increased cortical arousal, when these people who were in a laidback state were required to produce their stories. Strikingly, it was found the person who was perceived to have the greatest 26 \_\_\_\_\_ in brain activity between the two stages, produced storylines with highest level of creativity.

## READING PASSAGE 3

You should spend about 20 minutes on **Questions 27-40**, which are based on Reading Passage 3 below.

### MONKEYS AND FORESTS

AS AN EAST WIND blasts through a gap in the Cordillera de Tilarán, a rugged mountain range that splits northern Costa Rica in half, a female mantled howler monkey moves through the swaying trees of the forest canopy.

- A** Ken Glander, a primatologist from Duke University, gazes into the canopy, tracking the female's movements. Holding a dart gun, he waits with infinite patience for the right moment to shoot. With great care, Glander aims and fires. Hit in the rump, the monkey wobbles. This howler belongs to a population that has lived for decades at Hacienda La Pacifica, a working cattle ranch in Guanacaste province. Other native primates — white-faced capuchin monkeys and spider monkeys — once were common in this area, too, but vanished after the Pan-American Highway was built nearby in the 1950s. Most of the surrounding land was clear-cut for pasture.
- B** Howlers persist at La Pacifica, Glander explains, because they are leaf-eaters. They eat fruit, when it's available but, unlike capuchin and spider monkeys, do not depend on large areas of fruiting trees. "Howlers can survive anywhere you have half a dozen trees, because their eating habits are so flexible," he says. In forests, life is an arms race between trees and the myriad creatures that feed on leaves. Plants have evolved a variety of chemical defenses, ranging from bad-tasting tannins, which bind with plant-produced nutrients, rendering them indigestible, to deadly poisons, such as alkaloids and cyanide.
- C** All primates, including humans, have some ability to handle plant toxins. "We can detoxify a dangerous poison known as caffeine, which is deadly to a lot of animals," Glander says. For leaf-eaters, long-term exposure to a specific plant toxin can increase their ability to defuse the poison and absorb the leaf nutrients. The leaves that grow in regenerating forests, like those at La Pacifica, are actually more howler friendly than those produced by the undisturbed, centuries-old trees that survive farther south, in the Amazon Basin. In younger forests, trees put most of their limited energy into growing wood, leaves and fruit, so they produce much lower levels of toxin than do well-established, old-growth trees.
- D** The value of maturing forests to primates is a subject of study at Santa Rosa National Park, about 35 miles northwest of Hacienda La Pacifica. The park hosts populations not only of mantled howlers but also of white-faced capuchins and spider monkeys. Yet the forests there are young, most of them less than 50 years old. Capuchins were the first

to begin using the reborn forests, when the trees were as young as 14 years. Howlers, larger and heavier than capuchins, need somewhat older trees, with limbs that can support their greater body weight. A working ranch at Hacienda La Pacifica also explains their population boom in Santa Rosa. "Howlers are more resilient than capuchins and spider monkeys for several reasons," Fedigan explains. "They can live within a small home range, as long as the trees have the right food for them. Spider monkeys, on the other hand, occupy a huge home range, so they can't make it in fragmented habitat."

- E** Howlers also reproduce faster than do other monkey species in the area. Capuchins don't bear their first young until about 7 years old, and spider monkeys do so even later, but howlers give birth for the first time at about 3.5 years of age. Also, while a female spider monkey will have a baby about once every four years, well-fed howlers can produce an infant every two years.
- F** The leaves howlers eat hold plenty of water, so the monkeys can survive away from open streams and water holes. This ability gives them a real advantage over capuchin and spider monkeys, which have suffered during the long, ongoing drought in Guanacaste.
- G** Growing human population pressures in Central and South America have led to persistent destruction of forests. During the 1990s, about 1.1 million acres of Central American forest were felled yearly. Alejandro Estrada, an ecologist at *Estacion de Biologia Los Tuxtlas* in Veracruz, Mexico, has been exploring how monkeys survive in a landscape increasingly shaped by humans. He and his colleagues recently studied the ecology of a group of mantled howler monkeys that thrive in a habitat completely altered by humans: a cacao plantation in Tabasco, Mexico. Like many varieties of coffee, cacao plants need shade to grow, so 40 years ago the landowners planted fig, monkey pod and other tall trees to form a protective canopy over their crop. The howlers moved in about 25 years ago after nearby forests were cut. This strange habitat, a hodgepodge of cultivated native and exotic plants, seems to support about as many monkeys as would a same-sized patch of wild forest. The howlers eat the leaves and fruit of the shade trees, leaving the valuable cacao pods alone, so the farmers tolerate them.
- H** Estrada believes the monkeys bring underappreciated benefits to such farms, dispersing the seeds of fig and other shade trees and fertilizing the soil with feces. He points out that howler monkeys live in shade coffee and cacao plantations in Nicaragua and Costa Rica as well as in Mexico. Spider monkeys also forage in such plantations, though they need nearby areas of forest to survive in the long term. He hopes that farmers will begin to see the advantages of associating with wild monkeys, which includes potential ecotourism projects.

"Conservation is usually viewed as a conflict between agricultural practices and the need to preserve nature," Estrada says. "We're moving away from that vision and beginning to consider ways in which agricultural activities may become a tool for the conservation of primates in human-modified landscapes."

**Questions 27-32**

Reading Passage 3 has eight paragraphs, **A-H**.

Which paragraph contains the following information?

*Write the correct letter, **A-H**, in boxes 27-32 on your answer sheet.*

- 27** A reference of rate of reduction in forest habitats
- 28** An area where only one species of monkey survived while other two species vanished
- 29** A reason for howler monkeys to choose new leaves as food over old ones
- 30** Mention of howler monkey's diet and eating habits
- 31** A reference of asking farmers' to change attitude towards wildlife
- 32** The advantage of howler monkey's flexibility in living in a segmented habitat

## Questions 33-35

Look at the list of places and the following descriptions below.

Match each description with the correct place, **A-E**.

Write your answers, **A-E**, in boxes 33-35 on your answer sheet.

### List of Places

- A** Hacienda La Pacifica
- B** Santa Rosa National Park
- C** A cacao plantation in Tabasco, Mexico
- D** Estacion de Biologia Los Tuxtlas in Veracruz, Mexico
- E** Amazon Basin

- 33** A place where howler monkeys benefit the local region's agriculture
- 34** A place where it is the original home for all three native monkeys
- 35** A place where capuchin monkeys came to a better habitat



## Questions 36-40

Complete the sentences below.

Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

Write your answers in boxes 36-40 on your answer sheet.

### **The reasons why howler monkeys survive better in local region than the other two species**

- Howlers live better in La Pacifica since they can feed themselves with leaves when **36** \_\_\_\_\_ is not easily found.
- Howlers have better ability to alleviate the **37** \_\_\_\_\_ which old and young trees used to protect themselves.
- When compared to that of spider monkeys and capuchin monkeys, the **38** \_\_\_\_\_ rate of howlers is relatively faster (round for just every 2 years).
- The monkeys can survive away from open streams and water holes as the leaves that howlers eat hold high content of **39** \_\_\_\_\_, which helps them to resist the continuous **40** \_\_\_\_\_ in Guanacaste.

# TEST 4

## READING PASSAGE 1

You should spend about 20 minutes on **Questions 1-13**, which are based on Reading Passage 1 below.

### T-rex: Hunter or Scavenger?

Jack Horner is an unlikely academic: his dyslexia is so bad that he has trouble reading a book. But he can read the imprint of life in sandstone or muddy shale across a distance of 100 years, and it is this gift that has made him curator of palaeontology at Montana State University's Museum of the Rockies, the leader of a multi-million dollar scientific project to expose a complete slice of life 68 million years ago, and a consultant to Steven Spielberg and other Hollywood figures.

His father had a sand and gravel quarry in Montana, and the young Horner was a collector of stones and bones, complete with notes about when and where he found them. "My father had owned a ranch when he was younger, in Montana," he says. "He was enough of a geologist, being a sand and gravel man, to have a pretty good notion that they were dinosaur bones. So when I was eight years old he took me back to the area that had been his ranch, to where he had seen these big old bones. I picked up one, I am pretty sure it was the upper arm bone of a duckbilled dinosaur: it probably wasn't a duckbilled dinosaur but closely related to that. I catalogued it, and took good care of it, and then later when I was in high school, excavated my first dinosaur skeleton. It obviously started earlier than eight and I literally have been driven ever since. I feel like I was born this way."

Horner spent seven years at university, but never graduated. "I have a learning disability, I would call it a learning difference — dyslexia, they call it — and I just had a terrible time with English and foreign languages and things like that. For a degree in geology or biology they required two years of a foreign language. There was no way in the world I could do that. In fact, I didn't really pass English. So I couldn't get a degree, I just wasn't capable of it. But I took all of the courses required and I wrote a thesis and I did all sorts of things. So I have the education, I just don't have the piece of paper," he says.

"We definitely know we are working on a very broad coastal plain with the streams and rivers bordered by conifers and hardwood plants, and the areas in between these rivers were probably fern-covered. There were no grasses at all: just ferns and bushes — an unusual landscape, kind of taking the south-eastern United States — Georgia, Florida — and mixing

it with the moors of England and flattening it out," he says. "Triceratops is very common: they are the cows of the Cretaceous, they are everywhere. Duckbilled dinosaurs are relatively common but not as common as triceratops and T-rex, for a meat-eating dinosaur, is very common. What we would consider the predator-prey ratio seems really off the scale. What is interesting is the little dromaeosaurs, the ones we know for sure were good predators, are haven't been found."

That is why he sees T-rex not as the lion of the Cretaceous savannah but its vulture. "Look at the wildebeest that migrate in the Serengeti of Africa, a million individuals lose about 200,000 individuals in that annual migration. There is a tremendous carrion base there. And so you have hyenas, you have tremendous numbers of vultures that are scavenging, you don't have all that many animals that are good predators. If T-rex was a top predator, especially considering how big it is, you'd expect it to be extremely rare, much rarer than the little dromaeosaurs, and yet they are everywhere, they are a dime a dozen," he says. A 12-tonne T-rex is a lot of vulture, but he doesn't see the monster as clumsy. He insisted his theory and finding, dedicated to further research upon it, of course, he would like to reevaluate if there is any case that additional evidence found or explanation raised by others in the future.

He examined the leg bones of the T-rex, and compared the length of the thigh bone (upper leg) to the shin bone (lower leg). He found that the thigh bone was equal in length or slightly longer than the shin bone, and much thicker and heavier, which proves that the animal was built to be a slow walker rather than fast running. On the other hand, the fossils of fast hunting dinosaurs always showed that the shin bone was longer than the thigh bone. This same truth can be observed in many animals of today which are designed to run fast: the ostrich, cheetah, etc.

He also studied the fossil teeth of the T-rex, and compared them with the teeth of the Velociraptor, and put the nail in the coffin of the "hunter T-rex theory". The Velociraptor's teeth which like stake knives: sharp, razor-edged, and capable of tearing through flesh with ease. The T-rex's teeth were huge, sharp at their tip, but blunt, propelled by enormous jaw muscles, which enabled them to only crush bones.

With the evidence presented in his documentary, Horner was able to prove that the idea of the T-rex as being a hunting and ruthless killing machine is probably just a myth. In light of the scientific clues he was able to unearth, the T-rex was a slow, sluggish animal which had poor vision, an extraordinary sense of smell, that often reached its "prey" after the real hunters were done feeding, and sometimes it had to scare the hunters away from a corpse. In order to do that, the T-rex had to have been ugly, nasty-looking, and stinky. This is actually true of nearly all scavenger animals. They are usually vile and nasty looking.

## Questions 1-7

Do the following statements agree with the information given in Reading Passage 1?

In boxes 1-7 on your answer sheet, write

**TRUE** if the statement agrees with the information

**FALSE** if the statement contradicts the information

**NOT GIVEN** if there is no information in this passage

- 1 Jack Horner knew exactly that the bone picked up in his father's ranch belonged to a certain dinosaur when he was at the age of 8.
- 2 Jack Horner achieved a distinctive degree in university when he graduated.
- 3 Jack Horner believes that the number of prey should be more than that of predators.
- 4 T-rex's number is equivalent to the number of vulture in the Serengeti.
- 5 The hypothesis that T-rex is the top predator conflicts with the fact of predator-prey ratio which Jack found.
- 6 Jack Horner refused to accept any other viewpoints about T-rex's theory.
- 7 Jack Horner is the first man that discovered T-rex's bones in the world.

### Questions 8-13

Complete the sentences below.

Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

Write your answers in boxes 8-13 on your answer sheet.

Jack Horner found that T-rex's 8 \_\_\_\_\_ is shorter than the thigh bone, which demonstrates that it was actually a 9 \_\_\_\_\_, unlike other swift animals such as ostrich or 10 \_\_\_\_\_ that was built to 11 \_\_\_\_\_. Another explanation supports his idea is that T-rex's teeth were rather 12 \_\_\_\_\_, which only allowed T-rex to 13 \_\_\_\_\_ hard bones instead of tearing flesh like Velociraptor.

## READING PASSAGE 2

*You should spend about 20 minutes on Questions 14-26, which are based on Reading Passage 2 below.*

## LEAF-CUTTING ANTS AND FUNGUS

- A** The ants and their agriculture have been extensively studied over the years, but the recent research has uncovered intriguing new findings about the fungus they cultivate, how they domesticated it and how they cultivate it and preserve it from pathogens. For example, the fungus farms, which the ants were thought to keep free of pathogens, turn out to be vulnerable to a devastating mold, found nowhere else but in ants' nests. To keep the mold in check, the ants long ago made a discovery that would do credit to any pharmaceutical laboratory.
- B** Leaf-cutting ants and their fungus farms are a marvel of nature and perhaps the best known example of symbiosis, the mutual dependence of two species. The ants' achievement is remarkable — the biologist Edward O. Wilson has called it "one of the major breakthroughs in animal evolution" — because it allows them to eat, courtesy of their mushroom's digestive powers, the otherwise poisoned harvest of tropical forests whose leaves are laden with terpenoids, alkaloids and other chemicals designed to sicken browsers.
- C** Fungus growing seems to have originated only once in evolution, because all gardening ants belong to a single tribe, the descendants of the first fungus farmer. There are more than 200 known species of the attine ant tribe, divided into 12 groups, or genera. The leaf-cutters use fresh vegetation; the other groups, known as the lower attines because their nests are smaller and their techniques more primitive, feed their gardens with detritus like dead leaves, insects and feces. In 1994 a team of four biologists, Ulrich G. Mueller and Ted R. Schultz from Cornell University and Ignacio H. Chapela and Stephen A. Rehner from the United States Department of Agriculture, analyzed the DNA of ant funguses. The common assumption that the funguses are all derived from a single strain, they found, was only half true.
- D** The leaf-cutters' fungus was indeed descended from a single strain, propagated clonally, or just by budding, for at least 23 million years. But the lower attine ants used different varieties of the fungus, and in one case a quite separate species, the four biologists discovered. Cameron R. Currie, a Ph.D. student in the University of Toronto, it seemed to Mr. Currie, resembled the monocultures of various human crops, that are very productive for a while and then succumb to some disastrous pathogen, such as the Irish potato blight. Monocultures, which lack the genetic diversity to respond to changing environmental threats, are sitting ducks for parasites. Mr. Currie felt there had to be a parasite in the ant-fungus system. But a century of ant research offered no support for the idea. Textbooks describe how leaf-cutter ants scrupulously weed their gardens of all foreign organisms. "People kept telling me, 'You know the ants keep their gardens free of parasites, don't you?'" Mr. Currie said of his efforts

to find a hidden interloper.

- E** But after three years of sifting through attine ant gardens, Mr. Currie discovered they are far from free of infections. In last month's issue of the *Proceedings of the National Academy of Sciences*, he and two colleagues, Dr. Mueller and David Mairoch, isolated several alien organisms, particularly a family of parasitic molds called *Escovopsis*. *Escovopsis* turns out to be a highly virulent pathogen that can devastate a fungus garden in a couple of days. It blooms like a white cloud, with the garden dimly visible underneath. In a day or two the whole garden is enveloped. "Other ants won't go near it and the ants associated with the garden just starve to death," Dr. Rehner said. "They just seem to give up, except for those that have rescued their larvae."
- F** Evidently the ants usually manage to keep *Escovopsis* and other parasites under control. But with any lapse in control, or if the ants are removed, *Escovopsis* will quickly burst forth. Although new leaf-cutter gardens start off free of *Escovopsis*, within two years some 60 percent become infected. The discovery of *Escovopsis*'s role brings a new level of understanding to the evolution of the attine ants. "In the last decade, evolutionary biologists have been increasingly aware of the role of parasites as driving forces in evolution," Dr. Schultz said. There is now a possible reason to explain why the lower attine species keep changing the variety of fungus in their mushroom gardens, and occasionally domesticating new ones — to stay one step ahead of the relentless *Escovopsis*.
- G** Interestingly, Mr. Currie found that the leaf-cutters had in general fewer alien molds in their gardens than the lower attines, yet they had more *Escovopsis* infections. It seems that the price they pay for cultivating a pure variety of fungus is a higher risk from *Escovopsis*. But the leaf-cutters may have little alternative: they cultivate a special variety of fungus which, unlike those grown by the lower attines, produces nutritious swollen tips for the ants to eat.
- H** Discovery of a third partner in the ant-fungus symbiosis raises the question of how the attine ants, especially the leaf-cutters, keep this dangerous interloper under control. Amazingly enough, Mr. Currie has again provided the answer. "People have known for a hundred years that ants have a whitish growth on the cuticle," said Dr. Mueller, referring to the insects' body surface. "People would say this is like a cuticular wax. But Cameron was the first one in a hundred years to put these things under a microscope. He saw it was not inert wax. It is alive." Mr. Currie discovered a specialised patch on the ants' cuticle that harbours a particular kind of bacterium, one well known to the pharmaceutical industry, because it is the source of half the antibiotics used in medicine. From each of 22 species of attine ant studied, Mr. Cameron and colleagues isolated a species of *Streptomyces* bacterium, they reported in *Nature* in April. The *Streptomyces* does not have much effect on ordinary laboratory fungi. But it is a potent poisoner of *Escovopsis*, inhibiting its growth and suppressing spore formation. Because both the leaf-cutters and the lower attines use *Streptomyces*, the bacterium may have been part of their symbiosis for almost as long as the *Escovopsis* mold. If so, some Alexander Fleming of an ant discovered antibiotics millions of years before people did. Even now, the ants are accomplishing two feats beyond the powers of human technology. The leaf-cutters are growing a monocultural crop year after year without disaster, and they are using an antibiotic apparently so wisely and prudently that, unlike people, they are not provoking antibiotic resistance in the target pathogen.



## Questions 14-19

Use the information in the passage to match the options (listed A-C) with the activities or features of ants below.

Write the appropriate letters, A-C, in boxes 14-19 on your answer sheet.

**NB** You may use any letter more than once.

- A** Leaf-cutting ants
- B** Lower attine ants
- C** Both leaf-cutting ants and lower attine ants

- 14** can use toxic leaves to feed fungus
- 15** build small nests and live with different foreign fungus
- 16** use dead vegetation to feed fungus
- 17** raise a single fungus which do not live with other variety of foreigners
- 18** normally keep a highly dangerous parasite under control
- 19** use special strategies to fight against Escovopsis

**Questions 20-24**

Reading Passage 2 has eight paragraphs, **A-H**.

Which paragraph contains the following information?

*Write the correct letter, **A-H**, in boxes 20-24 on your answer sheet.*

- 20** Dangerous outcome of Escovopsis
- 21** Risk of growing single fungus
- 22** Comparison of the features of two different nests for feeding gardens
- 23** Discovery of significant achievements made by ants earlier than human
- 24** Advantages of growing a new breed of fungus in the ant farm

## Questions 25-26

Choose the correct letter, **A**, **B**, **C** or **D**.

Write your answers in boxes 25-26 on your answer sheet.

- 25** What does the author think of Currie's opinion on the saying "ants keep their gardens free of parasites"?
- A** His viewpoint was verified later.
  - B** His earlier study has sufficient evidence immediately.
  - C** There is no detail mentioned in the article.
  - D** His opinion was proved to be wrong later on.
- 26** What did scientists find on the skin of ants under microscope?
- A** some white cloud mold embed in their skin
  - B** that wax is all over their skin
  - C** a substance which is useful to humans
  - D** a substance which suppresses growth of all fungus

## READING PASSAGE 3

You should spend about 20 minutes on **Questions 27-40**, which are based on Reading Passage 3 below.

### Honey Bees in Trouble

*Can native pollinators fill the gap?*

Recently, ominous headlines have described a mysterious ailment, colony collapse disorder (CCD), which is wiping out the honeybees that pollinate many crops. Without honeybees, the story goes, fields will be sterile, economies will collapse, and food will be scarce.

But what few accounts acknowledge is that what's at risk is not itself a natural state of affairs. For one thing, in the United States, where CCD was first reported and has had its greatest impacts, honeybees are not a native species. Pollination in modern agriculture isn't alchemy, it's industry. The total number of hives involved in the U.S. pollination industry has been somewhere between 2.5 million and 3 million in recent years. Meanwhile, American farmers began using large quantities of organophosphate insecticides, planted large-scale crop monocultures, and adopted "clean farming" practices that scrubbed native vegetation from field margins and roadsides. These practices killed many native bees outright — they're as vulnerable to insecticides as any agricultural pest — and made the agricultural landscape inhospitable to those that remained. Concern about these practices and their effects on pollinators isn't new, in her 1962 ecological alarm cry *Silent Spring*, Rachel Carson warned of a 'Fruitless Fall' that could result from the disappearance of insect pollinators.

If that 'Fruitless Fall' has not — yet — occurred, it may be largely thanks to the honeybee, which farmers turned to as the ability of wild pollinators to service crops declined. The honeybee has been semi-domesticated since the time of the ancient Egyptians, but it wasn't just familiarity that determined this choice: the bees' biology is in many ways suited to the kind of agricultural system that was emerging. For example, honeybee hives can be closed up and moved out of the way when pesticides are applied to a field. The bees are generalist pollinators, so they can be used to pollinate many different crops. And although they are not the most efficient pollinator of every crop, honeybees have strength in numbers, with 20,000 to 100,000 bees living in a single hive. "Without a doubt, if there was one bee you wanted for agriculture, it would be the honeybee," says Jim Cane, of the U.S. Department of Agriculture. The honeybee, in other words, has become a crucial cog in the modern system of industrial agriculture. That system delivers more food, and more kinds of it, to more places, more cheaply than ever before. But that system is also vulnerable, because making a farm field into the photosynthetic equivalent of a factory floor, and pollination into a series of continent-long assembly lines, also leaches out some of the resilience characteristic of natural ecosystems.

Breno Freitas, an agronomist in Brazil, pointed out that in nature such a high degree of specialisation usually is a very dangerous game: it works well while all the rest is in equilibrium, but runs

quickly to extinction at the least disbalance. In effect, by developing an agricultural system that is heavily reliant on a single pollinator species, we humans have become riskily overspecialised. And when the human-honeybee relationship is disrupted, as it has been by colony collapse disorder, the vulnerability of that agricultural system begins to become clear.

In fact, a few wild bees are already being successfully managed for crop pollination. “The problem is trying to provide native bees in adequate numbers on a reliable basis in a fairly short number of years in order to service the crop,” Jim Cane says. “You’re talking millions of flowers per acre in a two-to three-week time frame, or less, for a lot of crops.” On the other hand, native bees can be much more efficient pollinators of certain crops than honeybees, so you don’t need as many to do the job. For example, about 750 blue orchard bees (*Osmia lignaria*) can pollinate a hectare of apples or almonds, a task that would require roughly 50,000 to 150,000 honeybees. There are bee tinkers engaged in similar work in many corners of the world. In Brazil, Breno Freitas has found that *Centris tarsata*, the native pollinator of wild cashew, can survive in commercial cashew orchards if growers provide a source of floral oils, such as by interplanting their cashew trees with Caribbean cherry.

In certain places, native bees may already be doing more than they’re getting credit for. Ecologist Rachael Winfree recently led a team that looked at pollination of four summer crops (tomato, watermelon, peppers, and muskmelon) at 29 farms in the region of New Jersey and Pennsylvania. Winfree’s team identified 54 species of wild bees that visited these crops, and found that wild bees were the most important pollinators in the system: even though managed honeybees were present on many of the farms, wild bees were responsible for 62 percent of flower visits in the study. In another study focusing specifically on watermelon, Winfree and her colleagues calculated that native bees alone could provide sufficient pollination at 90 percent of the 23 farms studied. By contrast, honeybees alone could provide sufficient pollination at only 78 percent of farms.

“The region I work in is not typical of the way most food is produced,” Winfree admits. In the Delaware Valley, most farms and farm fields are relatively small, each farmer typically grows a variety of crops, and farms are interspersed with suburbs and other types of land use which means there are opportunities for homeowners to get involved in bee conservation, too. The landscape is a bee-friendly patchwork that provides a variety of nesting habitat and floral resources distributed among different kinds of crops, weedy field margins, fallow fields, suburban neighborhoods, and semi natural habitat like old woodlots, all at a relatively small scale. In other words, “pollinator-friendly” farming practices would not only aid pollination of agricultural crops, but also serve as a key element in the over all conservation strategy for wild pollinators, and often aid other wild species as well.

Of course, not all farmers will be able to implement all of these practices. And researchers are suggesting a shift to a kind of polyglot agricultural system. For some small-scale farms, native bees may indeed be all that’s needed. For larger operations, a suite of managed bees — with honeybees filling the generalist role and other, native bees pollinating specific crops — could be augmented by free pollination services from resurgent wild pollinators. In other words, they’re saying, we still have an opportunity to replace a risky monoculture with something diverse, resilient, and robust.

## Questions 27-30

Do the following statements agree with the claims of the writer in Reading Passage 3?

In boxes 27-30 on your answer sheet, write

- YES** if the statement agrees with the claims of the writer  
**NO** if the statement contradicts the claims of the writer  
**NOT GIVEN** if it is impossible to say what the writer thinks about this

- 27 In the United States, farmers use honeybees in a large scale over the past few years.  
 28 Clean farming practices would be harmful to farmers' health.  
 29 The blue orchard bee is the most efficient pollinator for every crop.  
 30 It is beneficial to other local creatures to protect native bees.

## Questions 31-35

Choose the correct letter, **A**, **B**, **C** or **D**.

Write your answers in boxes 31-35 on your answer sheet.

- 31 The example of the 'Fruitless Fall' underlines the writer's point about
- A needs for using pesticides.
  - B impacts of losing insect pollinators.
  - C vulnerabilities of native bees.
  - D benefits in building more pollination industries.
- 32 Why can honeybees adapt to the modern agricultural system?
- A The honeybees can pollinate more crops efficiently.
  - B The bees are semi-domesticated since ancient times.
  - C Honeybee hives can be protected from pesticides.
  - D The ability of wild pollinators using to serve crops declines.
- 33 The writer mentions factories and assembly lines to illustrate
- A one drawback of the industrialised agricultural system.
  - B a low cost in modern agriculture.
  - C the role of honeybees in pollination.
  - D what a high yield of industrial agriculture.
- 34 In the 6th paragraph, Winfree's experiment proves that
- A honeybees can pollinate various crops.
  - B there are many types of wild bees as the pollinators.
  - C wild bees can increase the yield to a higher percentage.
  - D wild bees work more efficiently as a pollinator than honeybees in certain cases.

- 35 What does the writer want to suggest in the last paragraph?
- A the importance of honeybees in pollination
  - B the adoption of different bees in various sizes of agricultural system
  - C the comparison between the intensive and the rarefied agricultural system
  - D the reason why farmers can rely on native pollinators



## Questions 36-40

Complete each sentence with the correct ending, A-F, below.

Write the correct letter, A-F, in boxes 36-40 on your answer sheet.

- 36 Headlines of colony collapse disorder state that
- 37 Viewpoints of Freitas manifest that
- 38 Examples of blue orchard bees have shown that
- 39 *Centris tarsata* is mentioned to exemplify that
- 40 One finding of the research in Delaware Valley is that

- |   |
|---|
| <p>A native pollinators can survive when a specific plant is supplied.</p> <p>B it would cause severe consequences to both commerce and agriculture.</p> <p>C honeybees can not be bred.</p> <p>D some agricultural landscapes are favourable in supporting wild bees.</p> <p>E a large scale of honeybees are needed to pollinate.</p> <p>F an agricultural system is fragile when relying on a single pollinator.</p> |
|---|

# TEST 5

## READING PASSAGE 1

You should spend about 20 minutes on **Questions 1-13**, which are based on Reading Passage 1 below.

### Ants Could Teach Ants

The ants are tiny and usually nest between rocks in the south coast of England. Transformed into research subjects at the University of Bristol, they raced along a tabletop foraging for food — and then, remarkably, returned to guide others. Time and again, followers trailed behind leaders, darting this way and that along the route, presumably to memorise landmarks. Once a follower got its bearings, it tapped the leader with its antennae, prompting the lesson to literally proceed to the next step. The ants were only looking for food, but the researchers said the careful way the leaders led followers — thereby turning them into leaders in their own right — marked the *Temnothorax albipennis* ant as the very first example of a non-human animal exhibiting teaching behaviour.

“Tandem running is an example of teaching, to our knowledge the first in a non-human animal, that involves bidirectional feedback between teacher and pupil,” remarks Nigel Franks, professor of animal behaviour and ecology, whose paper on the ant educators was published last week in the journal *Nature*.

No sooner was the paper published, of course, than another educator questioned it. Marc Hauser, a psychologist and biologist and one of the scientists who came up with the definition of teaching, said it was unclear whether the ants had learned a new skill or merely acquired new information.

Later, Franks took a further study and found that there were even races between leaders. With the guidance of leaders, ants could find food faster. But the help comes at a cost for the leader, who normally would have reached the food about four times faster if not hampered by a follower. This means the hypothesis that the leaders deliberately slowed down in order to pass the skills on to the followers seems potentially valid. His ideas were advocated by the students who carried out the video project with him.

Opposing views still arose, however. Hauser noted that mere communication of information is commonplace in the animal world. Consider a species, for example, that uses alarm calls to warn fellow members about the presence of a predator. Sounding the alarm can be costly,

because the animal may draw the attention of the predator to itself. But it allows others to flee to safety. “Would you call this teaching?” wrote Hauser. “The caller incurs a cost. The naive animals gain a benefit and new knowledge that better enables them to learn about the predator’s location than if the caller had not called. This happens throughout the animal kingdom, but we don’t call it teaching, even though it is clearly transfer of information.”

Tim Caro, a zoologist, presented two cases of animal communication. He found that cheetah mothers that take their cubs along on hunts gradually allow their cubs to do more of the hunting — going, for example, from killing a gazelle and allowing young cubs to eat to merely tripping the gazelle and letting the cubs finish it off. At one level, such behaviour might be called teaching — except the mother was not really teaching the cubs to hunt but merely facilitating various stages of learning. In another instance, birds watching other birds using a stick to locate food such as insects and so on, are observed to do the same thing themselves while finding food later.

Psychologists study animal behaviour in part to understand the evolutionary roots of human behaviour, Hauser said. The challenge in understanding whether other animals truly teach one another, he added, is that human teaching involves a “theory of mind” — teachers are aware that students don’t know something. He questioned whether Franks’s leader ants really knew that the follower ants were ignorant. Could they simply have been following an instinctive rule to proceed when the followers tapped them on the legs or abdomen? And did leaders that led the way to food — only to find that it had been removed by the experimenter — incur the wrath of followers? That, Hauser said, would suggest that the follower ant actually knew the leader was more knowledgeable and not merely following an instinctive routine itself.

The controversy went on, and for a good reason. The occurrence of teaching in ants, if proven to be true, indicates that teaching can evolve in animals with tiny brains. It is probably the value of information in social animals that determines when teaching will evolve, rather than the constraints of brain size.

Bennett Galef Jr., a psychologist who studies animal behaviour and social learning at McMaster University in Canada, maintained that ants were unlikely to have a “theory of mind” — meaning that leaders and followers may well have been following instinctive routines that were not based on an understanding of what was happening in another ant’s brain. He warned that scientists may be barking up the wrong tree when they look not only for examples of humanlike behaviour among other animals but humanlike thinking that underlies such behaviour. Animals may behave in ways similar to humans without a similar cognitive system, he said, so the behaviour is not necessarily a good guide into how humans came to think the way they do.

### Questions 1-5

Look at the following statements (Questions 1-5) and the list of people in the box below.

Match each statement with the correct person, **A**, **B**, **C** or **D**.

Write the correct letter, **A**, **B**, **C** or **D**, in boxes 1-5 on your answer sheet.

**NB** You may use any letter more than once.

- 1 Animals could use objects to locate food.
- 2 Ants show two-way, interactive teaching behaviours.
- 3 It is risky to say ants can teach other ants like human beings do.
- 4 Ant leadership makes finding food faster.
- 5 Communication between ants is not entirely teaching.

#### List of People

- A** Nigel Franks
- B** Marc Hauser
- C** Tim Caro
- D** Bennett Galef Jr.

## Questions 6-9

Choose **FOUR** letters, **A-H**.

Write your answers in boxes 6-9 on your answer sheet.

Which **FOUR** of the following behaviours of animals are mentioned in the passage?

- A touch each other with antenna
- B alert others when there is danger
- C escape from predators
- D protect the young
- E hunt food for the young
- F fight with each other
- G use tools like twigs
- H feed on a variety of foods

## Questions 10-13

Do the following statements agree with the claims of the writer in Reading Passage 1?

In boxes 10-13 on your answer sheet, write

- YES** if the statement agrees with the claims of the writer  
**NO** if the statement contradicts the claims of the writer  
**NOT GIVEN** if it is impossible to say what the writer thinks about this

- 10 Ants' tandem running involves only one-way communication.
- 11 Franks's theory got many supporters immediately after publicity.
- 12 Ants' teaching behaviour is the same as that of human.
- 13 Cheetah share hunting gains to younger ones.

## READING PASSAGE 2

You should spend about 20 minutes on Questions 14-26, which are based on Reading Passage 2 below.

### The Development of Plastics

When rubber was first commercially produced in Europe during the nineteenth century, it rapidly became a very important commodity, particularly in the fields of transportation and electricity. However, during the twentieth century a number of new synthetic materials, called plastics, superseded natural rubber in all but a few applications.

Rubber is a polymer — a compound containing large molecules that are formed by the bonding of many smaller, simpler units, repeated over and over again. The same bonding principle — *polymerisation* — underlies the creation of a huge range of plastics by the chemical industry.

The first plastic was developed as a result of a competition in the USA. In the 1860s, \$10,000 was offered to anybody who could replace ivory — supplies of which were declining — with something equally good as a material for making billiard balls. The prize was won by John Wesley Hyatt with a material called celluloid. *Celluloid* was made by dissolving cellulose, a carbohydrate derived from plants, in a solution of camphor dissolved in ethanol. This new material rapidly found uses in the manufacture of products such as knife handles, detachable collars and cuffs, spectacle frames and photographic film. Without celluloid, the film industry could never have got off the ground at the end of the 19th century.

Celluloid can be repeatedly softened and reshaped by heat, and is known as a thermoplastic. In 1907 Leo Baekeland, a Belgian chemist working in the USA, invented a different kind of plastic by causing phenol and formaldehyde to react together. Baekeland called the material Bakelite, and it was the first of the thermosets — plastics that can be cast and moulded while hot, but cannot be softened by heat and reshaped once they have set. Bakelite was a good insulator, and was resistant to water, acids and moderate heat. With these properties it was soon being used in the manufacture of switches, household items, such as knife handles, and electrical components for cars.

Soon chemists began looking for other small molecules that could be strung

together to make polymers. In the 1930s, British chemists discovered that the gas ethylene would polymerise under heat and pressure to form a thermoplastic they called *polythene*. *Polypropylene* followed in the 1950s. Both were used to make bottles, pipes and plastic bags. A small change in the starting material — replacing a hydrogen atom in ethylene with a chlorine atom — produced PVC (polyvinyl chloride), a hard, fireproof plastic suitable for drains and gutters. And by adding certain chemicals, a soft form of PVC could be produced, suitable as a substitute for rubber in items such as waterproof clothing. A closely related plastic was *Teflon*, or *PTFE* (polytetrafluoroethylene). This had a very low coefficient of friction, making it ideal for bearings, rollers, and non-stick frying pans. *Polystyrene*, developed during the 1930s in Germany, was a clear, glass-like material, used in food containers, domestic appliances and toys. Expanded polystyrene — a white, rigid foam — was widely used in packaging and insulation. *Polyurethanes*, also developed in Germany, found uses as adhesives, coatings, and — in the form of rigid foams — as insulation materials. They are all produced from chemicals derived from crude oil, which contains exactly the same elements — carbon and hydrogen — as many plastics.

The first of the man-made fibres, nylon, was also created in the 1930s. Its inventor was a chemist called Wallace Carothers, who worked for the Du Pont company in the USA. He found that under the right conditions, two chemicals — hexamethylenediamine and adipic acid — would form a polymer that could be pumped out through holes and then stretched to form long glossy threads that could be woven like silk. Its first use was to make parachutes for the US armed forces in World War II. In the post-war years nylon completely replaced silk in the manufacture of stockings. Subsequently many other synthetic fibres joined nylon, including Orlon, Acrilan and Terylene. Today most garments are made of a blend of natural fibres, such as cotton and wool, and man-made fibres that make fabrics easier to look after.

The great strength of plastic is its indestructibility. However, this quality is also something of a drawback: beaches all over the world, even on the remotest islands, are littered with plastic bottles that nothing can destroy. Nor is it very easy to recycle plastics, as different types of plastic are often used in the same items and call for different treatments. Plastics can be made biodegradable by incorporating into their structure a material such as starch, which is attacked by bacteria and causes the plastic to fall apart. Other materials can be incorporated that gradually decay in sunlight — although bottles made of such materials have to be stored in the dark, to ensure that they do not disintegrate before they have been used.



## Questions 14-20

Complete the table below.

Choose **NO MORE THAN THREE WORDS** from the passage for each answer.

Write your answers in boxes 14-20 on your answer sheet.

Name of plastic	Date of invention	Original region	Property	Common use
Celluloid	1860s	US		14 _____
15 _____	1907	US	can be cast and moulded but cannot be softened by heat	16 _____, household items and car parts
Polythene	1930s	17 _____		bottles
Rigid PVC			18 _____	
Polystyrene	1930s	Germany	19 _____	food container
Polyurethanes		Germany	20 _____ foams	adhesives, coatings and insulation

## Questions 21-26

Do the following statements agree with the information given in Reading Passage 2?

In boxes 21-26 on your answer sheet, write

**TRUE** if the statement agrees with the information

**FALSE** if the statement contradicts the information

**NOT GIVEN** if there is no information on this

- 21 The chemical structure of plastic is very different from that of rubber.
- 22 John Wesley was a famous chemist.
- 23 Celluloid and Bakelite react to heat in the same way.
- 24 The mix of different varieties of plastic can make the recycling more difficult.
- 25 Adding starch into plastic can make plastic more durable.
- 26 Some plastic containers have to be preserved in special conditions.

## READING PASSAGE 3

*You should spend about 20 minutes on Questions 27-40, which are based on Reading Passage 3 below.*

### Global Warming in New Zealand

For many environmentalists, the world seems to be getting warmer. As the nearest country of South Polar Region, New Zealand has maintained an upward trend in its average temperature in the past few years. However, the temperature in New Zealand will go up 4°C in the next century while the polar region will go up more than 6°C. The different pictures of temperature stem from its surrounding ocean which acts like the air conditioner. Thus New Zealand is comparatively fortunate.

Scientifically speaking, this temperature phenomenon in New Zealand originated from what researchers call "SAM" (Southern Annular Mode), which refers to the wind belt that circles the Southern Oceans including New Zealand and Antarctica. Yet recent work has revealed that changes in SAM in New Zealand have resulted in a weakening of moisture during the summer, and more rainfall in other seasons. A bigger problem may turn out to be heavier droughts for agricultural activities because of more water loss from soil, resulting in poorer harvest before winter when the rainfall arrive too late to rescue.

Among all the calamities posed by drought, moisture deficit ranks the first. Moisture deficit is the gap between the water plants need during the growing season and the water the earth can offer. Measures of moisture deficit were at their highest since the 1970s in New Zealand. Meanwhile, ecological analyses clearly show moisture deficit is imposed at different growth stage of crops. If moisture deficit occurs around a crucial growth stage, it will cause about 22% reduction in grain yield as opposed to moisture deficit at vegetative phase.

Global warming is not only affecting agriculture production. When scientists say the country's snow pack and glaciers are melting at an alarming rate due to global warming, the climate is putting another strain on the local places. For example, when the development of global warming is accompanied by the falling snow line, the local skiing industry comes into a crisis. The snow line may move up as the temperature goes up, and then the snow at the bottom will melt earlier. Fortunately, it is going to be favourable for the local skiing industry to tide over tough periods since the quantities of snowfall in some areas are more likely to increase.

What is the reaction of glacier region? The climate change can be reflected in the glacier region in southern New Zealand or land covered by ice and snow. The

reaction of a glacier to a climatic change involves a complex chain of processes. Over time periods of years to several decades, cumulative changes in mass balance cause volume and thickness changes, which will affect the flow of ice via altered internal deformation and basal sliding. This dynamic reaction finally leads to glacier length changes, the advance or retreat of glacier tongues. Undoubtedly, glacier mass balance is a more direct signal of annual atmospheric conditions.

The latest research result of National Institute of Water and Atmospheric (NIWA) Research shows that glaciers line keeps moving up because of the impacts of global warming. Further losses of ice can be reflected in Mt. Cook Region. By 1996, a 14 km long sector of the glacier had melted down forming a melt lake (Hooker Lake) with a volume. Melting of the glacier front at a rate of 40 m/yr will cause the glacier to retreat at a rather uniform rate. Therefore, the lake will continue to grow until it reaches the glacier bed.

A direct result of the melting glaciers is the change of high tides that serves the main factor for sea level rise. The trend of sea level rise will bring a threat to the groundwater system for its hyper-saline groundwater and then pose a possibility to decrease the agricultural production. Many experts believe that the best way to counter this trend is to give a longer-term view of sea level change in New Zealand. Indeed, the coastal boundaries need to be upgraded and redefined.

There is no doubt that global warming has affected New Zealand in many aspects. The emphasis on the global warming should be based on the joints efforts of local people and experts who conquer the tough period. For instance, farmers are taking a long term, multi-generational approach to adjust the breeds and species according to the temperature. Agriculturists also find ways to tackle the problems that may bring to the soil. In broad terms, going forward, the systemic resilience that's been going on a long time in the ecosystem will continue.

How about animals' reaction? Experts have surprisingly realised that animals have unconventional adaptation to global warming. A study has looked at sea turtles on a few northern beaches in New Zealand and it is very interesting to find that sea turtles can become male or female according to the temperature. Further researches will try to find out how rising temperatures would affect the ratio of sex reversal in their growth. Clearly, the temperature of the nest plays a vital role in the sexes of the baby turtles.

Tackling the problems of global warming is never easy in New Zealand, because records show the slow process of global warming may have a different impact on various regions. For New Zealand, the emission of carbon dioxide only accounts for 0.5% of the world's total, which has met the governmental standard. However, New Zealand's effort counts only a tip of the iceberg. So far, global warming has been a world issue that still hangs in an ambiguous future.

## Questions 27-32

Choose the correct letter, **A**, **B**, **C** or **D**.

Write the correct letter in boxes 27-32 on your answer sheet.

- 27 What is the main idea of the first paragraph?
- A The temperature in the polar region will increase less than that in New Zealand in the next century.
  - B The weather and climate of New Zealand is very important to its people because of its close location to the polar region.
  - C The air condition in New Zealand will maintain a high quality because of the ocean.
  - D The temperature of New Zealand will increase less than that of other regions in the next 100 years because it is surrounded by sea.
- 28 What is one effect of the wind belt that circles the Southern Oceans?
- A New Zealand will have more moisture in winds in summer.
  - B New Zealand needs to face droughts more often in hotter months in a year.
  - C Soil water will increase as a result of weakening moisture in the winds.
  - D Agricultural production will be reduced as a result of more rainfall in other seasons.
- 29 What does “moisture deficit” mean to the grain and crops?
- A The growing condition will be very tough for crops.
  - B The growing season of some plants can hardly be determined.
  - C There will be a huge gap between the water plants needed and the water the earth can offer.
  - D The soil of grain and crops in New Zealand reached its lowest production since 1970s.

- 30** What changes will happen to skiing industry due to the global warming phenomenon?
- A** The skiing station may lower the altitude of skiing.
  - B** Part of the skiing station needs to move to the north.
  - C** The snowfall may increase in part of the skiing station.
  - D** The local skiing station may likely to make a profit because of the snowfall increase.
- 31** Cumulative changes over a long period of time in mass balance will lead to
- A** alterations in the volume and thickness of glaciers.
  - B** faster changes in internal deformation and basal sliding.
  - C** larger length of glaciers.
  - D** retreat of glacier tongues as a result of change in annual atmospheric conditions.
- 32** Why does the writer mention NIWA in the sixth paragraph?
- A** To use a particular example to explain the effects brought by glacier melting.
  - B** To emphasize the severance of the further loss of ice in Mt. Cook Region.
  - C** To alarm the reader of melting speed of glaciers at a uniform rate.
  - D** To note the lake in the region will disappear when it reach the glacier bed.

## Questions 33-35

Complete the summary below.

Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

Write your answers in boxes 33-35 on your answer sheet.

Research data shows that sea level has a closely relation with the change of climate. The major reason for the increase in sea level is connected with 33 \_\_\_\_\_. The increase in sea level is also said to have a threat to the underground water system, the destruction of which caused by rise of sea level will lead to a high probability of reduction in 34 \_\_\_\_\_. In the long run, New Zealanders may have to improve the 35 \_\_\_\_\_ if they want to diminish the effect change in sea levels.

### Questions 36-40

Do the following statements agree with the claims of the writer in Reading Passage 3?

*In boxes 36-40 on your answer sheet, write*

- YES**                      *if the statement agrees with the claims of the writer*  
**NO**                        *if the statement contradicts the claims of the writer*  
**NOT GIVEN**        *if it is impossible to say what the writer thinks about this*

- 36** Farmers are less responsive to climate change than agriculturists.  
**37** Agricultural sector is too conservative and resistant to deal with climate change.  
**38** Turtle is vulnerable to climate change.  
**39** The global warming is going slowly, and it may have different effects on different areas in New Zealand.  
**40** New Zealand must cut carbon dioxide emission if they want to solve the problem of global warming.



# TEST 6

## READING PASSAGE 1

You should spend about 20 minutes on **Questions 1-13**, which are based on Reading Passage 1 below.

### Computer Games for Preschoolers: *Nintendo's* Research and Design Process

Designing computer games for young children is a daunting task for game producers, who, for a long time, have concentrated on more “hard core” game fans. This article chronicles the design process and research involved in creating *Nintendo DS* for preschool gamers.

After speaking with our producers who have a keen interest in designing for the DS, we finally agreed on three key goals for our project. First, to understand the range of physical and cognitive abilities of preschoolers in the context of handheld system game play; second, to understand how preschool gamers interact with the DS, specifically how they control the different forms of play and game mechanics offered by the games presently on the market for this platform; third, to understand the expectations of preschoolers' parents concerning the handheld systems as well as the purchase and play contexts within which game play occurs. The team of the research decided that in-home ethnographies with preschoolers and their families would yield comprehensive database with which to give our producers more information and insights, so we start by conducting 26 in-home ethnographies in three markets across the United States: an East coast urban/suburban area, a West coast urban/suburban area, and a Midwest suburban/rural area.

The subjects in this study included 15 girls and 11 boys ranging from 3 years and 3 months old to 5 years and 11 months old. Also, because previous research had shown the effects of older siblings on game play (demonstrated, for example, by more advanced motor coordination when using a computer mouse), households were employed to have a combination of preschoolers with and without elder peers. In order to understand both “experienced” and “new” preschool users of the platform, we divided the sample so that 13 families owned at least one *Nintendo DS* and the others did not. For those households that did not own a DS, one was brought to the interview for the kid to play. This allowed us to see both the instinctive and intuitive movements of the new players (and of the more experienced players when playing new games), as well as the learned movements of the more experienced players. Each of those interviews took about 60 to 120 minutes and included the preschooler, at least one parent, and often siblings and another caregiver.

Three kinds of information were collected after each interview. From any older siblings and the

parents that were available, we gathered data about: the buying decisions surrounding game systems in the household, the family's typical game play patterns, levels of parental moderation with regard to computer gaming, and the most favorite games played by family members. We could also understand the ideology of gaming in these homes because of these in-home interviews: what types of spaces were used for game play, how the systems were installed, where the handheld play occurred in the house (as well as on-the-go play), and the number and type of games and game systems owned. The most important is, we gathered the game-playing information for every single kid.

Before carrying out the interviews, the research team had closely discussed with the in-house game producers to create a list of game mechanics and problems tied to preschoolers' motor and cognitive capabilities that were critical for them to understand prior to writing the games. These ranged from general dexterity issues related to game controllers to the effectiveness of in-game instructions to specific mechanics in current games that the producers were interested in implementing for future preschool titles. During the interviews, the moderator gave specific guidance to the preschooler through a series of games, so that he or she could observe the interaction and probe both the preschooler and his or her parents on feelings, attitudes, and frustrations that arose in the different circumstances.

If the subject in the experiment had previous exposure to the DS system, he or she was first asked to play his or her favorite game on that machine. This gave the researchers information about current level of gaming skill related to the complexity of the chosen one, allowing them to see the child playing a game with mechanics he or she was already familiar with. Across the 26 preschoolers, the *Nintendo DS* selections scope were very broad, including *New Super Mario Bros*, *Sonic Rush*, *Nintendogs*, and *Tony Hawk's Proving Ground*. The interviewer observed the child play, noting preferences for game mechanics and motor interactions with the device as well as the complexity level each game mechanic was for the tested subject. The researchers asked all of the preschoolers to play with a specific game in consultation with our producers, *The Little Mermaid: Ariel's Undersea Adventure*. The game was chosen for two major reasons. First, it was one of the few games on the market with characters that appeal to this young age group. Second, it incorporated a large variety of mechanics that highlighted the uniqueness of the DS platform, including using the microphone for blowing or singing.

The findings from this initial experiment were extensive. After reviewing the outcomes and discussing the implications for the game design with our internal game production team, we then outlined the designing needs and presented the findings to a firm specialising in game design. We worked closely with those experts to set the game design for the two preschool-targeted DS games under development on what we had gathered.

As the two DS games went into the development process, a formative research course of action was set up. Whenever we developed new game mechanics, we brought preschoolers into our in-house utility lab to test the mechanics and to evaluate both their simplicity, and whether they were engaging. We tested either alpha or beta versions of different elements of the game, in addition to looking at overarching game structure. Once a full version of the DS game was ready, we went back into the field test with a dozen preschoolers and their parents to make sure that each of the game elements worked for the children, and that the overall objective of the game was understandable and the process was enjoyable for players. We also collected parents' feedback on whether they thought the game is appropriate, engaging, and worth the purchase.

## Questions 1-5

Complete the sentences below.

Choose **ONE WORD ONLY** from the passage for each answer.

Write your answers in boxes 1-5 on your answer sheet.

### Exploratory Research Project

#### Main Objectives:

Determine the relevant 1 \_\_\_\_\_ in the context

Observe how preschoolers manage playing

Investigate attitudes of 2 \_\_\_\_\_ towards games

#### Subjects:

26 children from different US 3 \_\_\_\_\_

Age range: 3 years and 3 months to 5 years and 11 months

Some children have older 4 \_\_\_\_\_

Equal number of new and 5 \_\_\_\_\_ players

Some households have *Nintendo* DS and some don't

#### Length of Interview:

1-2 hours

## Questions 6-9

Do the following statements agree with the information given in Reading Passage 1?

*In boxes 6-9 on your answer sheet, write*

**TRUE**                      *if the statement agrees with the information*

**FALSE**                    *if the statement contradicts the information*

**NOT GIVEN**          *if there is no information on this*

- 6 One area of research is how far mothers and fathers controlled children's playing after school.
- 7 The researchers are allowed a free access to the subjects' houses.
- 8 The researchers regarded *The Little Mermaid: Ariel's Undersea Adventure* as likely appeal to preschoolers.
- 9 *The Little Mermaid: Ariel's Undersea Adventure* is operated entirely by hand controls.

## Questions 10-13

Complete the flow-chart below.

Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

Write your answers in boxes 10-13 on your answer sheet.

### Using the Results of the Study

Presentation of design requirements to a specialist 10 \_\_\_\_\_



Testing the mechanics of two new games in the *Nintendo* lab

(assess 11 \_\_\_\_\_ and interest)



A 12 \_\_\_\_\_ of the games trailed by twelve children



Collection of 13 \_\_\_\_\_ from parents

## READING PASSAGE 2

*You should spend about 20 minutes on Questions 14-26, which are based on Reading Passage 2 below.*

### **The History of Pencil**

The beginning of the story of pencils started with a lightning. Graphite, the main material for producing pencil, was discovered in 1564 in Borrowdale in England when a lightning struck a local tree during a thunder. Local people found out that the black substance spotted at the root of the unlucky tree was different from burning ash of wood. It was soft, thus left marks everywhere. Chemistry was barely out of its infancy at the time, so people mistook it for lead, equally black but much heavier. It was soon put to use by locals in marking their sheep for ownership and calculation.

Britain turns out to be the major country where mines of graphite can be detected and developed. Even so, the first pencil was invented elsewhere. As graphite is soft, it requires some form of encasement. In Italy, graphite sticks were initially wrapped in string or sheepskin for stability, becoming perhaps the very first pencil in the world. Then around 1560, an Italian couple made what are likely the first blueprints for the modern, wood-encased carpentry pencil. Their version was a flat, oval, more compact type of pencil. Their concept involved the hollowing out of a stick of juniper wood. Shortly thereafter in 1662, a superior technique was discovered by German people: two wooden halves were carved, a graphite stick inserted, and the halves then glued together – essentially the same method in use to this day. The news of the usefulness of these early pencils spread far and wide, attracting the attention of artists all over the known world.

Although graphite core in pencils is still referred to as lead, modern pencils do not contain lead as the “lead” of the pencil is actually a mix of finely ground graphite and clay powders. This mixture is important because the amount of clay content added to the graphite depends on the intended pencil hardness, and the amount of time spent on grinding the mixture determines the quality of the lead. The more clay you put in, the higher hardness the core has. Many pencils across the world, and almost all in Europe, are graded on the European system. This system of naming used B for black and H for hard; a pencil’s grade was described by a

sequence or successive Hs or Bs such as BB and BBB for successively softer leads, and HH and HHH for successively harder ones. Then the standard writing pencil is graded HB.

In England, pencils continue to be made from whole sawn graphite. But with the mass production of pencils, they are getting drastically more popular in many countries with each passing decade. As demands rise, appetite for graphite soars. According to the United States Geological Survey (USGS), world production of natural graphite in 2012 was 1,100,000 tonnes, of which the following major exporters are: China, India, Brazil, North Korea and Canada. However, much in contrast with its intellectual application in producing pencils, graphite was also widely used in the military. During the reign of Elizabeth I, Borrowdale graphite was used as a refractory material to line moulds for cannonballs, resulting in rounder, smoother balls that could be fired farther, contributing to the strength of the English navy. This particular deposit of graphite was extremely pure and soft, and could easily be broken into sticks. Because of its military importance, this unique mine and its production were strictly controlled by the Crown.

That the United States did not use pencils in the outer space till they spent \$1000 to make a pencil to use in zero gravity conditions is in fact a fiction. It is widely known that astronauts in Russia used grease pencils, which don't have breakage problems. But it is also a fact that their counterparts in the United States used pencils in the outer space before real zero gravity pencil was invented. They preferred mechanical pencils, which produced fine lines, much clearer than the smudgy lines left by the grease pencils that Russians favoured. But the lead tips of these mechanical pencils broke often. That bit of graphite floating around the space capsule could get into someone's eye, or even find its way into machinery or electronics, causing an electrical short or other problems. But despite the fact that the Americans did invent zero gravity pencils later, they stuck to mechanical pencils for many years.

Against the backcloth of a digitalized world, the prospect of pencils seems bleak. In reality, it does not. The application of pencils has by now become so widespread that they can be seen everywhere, such as classrooms, meeting rooms and art rooms, etc. A spectrum of users are likely to continue to use it into the future: students to do math works, artists to draw on sketch pads, waiters or waitresses to mark on order boards, make-up professionals to apply to faces, and architects to produce blue prints. The possibilities seem limitless.

**Questions 14-20**

*Complete the sentences below.*

*Choose **ONE WORD ONLY** from the passage for each answer.*

*Write your answers in boxes 14-20 on your answer sheet.*

Graphite was found under a **14** \_\_\_\_\_ in Borrowdale, it was dirty to use because it was **15** \_\_\_\_\_.

Ancient people used graphite to sign **16** \_\_\_\_\_.

People found graphite **17** \_\_\_\_\_ in Britain.

The first pencil was graphite wrapped in **18** \_\_\_\_\_ or animal skin.

Since graphite was too smooth, **19** \_\_\_\_\_ was added to make it harder.

Russian astronauts preferred **20** \_\_\_\_\_ pencils to write in the outer space.



## Questions 21-26

Do the following statements agree with the information given in Reading Passage 2?

In boxes 21-26 on your answer sheet, write

**TRUE** if the statement agrees with the information

**FALSE** if the statement contradicts the information

**NOT GIVEN** if there is no information on this

- 21 Italy is probably the first country of the whole world to make pencils.
- 22 Germany used various kinds of wood to make pencils.
- 23 Graphite makes a pencil harder and sharper.
- 24 In Britain, pencils are not produced any more.
- 25 American astronauts did not use pencil in outer space.
- 26 Pencils are unlikely to be used in the future.

### READING PASSAGE 3

*You should spend about 20 minutes on Questions 27-40, which are based on Reading Passage 3 below.*

## Motivating Drives

Scientists have been researching the way to get employees motivated for many years. This research is a relational study which builds the fundamental and comprehensive model for study. This is especially true when the business goal is to turn unmotivated teams into productive ones. But their researches have limitations. It is like studying the movements of car without taking out the engine.

Motivation is what drives people to succeed and plays a vital role in enhancing an organisational development. It is important to study the motivation of employees because it is related to the emotion and behaviour of employees. Recent studies show there are four drives for motivation. They are the drive to acquire, the drive to bond, the drive to comprehend and the drive to defend.

### **The Drive to Acquire**

The drive to acquire must be met to optimise the acquire aspect as well as the achievement element. Thus the way that outstanding performance is recognised, the type of perks that is provided to polish the career path. But sometimes a written letter of appreciation generates more motivation than a thousand dollar check, which can serve as the invisible power to boost business engagement. Successful organisations and leaders not only need to focus on the optimisation of physical reward but also on moving other levers within the organisation that can drive motivation.

### **The Drive to Bond**

The drive to bond is also key to driving motivation. There are many kinds of bonds between people, like friendship, family. In company, employees also want to be an essential part of company. They want to belong to the company. Employees will be motivated if they find personal belonging to the company. In the meantime, the most commitment will be achieved by the employee on condition that the force of motivation within the employee affects the direction, intensity and persistence of decision and behaviour in company.

### **The Drive to Comprehend**

The drive to comprehend motivates many employees to higher performance. For years, it has been known that setting stretch goals can greatly impact performance. Organisations need to ensure that the various job roles provide employees with simulation that challenges them or allow them to grow. Employees don't want to do meaningless things or monotonous job. If the job didn't provide them with personal meaning and fulfillment, they will leave the company.

### **The Drive to Defend**

The drive to defend is often the hardest lever to pull. This drive manifests itself as a quest to create and promote justice, fairness, and the ability to express ourselves freely. The organisational lever for this basic human motivator is resource allocation. This drive is also met through an employee feeling connection to a company. If their companies are merged with another, they will show worries.

Two studies have been done to find the relations between the four drives and motivation. The article based on two studies was finally published in Harvard Business Review. Most authors' arguments have laid emphasis on four-drive theory and actual investigations. Using the results of the surveys which executed with employees from Fortune 500 companies and other two global businesses (P company and H company), the article mentions about how independent drives influence employees' behaviour and how organisational levers boost employee motivation.

The studies show that the drive to bond is most related to fulfilling commitment, while the drive to comprehend is most related to how much effort employees spend on works. The drive to acquire can be satisfied by a rewarding system which ties rewards to performance, and gives the best people opportunities for advancement. For drive to defend, a study on the merging of P company and H company shows that employees in former company show an unusual cooperating attitude.

The key to successfully motivate employees is to meet all drives. Each of these drives is important if we are to understand employee motivation. These four drives, while not necessarily the only human drives, are the ones that are central to the unified understanding of modern human life.

## Questions 27-31

Choose the correct letter, **A**, **B**, **C** or **D**.

Write the correct letter in boxes 27-31 on your answer sheet.

- 27** According to the passage, what are we told about the study of motivation?
- A** The theory of motivating employees is starting to catch attention in organisations in recent years.
  - B** It is very important for managers to know how to motivate their subordinates because it is related to the salary of employees.
  - C** Researchers have tended to be too theoretical to their study.
  - D** The goal of employee motivation is to increase the profit of organisations.
- 28** What can be inferred from the passage about the study of people's drives?
- A** Satisfying employees' drives can positively lead to the change of behaviour.
  - B** Satisfying employees' drives will negatively affect their emotions.
  - C** Satisfying employees' drives can increase companies' productions.
  - D** Satisfying employees' drives will result in employees' outstanding performance.
- 29** According to paragraph three, in order to optimise employees' performance, \_\_\_\_\_ are needed.
- A** drive to acquire and achievement element
  - B** outstanding performance and recognition
  - C** career fulfillment and a thousand dollar check
  - D** financial incentive and recognition

- 30 According to paragraph five, how does “the drive to comprehend” help employees perform better?
- A It can help employees better understand the development of their organisations.
  - B It can help employees feel their task is meaningful to their companies.
  - C It can help employees set higher goals.
  - D It can provide employees with repetitive tasks.
- 31 According to paragraph six, which of the following is true about “drive to defend”?
- A Organisational resource is the most difficult to allocate.
  - B It is more difficult to implement than the drive to comprehend.
  - C Employees think it is very important to voice their own opinions.
  - D Employees think it is very important to connect with a merged corporation.

### **Questions 32-34**

Choose **THREE** letters, **A-F**.

Write the correct letters in boxes 32-34 on your answer sheet.

Which **THREE** of the following statements are true of the study of drives?

- A** Employees will be motivated if they feel belonged to the company.
- B** If employees get an opportunity of training and development program, their motivation will be enhanced.
- C** If employees' working goals are complied with organisational objectives, their motivation will be reinforced.
- D** If employees' motivation is very low, companies should find a way to increase their salary as their first priority.
- E** If employees find their work lacking challenging, they will leave the company.
- F** Employees will worry if their company is sold.

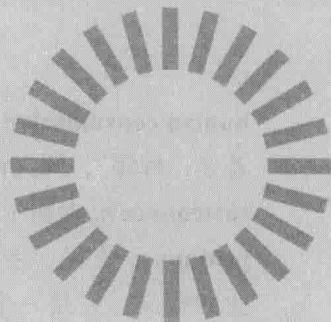
## Questions 35-40

Do the following statements agree with the claims of the writer in Reading Passage 3?

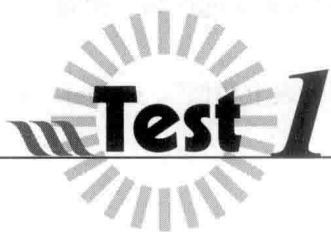
*In boxes 35-40 on your answer sheet, write*

- |                  |   |
|------------------|---|
| <b>YES</b>       | <i>if the statement agrees with the claims of the writer</i>        |
| <b>NO</b>        | <i>if the statement contradicts the claims of the writer</i>        |
| <b>NOT GIVEN</b> | <i>if it is impossible to say what the writer thinks about this</i> |

- 35 Increasing pay can lead to the high work motivation.
- 36 Local companies benefit more from global companies through the study.
- 37 Employees achieve the most commitment if their drive to comprehend is met.
- 38 The employees in former company presented unusual attitude toward the merging of two companies.
- 39 The two studies are done to analyse the relationship between the natural drives and the attitude of employees.
- 40 Rewarding system cause the company to lose profit.



## 真题解析



### Reading Passage 1. The Impact of the Potato

#### 词汇详解

**region** *n.* 地区；范围；部位（阅读中常出现的“critical region”意为“临界区”；“coding region”意为“编码区”。）

**originate** *v.* 起源（“originate in...”表示“起源于……”。）

**chronicler** *n.* 记录者；编年史家

**misuse** *v.* 滥用，误用；虐待（“滥用职权”的英文表达为“misuse of authority”；表示“滥用”的近义词还有：abuse, strain。）

**dehydrate** *v.* 脱水

**insurance against** 以防……而投保险

**encounter** *v.* 遇到，遭遇（“与……邂逅”的英文表达为“encounter with”；近义词组 fall in with, lit on, bring up against 等可用于作文。）

**represent** *v.* 表现，表示；描绘；代表，象征；说明，阐明（present 有“提出，呈现”的意思，前缀“re”则表示“反复，重复”。同义词：stand for；相关词组“represent to”意为“向……陈述、指出”。）

**treasure** *n.* 金银财宝，财富 *v.* 重视（表示“财富”的词还有：wealth, estate, money, property, fortune；表示“珍视”的词还有：cherish, enshrine。听力经常考财富类话题，比如什么东西可以当作钱币或者可以物物交换等。）



**human consumption** 人类消费 (consumption 的动词形式 consume 意为“消耗, 消费, 使……着迷, 挥霍”, 同义词: deplete。)

**sustenance** *n.* 食物; 生计; 支持 (其同义词 nutrition 在听力中经常出现。)

**peasant** *n.* 农民, 乡下人 (其同义词 farmer 从词义上说是以 farm 为词根, 强调的是职业的含义, 它是一个职业的概念, 指的是“经营农作物、农业的人”, 是一个中性词。peasant 一词源于古法语, 是由拉丁语 pagus 派生而来, 该拉丁语词意为“异教徒; 未开化者; 堕落”, 是一个贬义词, 比起 farmer 更强调身份。这两种不同译法反映了农民这个概念的双重意义: 一是身份的, 二是职业的。)

**misshapen** *adj.* 畸形的; 丑恶的; 怪异的 (动词形式为 misshape。同义词: ugly 指“相貌丑陋”; nasty 指“下流”, 强调心理。)

**resemblance** *n.* 相似之处, 相似物 (resemblance 尤指“在外形或者外表上相似”。similarity 强调“相似的性质或者状态”。)

**staple** *n.* 主要产品; 主食 *adj.* 主要的, 基本的

**shortage** *n.* 短缺, 不足

**pamphlet** *n.* 小册子 (通常指有关时事或政治见解的小册子。)

**maraud** *v.* 抢劫, 掠夺 (同义词有: spoliage, plunder。“marauding punks”意为“抢劫的混混”。)

**widespread** *adj.* 普遍的, 广泛的, 分布广的 (阅读中常用“widespread application”来表示“应用广泛”。)

**blossom** *n.* 花 (特指果树的花或一颗树上所开的全部花朵, 与 flower 同义。同义词还有 bloom, 尤指供观赏的花。)

**protection** *n.* 保护, 防卫 (同义词中, conservation 指“全面保护”; preservation 强调“细节保护”。)

**famine** *n.* 饥荒; 极度缺乏 (famine 强调程度非常严重; 相对来说, poverty 是程度一般的。饥荒的时候比贫穷的时候更难找到东西吃, 饿死的几率更高。即使你富裕, 也可能是“贫穷”的, 因为有钱也不一定能买到吃的东西。同样是缺乏, 如果你一天没有东西吃, 可以说是缺乏食物, 如果你三天没有东西吃, 那就可以说是极度缺乏食物。)

**reverse** *adj.* 相反的 *n.* 背面 (相关词组有: in reverse 相反, 向相反方向, 倒退, 逆行, 逆转; reverse engineering 逆向工程; reverse osmosis 反渗透, 逆向渗透。)

**assume** *v.* 假定, 假设 (阅读中常见的相关词组有: assumed liability 承担债务, 承付债务, 承担责任; assumed value 假定值, 假设值; assumed accident 假想事故。)

**sneak** *v.* 潜行 (sneak into 表示“偷偷摸摸地进入”。)

**entirely** *adv.* 完全地, 彻底地 (词根 entire 表示“全部的, 整个的”。)

**supplement** *v.* 增加或补充 (某事物) *n.* 补充; 附加费

**populace** *n.* 民众, 平民, 百姓

**persuade** *v.* 说服 (从句中的“persuaded that”通常表示“确信”。同义词有: induce,

convince。)

**reform** *n.* 改革 *v.* 改进, 改革 (reform movement 改革运动; educational reform 教育改革。)

## 题目详解

### Questions 1-5

#### 解答

1. 利用顺序原则和专有名词“Chuño”定位于原文第2段第1句“Early Spanish chroniclers who misused the Indian word batata (sweet potato) as the name for the potato...”, 从上述内容可以很容易看出西班牙人一开始叫土豆“batata”, 而从第2句“...dehydrating and mashing potatoes into a substance called Chuño”可以看出, Chuño 是印加人将土豆脱水捣碎之后的物质, 并不是早期西班牙人对土豆的称呼, 因此题目与原文信息不符, 所以正确答案为 FALSE。
2. 利用顺序原则和地名“Peru”定位于原文第3段第1句“The Spanish conquistadors first encountered the potato when they arrived in Peru in 1532 in search of gold”, 从上述内容可以看出西班牙人来秘鲁的目的是为了 gold, 而不是 potato, 与题目意思直接相反, 所以正确答案为 FALSE。
3. 利用顺序原则继续看第3段末句“After the arrival of the potato in Spain in 1570, a few Spanish farmers began to cultivate them on a small scale, mostly as food for livestock”, 可以看出来这句话并没有提到任何有关“nutrients”和其他“vegetables”的信息, 而后文第8段中虽然提到了“vegetables”和“nutritionally”两个词, 但并没有比较“其他蔬菜”和“土豆”的营养成分, 也没有提到西班牙人。因此本题在原文中没有相关内容对应, 正确答案为 NOT GIVEN。
4. 利用顺序原则和细节信息“ugly”定位于原文第4段第4句“Even peasants refused to eat from a plant that produced ugly, misshapen tubers and that had come from a heathen civilisation.” 根据上下文可知“plant that produced ugly, misshapen tubers”指的就是“potatoes”, 因此题目与原文信息一致, 所以正确答案是 TRUE。
5. 利用顺序原则和地名“UK”定位于原文第5段第3句“Potatoes did not become a staple until, during the food shortages associated with the Revolutionary Wars, the English government...”。原文中的“become a staple (成为主食、主要农产品)”和题目中的“popularity (普及)”其实是同义替换, 指的是土豆成为主食这件事, 剩下的细节信息“food shortages”和“war”等均与原文信息一致, 所以正确答案是 TRUE。

## Questions 6-13

## 解答

6. 利用顺序原则和地名“France”定位于原文第6段,再根据题目细节信息“button hole”定位到本段末句“Louis XVI began to sport a potato flower in his buttonhole”,其中“sport”在该句子中作动词,有“炫耀地穿戴(某物)”的意思,也就是说“Louis XVI在纽扣眼中插了一朵 potato 花”,而题目也说“the King(即 Louis XVI)在他的纽扣眼中放了什么东西”,可以看出“sport”和“put”其实是同义替换,因此根据 potato 精确定位,答案应该填 flower。
7. 利用顺序原则和人名“Frederick”定位于原文第7段第1句“Frederick the Great of Prussia saw the potato's potential to help feed his nation and lower the price of bread, but faced the challenge of overcoming the people's prejudice against the plant.”根据题目 but 可再次定位到这一句话的后半部分,根据题目词性要求可以确定答案要填名词,然后精确定位到“overcoming the people's prejudice”,可以看出原文中的“overcoming”对应题干中的“handle”,所以确定答案填 prejudice。
8. 利用顺序原则和地名“Prussia”定位于原文第7段落,再根据题目细节信息“psychology”定位到本段中间“Frederick used a bit of reverse psychology”,根据题目词性要求确定答案要填形容词,且原文中“used”和题目中的“adopted”是同义替换,因此答案应该填 reverse。
9. 利用顺序原则和时间信息“1800”定位于原文第8段第2句“Prior to 1800, the English diet had consisted primarily of meat, supplemented by bread, butter and cheese.”其中原文的“Prior to”是题目中“Before”的同义替换,另外根据原文和题目的信息对比,确定答案为 meat。
10. 利用顺序原则和细节信息“high yielding”定位于原文第8段末句“High yielding, easily prepared potato crops were the obvious solution to England's food problems.”可以看出原文中的“obvious solution to”与题目中的“obvious way to deal with”是同义替换,再根据题目中“potato”的位置确定答案是 crops。
11. 利用顺序原则和地名“Irish”定位于原文第9段,再根据关键词“climate”和“suited”定位到末句“The potato was well suited to the Irish soil and climate...”,最后根据原文信息中的“the Irish soil and climate”对应题目信息,确定答案是 soil。
12. 利用顺序原则和时间信息“Between 1780 and 1841”定位于原文第10段第2句“The Irish population doubled to eight million between 1780 and 1841, this without any significant expansion of industry or reform of agricultural techniques beyond the widespread cultivation of the potato.”根据题目的信息可以确定答案需要填名词。题目说的是“在土豆什么的基础上, Irish 人口 doubled to eight million”,而原文则说“在没有任何明显

工业扩张或农业技术革新的情况下, 只靠广泛种植土豆, Irish 人口 doubled to eight million”。在此, 可以将原文中的 “beyond” 看作是题目中的 “based on” 的同义替换, 再根据题目要求 “只能填一个单词”, 确定答案就是 cultivation。

13. 利用顺序原则和细节信息 “the poorest farmers” 定位于原文第 10 段第 3 句 “...the potato's high yields allowed even the poorest farmers to produce more healthy food than they needed with scarcely any investment or hard labour.” 题目中的 “almost without” 是原文 “with scarcely any” 的同义替换, 原文的 “hard labour” 是题目中的 “hard physical work” 的同义替换, 再根据题目要求 “只能填一个单词”, 确定答案就是 investment。

## 参考译文

### The Impact of the Potato

#### 土豆的影响

*Jeff Chapman relates the story of history's most important vegetable*

Jeff Chapman 讲述史上最重要的蔬菜——土豆——的故事

The potato was first cultivated in South America between three and seven thousand years ago, though scientists believe they may have grown wild in the **region** as long as 13,000 years ago. The genetic patterns of potato distribution indicate that the potato probably **originated** in the mountainous west-central region of the continent.

虽然土豆首次在南美种植是在 3,000 到 7,000 年前, 但科学家们相信野生土豆在该地区已经有 13,000 年的历史了。土豆的遗传基因分布表明, 它可能起源于南美大陆中西部山区。

Early Spanish **chroniclers** who **misused** the Indian word batata (sweet potato) as the name for the potato noted the importance of the tuber to the Incan Empire. The Incas had learned to preserve the potato for storage by **dehydrating** and mashing potatoes into a substance called Chuño. Chuño could be stored in a room for up to 10 years, providing excellent **insurance against** possible crop failures. As well as using the food as a staple crop, the Incas thought potatoes made childbirth easier and used it to treat injuries.

早期西班牙的编年史家滥用印第安文字 batata (红薯) 作为土豆的名字, 他们记录了薯类植物对印加帝国的重要性。印加人早已学会了将土豆脱水和捣碎之后, 制成一种被称作 Chuño 的物质来贮存。这种东西可以在储藏室中存放长达 10 年之久, 因而为农作物歉收提供了充分的保障。同时印加人还把土豆作为主要作物, 因为他们认为土豆让分娩更容易, 也可以用来治疗伤痛。

The Spanish conquistadors first **encountered** the potato when they arrived in Peru in 1532 in search of gold, and noted Inca miners eating Chuño. At the time the Spaniards failed to realise that the potato **represented** a far more important **treasure** than either silver or gold, but they did gradually begin to use potatoes as basic rations aboard their ships. After the arrival of the potato in Spain in 1570, a few Spanish farmers began to cultivate them on a small scale, mostly as food for livestock.

1532 年, 当西班牙的征服者抵达秘鲁寻找黄金时, 首次遇到了土豆, 并注意到印加矿工吃的 Chuño。虽然当时西班牙人未能意识到土豆代表比金银更重要的财富, 但他们也逐渐开始在船上使用土豆作为基本口粮。1570 年, 当土豆到达西班牙后, 一些西班牙农民开始在小范围内种植它, 主要作为牲畜的饲料。

Throughout Europe, potatoes were regarded with suspicion, distaste and fear. Generally considered to be unfit for **human consumption**, they were used only as animal fodder and **sustenance** for the starving. In northern Europe, potatoes were primarily grown in botanical gardens as an exotic novelty. Even **peasants** refused to eat from a plant that produced ugly, **misshapen** tubers and that had come from a heathen civilisation. Some felt that the potato plant's **resemblance** to plants in the nightshade family hinted that it was the creation of witches or devils.

当时在整个欧洲, 人们对待土豆的态度是怀疑、厌恶和恐惧的。人们普遍认为土豆是不适合人类食用的, 它们仅用作动物的饲料和饥民的食物。在北欧, 土豆主要是种植在植物园, 作为一种异国的奇异植物。连农民都拒绝吃这种丑陋的、畸形的、来自野蛮国家的块茎植物。一些人认为土豆与茄科植物相类似, 都是巫婆或者魔鬼的创造。

In meat-loving England, farmers and urban workers regarded potatoes with extreme distaste. In 1662, the Royal Society recommended the cultivation of the tuber to the English government and the nation, but this recommendation had little impact. Potatoes did not become a **staple** until, during the food **shortages** associated with the Revolutionary Wars, the English government began to officially encourage potato cultivation. In 1795, the Board of Agriculture issued a **pamphlet** entitled "Hints Respecting the Culture and Use of Potatoes"; this was followed shortly by pro-potato editorials and potato recipes in *The Times*. Gradually, the lower classes began to follow the lead of the upper classes.

英格兰流行荤食主义, 农民和城镇职工对土豆的态度是极端的厌恶。1662 年, 英国皇家学会推荐英国政府及全国国民种植这种块茎植物, 但收效甚微。直到革命战争期间食物短缺, 英国政府开始正式鼓励种植土豆, 土豆才成为主食。1795 年, 农业委员会首先发行了一份小册子, 名为《关于土豆的文化及使用》; 紧接着又在《泰晤士报》上刊登了赞成种植土豆的言论以及有关土豆的食谱。渐渐地, 下层阶级开始效仿上层阶级, 食用土豆。

A similar pattern emerged across the English Channel in the Netherlands, Belgium and France. While the potato slowly gained ground in eastern France (where it was often the only crop remaining after **marauding** soldiers plundered wheat fields and vineyards), it did not achieve **widespread** acceptance until the late 1700s. The peasants remained suspicious, in spite of a 1771 paper from the Faculté de Paris testifying that the potato was not harmful but beneficial. The people began to overcome their distaste when the plant received the royal seal of approval: Louis XVI began to sport a potato flower in his buttonhole, and Marie-Antoinette wore the purple potato **blossom** in her hair.

类似的发展模式也在英吉利海峡对面的荷兰、比利时和法国上演。尽管在法国东部土豆已经慢慢普及(它经常是士兵抢夺麦田和葡萄园后剩下的唯一作物),但直到18世纪末,它才被广泛接受。尽管1771年,巴黎院校的一篇论文证明,土豆不仅无害反而有益,农民依然持怀疑态度。当土豆被法国皇室正式认可的时候,普通百姓也开始克服对土豆的厌恶情绪:当时,路易十六开始夸耀般地在他的纽扣眼中插上土豆花,玛丽·安托瓦内特(Marie-Antoinette)也在她的发髻上戴了紫色的土豆花。

Frederick the Great of Prussia saw the potato's potential to help feed his nation and lower the price of bread, but faced the challenge of overcoming the people's prejudice against the plant. When he issued a 1774 order for his subjects to grow potatoes as **protection** against **famine**, the town of Kolberg replied: "The things have neither smell nor taste, not even the dogs will eat them, so what use are they to us?" Trying a less direct approach to encourage his subjects to begin planting potatoes, Frederick used a bit of **reverse** psychology: he planted a royal field of potato plants and stationed a heavy guard to protect this field from thieves. Nearby peasants naturally **assumed** that anything worth guarding was worth stealing, and so **snuck** into the field and snatched the plants for their home gardens. Of course, this was **entirely** in line with Frederick's wishes.

普鲁士的腓特烈大帝看到了土豆有助于养活他的臣民和降低面包价格的潜能,但他同时面临着挑战,即如何克服人们对土豆的偏见。当他签署1774年的法令,要求臣民通过种植土豆来对抗饥荒时,科尔贝格小镇的镇长却发言说:“土豆闻起来、吃起来都没有任何味道,就算是狗都不会想吃,对我们又有什么用呢?”因此,为了鼓励他的臣民种植土豆,腓特烈大帝尝试了更为委婉的方式,即利用了民众的逆反心理:他在御园中种植土豆,并让皇家军队驻扎守护,防范附近的小偷。周边的农民自然地认为值得保护的东西就是好东西,所以偷偷混进园子,偷走了植物并种到自家菜园里。当然,这完全符合腓特烈大帝推广土豆的愿望。

Historians debate whether the potato was primarily a cause or an effect of the huge population



boom in industrial-era England and Wales. Prior to 1800, the English diet had consisted primarily of meat, **supplemented** by bread, butter and cheese. Few vegetables were consumed, most vegetables being regarded as nutritionally worthless and potentially harmful. This view began to change gradually in the late 1700s. The Industrial Revolution was drawing an ever increasing percentage of the **populace** into crowded cities, where only the richest could afford homes with ovens or coal storage rooms, and people were working 12-16 hour days which left them with little time or energy to prepare food. High yielding, easily prepared potato crops were the obvious solution to England's food problems.

历史学家对土豆是工业化时期英格兰和威尔士人口爆炸性增长的原因还是结果的问题展开了争论。1800 年之前,英国的饮食主要以肉食为主,面包、黄油和奶酪为辅。他们很少吃蔬菜,大多数蔬菜被视为营养价值低和潜在有害的作物。这种观点在 18 世纪后期逐渐开始发生变化。工业革命时期,越来越多的民众聚集到拥挤的城市,但只有其中最富有的一部分人才买得起带有烤箱或煤炭储藏室的房子。人们一天需要工作 12 到 16 个小时,几乎没有时间和精力准备食物。而高产、容易准备的土豆显而易见是解决英格兰粮食问题的最佳作物。

Whereas most of their neighbours regarded the potato with suspicion and had to be **persuaded** to use it by the upper classes, the Irish peasantry embraced the tuber more passionately than anyone since the Incas. The potato was well suited to the Irish soil and climate, and its high yield suited the most important concern of most Irish farmers: to feed their families.

继印加人之后,爱尔兰农民比其他任何人都更热情地接受了土豆。他们不像大多数邻国人民那样,对土豆持怀疑态度,还需要上层阶级说服老百姓接受土豆。爱尔兰的土壤和气候非常适合土豆生长,其高产的特点解决了大多数爱尔兰农民最关心的问题:养活他们的家庭。

The most dramatic example of the potato's potential to alter population patterns occurred in Ireland, where the potato had become a staple by 1800. The Irish population doubled to eight million between 1780 and 1841, this without any significant expansion of industry or **reform** of agricultural techniques beyond the widespread cultivation of the potato. Though Irish land-holding practices were primitive in comparison with those of England, the potato's high yields allowed even the poorest farmers to produce more healthy food than they needed with scarcely any investment or hard labour. Even children could easily plant, harvest and cook potatoes, which of course required no threshing, curing or grinding. The abundance provided by potatoes greatly decreased infant mortality and encouraged early marriage.

一个最能体现土豆改变人口格局潜力的例子发生在爱尔兰,1800 年土豆已经成为那里人

们的主食。在没有任何重大工业扩张或农业技术改革的情况下, 仅靠广泛种植土豆, 爱尔兰的人口在 1780 年到 1841 年之间就翻了一番, 达到八百万。虽然爱尔兰土地所有权制度与英国相比是落后的, 但土豆的高产量甚至允许最贫穷的农民生产更多的健康食品, 而且几乎不需要任何投入或者辛苦的劳作。因为土豆不需要脱粒、晒干或研磨, 所以即使是孩子都能轻易种植、收割和烹饪土豆。土豆的高产量大大降低了婴儿的死亡率, 同时促进了民众早婚。

## Reading Passage 2. Ancient Chinese Chariots

### 词汇详解

**chariot** *n.* 双轮战车 (该词作动词时, 表示“驾驭战车, 乘坐战车”。)

**historiography** *n.* 编史; 历史编纂学

**millennium** *n.* 一千年 (century 一百年; BC 公元前。)

**artefact** *n.* 人工制品; 手工艺品

**unearth** *v.* 发掘; 揭露, 发现 (尤指经过努力或困难后才发现的, 与 excavate 是同义词。)

**grave goods** 陪葬品

**possess** *v.* 拥有, 持有; 掌握, 控制 (be possessed by 被……所支配; possess oneself 自制, 保持镇静; possess someone of something 使某人拥有某物。名词形式为 possession, 表示“拥有, 财产”。)

**corpse** *n.* 尸体

**well** *n.* 井, 泉 *v.* 涌出 *adv.* 很好地, 满意地 *adj.* 良好的, 健康的 (作动词时, 口语经常用 “Tears welled in my eyes” 表示 “热泪盈眶”。此外, 口语中 well 常用于说话前或是说话停顿的前后, 以便给自己思考的时间。文中的 well 是名词, 指当地农民挖的 “井”。)

**riddled** *adj.* 充满的, 泛滥的 (“充满, 布满……” 的英文表达为 “be riddled with”。)

**cavalry** *n.* 骑兵, 装甲兵 (“骑兵” 还可以说 “trooper”, 口语中经常用。)

**dismantle** *v.* 拆除, 拆卸, 拆开 (动词原形加上后缀 -ment 则为名词形式 dismantlement, 表示 “拆卸, 拆除”。表示 “拆除” 还有一种很形象的说法: tear down。)

**unparalleled** *adj.* 无可匹敌的, 无双的 (parallel 指 “对比”, 加上否定前缀 un- 和表示 “……的” 的后缀 -ed, 指 “空前的, 无双的”。)

**axle** *n.* 车轴, 轮轴

**saw** *v.* 锯开 (sawn lumber 指 “锯材”。)

**excavation** *n.* 挖掘, 开凿 (动词形式为 excavate, 指 “挖掘, 开凿”, 与 unearth 是同义词。在阅读和听力部分有关考古的文章中, 我们经常会遇到 “dig” 挖掘这个词。)



**spoke** *n.* 轮辐, (车轮外圈与中心之间连接的) 辐条

**oak** *n.* 橡树, 橡木

**felloe** *n.* 外轮, 车轮外缘

**hub** *n.* 轮毂, 车轮中心处

**temper** *v.* 使(金属)回火; 调和

**retain** *v.* 保持, 保留, 保存 (retain 有“存留”之意, 使原本存在的东西保留下来。同义词有: hold 表示“保持同样程度或比率、速度等”; keep 一般指“保持某种状态”, 比如 keep doing something。)

**elaborate** *adj.* 精心制作的, 煞费苦心的, 精密的, 详尽的 *v.* 阐述, 详尽解释 (“详细说明”的英文表述是 “elaborate on”。同义词有: detailed, full。)

**asset** *n.* 优点, 有利条件, 有价值的人或物; 资产, 财产 (“固定资产”的英文表达为 “fixed assets”。)

**strut** *n.* 支杆, 支柱, 支撑物

**precursor** *n.* 先锋, 先行者, 前辈; 初期形式

**wield** *v.* 使用、掌握 (武器、设备或工具); 行使 (权利等)

**strike** *v.* 击打, 敲打, 袭击, 罢工 (过去式为 struck, 过去分词为 struck 或 stricken。文中词组 “strike down” 意为 “杀死, 打倒在地”。其他相关词组有: be struck by 被……袭击; call a strike 号召罢工。)

**unification** *n.* 统一, 联合

**opulent** *adj.* 豪华的, 奢侈的; 大量的, 丰富的 (同义词有: grand, luxurious, deluxe。)

**sprawling** *adj.* 蔓生的, 延伸的

## 题目详解

### Questions 14-17

#### 解答

14. 利用顺序原则和专有名词 “grave goods” 定位于原文第 2 段第 4 句 “These grave goods are confirmed by the oracle texts, which constitute almost all of the first hand written record we possess of the Shang Dynasty.” 从上述内容可以很容易看出这些陪葬物品已由 “oracle texts” 所确认, 该数据库几乎包含了我们所有的关于商朝的第一手资料。题目与原文信息一致, 所以正确答案为 TRUE。
15. 利用顺序原则继续看第 2 段末句 “Below the corpse was a small pit holding the remains of six sacrificial dogs and along the edge lay the skeletons of human slaves, evidence of human sacrifice”, 可以看出 skeletons 是因为祭祀, 而不是因为战争才出现在 tomb 里面的。此外, skeletons 是 human slaves 的, 而不是 soldiers 的。因此本题题目与原文

中的内容相反, 选择 FALSE。

16. 利用顺序原则和专有名词 “Terracotta Army” 定位于原文第 3 段第 2 句 “The terracotta soldiers were accidentally discovered when a group of local farmers was digging a well during a drought around 1.6 km (1 mile) east of the Qin Emperor’s tomb around at Mount Li (Lishan), a region riddled with underground springs and watercourses”, 从上述内容可以看出, 兵马俑是一群当地的农民因天气干旱而打井的时候偶然发现的, 题目中的 “by chance” 对应原文中的 “accidentally”, 因此本题题目与原文内容一致, 选择 TRUE。
17. 利用顺序原则和专有名词 “King Tutankhamun’s tomb” 和 “Qin Emperor’s tomb” 定位于原文第 3 段的最后部分, 可以看出原文比较的其实是 “buried chariots” (中国的 130cm 长, 埃及法老图坦卡蒙的只有 90cm 长), 并不是指墓穴的尺寸, 原文中没有提到关于 “tomb size” 的信息, 因此题目信息在原文中没有相对应的内容, 所以正确答案是 NOT GIVEN。

### Questions 18-23

#### 解答

18. 利用顺序原则和关键词 “hub” 以及题目细节信息 “made of wood from the tree” 定位于原文第 4 段第 2 句 “Wheels were constructed from a variety of woods: elm provided the hub, rose-wood the spokes and oak the felloes.” 因此答案应该填 elm。
19. 利用顺序原则继续看第 4 段第 3 句 “The hub was drilled through to form an empty space into which the tempered axle was fitted, the whole being covered with leather to retain lubricating oil.” 该轮毂中部是通过钻孔形成的空间, 在此安装上一条车轴, 上面覆盖一层皮革, 然后涂上润滑油, 因此确定答案填 lubricating oil。
20. 利用顺序原则继续看第 4 段, 再根据题目细节信息 “spokes varies” 定位到本段中间 “Though the number of spokes varied, a wheel by the fourth century BC usually had eighteen to thirty-two of them.” 因此答案应该填 18 to 32。
21. 利用顺序原则和细节信息 “wheel resembles” 定位到第 4 段第 7 句话 “Dishing refers to the dish-like shape of an advanced wooden wheel, which looks rather like a flat cone.” 题目中 “resembles” 与原文 “like” 为同义替换, 根据原文和题目的对比, 确定答案为 dish/flat cone。
22. 利用顺序原则和细节信息 “strengthen” 定位于原文第 4 段第 8 句话 “On occasion they chose to strengthen a dished wheel with a pair of struts running from rim to rim on each of the hub.” 可以明显看出原文中的 “a pair of” 对应题目中的 “Two”, 所以确定答案是 struts。

23. 利用顺序原则和细节信息 “edge”, “wrapped up by leather” 定位到第 4 段末句 “Leather wrapped up the edge of the wheel aimed to retain bronze” 可以很容易确定答案是 bronze。

### Questions 24-26

#### 解答

24. 利用顺序原则和细节信息 “pressure” 定位于原文第 5 段第 3 句 “Because the shafts curved upwards, and the harness pressed against a horse’s shoulders, not his neck, the shaft chariot was incredibly efficient.” 题目问的是 “马身体的哪一部分免受来自马具的压力”, 根据原文 “the harness pressed against a horse’s shoulders, not his neck” 可以看出马具对马的双肩施加压力, 而不是马的颈部, 所以马的颈部免受压力, 因此确定答案就是 neck。
25. 利用顺序原则和细节信息 “speed of the chariot” 定位于原文第 5 段倒数第 2 句 “The speed of the chariot which was tested on the sand was quite fast.” 根据原文 “tested on the sand” 可知战车是在沙地上进行速度测验的, 因此确定答案就是 sand。
26. 利用顺序原则和关键信息 “Emperor Qin Shi Huang buried” 定位于原文第 6 段第 3 句话 “Qin Shi Huang was buried in the most opulent tomb complex ever constructed in China, a sprawling, city-size collection of underground caverns containing everything the emperor would need for the afterlife.” 根据题目信息推测需要填名词, 且不能多于两个词, 确定答案就是 tomb complex。

### 参考译文

#### Ancient Chinese Chariots

#### 中国古战车

The Shang Dynasty or Yin Dynasty, according to traditional **historiography**, ruled in the Yellow River valley in the second **millennium** BC. Archaeological work at the Ruins of Yin (near modern-day Anyang), which has been identified as the last Shang capital, uncovered eleven major Yin royal tombs and the foundations of palaces and ritual sites, containing weapons of war and remains from both animal and human sacrifices.

根据传统史学,在公元前第 2 个千年(约前 17 世纪 - 前 11 世纪)时,商朝(又称殷或殷商)统治着黄河流域。殷墟是商朝最后的都城遗址,在今安阳附近。在这里,考古发现 11 座殷商时期主要皇家陵墓、宫殿及祭坛的地基,其中包含战争武器和用于祭祀的牲畜与人类遗骸。

The Tomb of Fu Hao is an archaeological site at Yinxu, the ruins of the ancient Shang Dynasty's capital Yin, within the modern city of Anyang in Henan Province, China. Discovered in 1976, it was identified as the final resting place of the queen and military general Fu Hao. The **artefacts unearthed** within the grave included jade objects, bone objects, bronze objects etc. These **grave goods** are confirmed by the oracle texts, which constitute almost all of the first hand written record we **possess** of the Shang Dynasty. Below the **corpse** was a small pit holding the remains of six sacrificial dogs and along the edge lay the skeletons of human slaves, evidence of human sacrifice.

妇好墓考古遗址位于殷墟——古代商朝首都遗址，在今中国河南省安阳市境内。该墓于1976年被发现，已被确认为王后兼军事统帅妇好的最后安息地。墓地出土文物包括玉器、骨器及青铜器等。这些陪葬物品已由甲骨文数据库所确认，该数据库几乎包含了我们所有的关于商朝的第一手的文字资料。在遗体下有一个小坑，坑里有6具殉葬狗的骨架，坑的边缘是人类奴隶的骨架，这是活人祭祀的证据。

The Terracotta Army was discovered on 29 March, 1974 to the east of Xi'an in Shaanxi. The terracotta soldiers were accidentally discovered when a group of local farmers was digging a **well** during a drought around 1.6 km (1 mile) east of the Qin Emperor's tomb around at Mount Li (Lishan), a region **riddled** with underground springs and watercourses. Experts currently place the entire number of soldiers at 8,000 — with 130 chariots (130 cm long), 530 horses and 150 **cavalry** horses helping to ward off any dangers in the afterlife. In contrast, the burial of Tutankhamun yielded six complete but **dismantled** chariots of **unparalleled** richness and sophistication. Each was designed for two people (90 cm long) and had its **axle sawn** through to enable it to be brought along the narrow corridor into the tomb.

秦兵马俑发现于1974年3月29日，位于今陕西西安的东部。在骊山秦始皇陵以东约1.6公里的地方，当地的一群农民因天气干旱而打井的时候，偶然发现了兵马俑。这个地区遍布着地下泉水和河道。专家称目前整个兵俑的数量在8,000人左右，并且有130辆战车（长130厘米）、530匹马和150匹装甲战马来帮助墓主挡住来世的所有危险。相比之下，埃及法老图坦卡蒙墓地中则出土了6辆完整但被拆分的战车，这些战车空前奢华、精致，每辆战车（长90厘米）都被设计为可容纳两个人的空间。这些战车的车轴均被锯穿，以便它们能穿过狭窄的通道，进入墓地。

**Excavation** of ancient Chinese chariots has confirmed the descriptions of them in the earliest texts. Wheels were constructed from a variety of woods: elm provided the hub, rose-wood the **spokes** and **oak** the **felloes**. The **hub** was drilled through to form an empty space into which the **tempered** axle was fitted, the whole being covered with leather to **retain** lubricating oil. Though

the number of spokes varied, a wheel by the fourth century BC usually had eighteen to thirty-two of them. Records show how **elaborate** was the testing of each completed wheel: flotation and weighing were regarded as the best measures of balance, but even the empty spaces in the assembly were checked with millet grains. One outstanding constructional **asset** of the ancient Chinese wheel was dishing. Dishing refers to the dish-like shape of an advanced wooden wheel, which looks rather like a flat cone. On occasion they chose to strengthen a dished wheel with a pair of **struts** running from rim to rim on each of the hub. As these extra supports were inserted separately into the felloes, they would have added even greater strength to the wheel. Leather wrapped up the edge of the wheel aimed to retain bronze.

被挖掘出来的中国古代战车证实了早期文字中对古战车的描述。战车的轮子由各种各样的木材制成：其中轮毂由榆木制成，车轮辐条由黄花梨木制成，而外轮则是由橡木做成。轮毂中部会被穿孔，以便安装调节的车轴，上面覆盖一层皮革来保护润滑油。虽然辐条的数量不同，但到了公元前4世纪时，一个轮子上会有18到32根辐条。记录显示了对每一个成品车轮的测试有多么复杂：悬浮和称重被认为是最好的测试平衡的措施，甚至连装配的间隙都用填充谷物检测过。中国古代战车车轮的一个显著结构优势是它的形状看起来像个碟子，碟形即指高级木制车轮的形状像盘子一样，就像一个扁平的圆锥体。有时，他们会选择在每一个轮毂的边缘间加上一对支柱，以使碟形架构更加牢固。这些分别插入车轮的额外支撑物将会增加车轮的整体强度。皮革包裹着车轮的边缘，旨在保护青铜不被磨损。

Within a millennium, however, Chinese chariot-makers had developed a vehicle with shafts, the **precursor** of the true carriage or cart. This design did not make its appearance in Europe until the end of the Roman Empire. Because the shafts curved upwards, and the harness pressed against a horse's shoulders, not his neck, the shaft chariot was incredibly efficient. The halberd was also part of a chariot standard weaponry. This halberd usually measured well over 3 metres in length, which meant that a chariot warrior **wielding** it sideways could **strike** down the charioteer in a passing chariot. The speed of the chariot which was tested on the sand was quite fast. At speed these passes were very dangerous for the crews of both chariots.

然而，在不到一千年的时间里，中国的战车制造者已经开发出了带辕子的车辆，这是真正的四轮马车或运货马车的先驱。这个设计直到罗马帝国后期才在欧洲出现。因为辕子向上弯曲，马具被套在马的肩膀上而不是它的脖子上，如此一来这种战车的效率便高得惊人。戟也是战车标配武器的一部分。这种戟的长度通常超过3米，这意味着一个战车勇士向侧面挥动武器时可以击倒过路战车上的驾驭者。战车在沙地上进行过测试，车辆速度非常快。高速行驶的两辆战车擦身而过对两辆战车中的人都非常危险。

The advantages offered by the new chariots were not entirely missed. They could see how there were literally the Warring States, whose conflicts lasted down the Qin **unification** of China. Qin Shi Huang was buried in the most **opulent** tomb complex ever constructed in China, a **sprawling**, city-size collection of underground caverns containing everything the emperor would need for the afterlife. Even a collection of terracotta armies called Terra-Cotta Warriors was buried in it. The ancient Chinese, along with many cultures including ancient Egyptians, believed that items and even people buried with a person could be taken with him to the afterlife.

由新战车所提供的优势并没有被完全错过。它们见证了战国时期的各场战争，直至秦统一中国。秦始皇被埋葬在中国有史以来最豪华的墓群里，这是一个延伸的像城市规模的地下洞窟，里面包含所有秦始皇来生所需物品。这里甚至埋葬了一批用陶土制成的军队，他们被称为兵马俑。古代中国人，以及许多古代文明包括古埃及人，都相信陪葬物品，甚至殉葬人可以被陵墓主人带去来世。

### Reading Passage 3. Stealth Forces in Weight Loss

#### 词汇详解

**molecular** *adj.* 分子的(原文中“molecular biologists”指“分子生物学家”。常见的“molecular structure”表示“分子结构”之意。在口语中，我们说的“分子状态”为“molecular state”。)

**nutritionist** *n.* 营养师，营养学家(复数形式为 nutritionists。在美语口语中常用“dietitian”表示营养师。)

**infection** *n.* 感染，传染；影响；传染病(与“影响”之意相近的词有：impression, affection, effect, influence, incidence。这些词在雅思阅读和写作考试中都比较常用。)

**insulin** *n.* 胰岛素(相关词汇有：trypsin 胰蛋白酶。)

**subscribe** *v.* 订阅；捐助；签署；同意，赞成(文章中的“subscribes to their own little theory”表示“赞同或者支持他们自己的小理论”，此时可以与“agree with sth”同义替换。)

**predispose** *v.* 使某人倾向于某事物，使某人易患某病(“有……的倾向”可以使用“be predisposed to”的表述，文章中强调的是“易患……病”。)

**desensitise** *v.* 使某人对……不敏感或无感觉，使脱敏；使麻木不仁

**obese** *adj.* 过度肥胖的(形容词 overweight 也表示“过胖的”，而且意思偏向“体重超过正常水平，但不严重”的一个词。obesity 是其名词形式，意思是“a condition in which someone is too fat in a way that is dangerous for their health”，偏向于外表，是程度很重的一个词。)

**metabolism** *n.* 新陈代谢 (相关词汇有: metabolite 代谢物; metabolise 使发生新陈代谢。)

**behavioural** *adj.* 行为的 (“behavioural science” 意为“行为科学”。名词 behaviour 指“行为, 举止”; “pay attention to your behaviour” 表示“注意举止”, 可用于作文中。behave 为动词形式, 短语 behave well 表示“举止得体, 举止良好”。)

**espouse** *v.* 支持, 赞成, 拥护

**whittle** *v.* 削减, 减少 (常见短语 whittle down 表示“削减, 削弱”; 在文章中 “It’s enough to whittle your weight down to the low end...” 强调“减至……”。)

**diabetes** *n.* 糖尿病 (diabetic 作名词时表示“糖尿病患者”; 作形容词时表示“糖尿病的”。医学术语 “polyuria” 表示“多尿症”。)

**negotiation** *n.* 谈判, 商议 (同义词有: treaty, discussion。阅读中常出现的短语 “negotiation skill” 意为“谈判技巧”。)

**established** *adj.* 确定的, 已制定的 (常见短语: be established in 立足于; established company 知名公司; established practice 惯例, 成规。同义词有: fixed, defined, positive, assured, affirmatory。)

**secrete** *v.* 隐匿; 分泌 (同义词: excrete, 表示“分泌”。)

**promote** *v.* 提升, 促进 (反义词 demote 表示“使降级”。常见短语: promote sales 促销; promote reform 促进改革; promote cooperation 促进合作。同义词: advance 作动词时一般指价格、成本等上涨。)

**sicken** *v.* 生病; 令……感到恶心或厌恶 (表示“生病”时的同义词: ill 常用于英国, 而 sick 常用于美国; ill 只作表语, 而 sick 既可作表语也可以作定语。例如: 可以说 a sick man, 但不可以说 an ill man。从意思上看: sick 还表示“恶心的, 要呕吐的”。ill 有“邪恶”的意思。)

**exposure** *n.* 暴露, 揭露, 显露 (同义词有: reveal, showing。在雅思写作中, 我们常用 “exposure to” 强调“暴露”之意。)

**inhibit** *v.* 抑制; 阻碍 (形容词 inhibited 还有“拘谨的, 不自然的”的意思; “inhibited factor” 表示“抑制因素”; 常见的含有“抑制的, 禁止的”的意思的形容词有: modest, suppressive。)

**vaccine** *n.* 疫苗

## 题目详解

### Questions 27-31

#### 思路

这种题型最好的解题方法应该是通过对每位考生都能读懂的内容进行反向思维, 然后和段落内容进行比较, 排除作答。



解 答

27. 根据反向思维信息 “different kinds of diets” 推断, 原文对应段落中应该会出现具体的关于不同节食方式对于减肥的不同效果的例子。该题对应信息出现在原文段落 E。由句子 “The paper compared two groups of adults... Within each group, half were put on a low-fat diet and half on a low-glycemic-load diet.” 可看出实验分为两组进行, 而之后的内容则为不同组别的人所减掉的不同重量和反弹情况, 因此正确答案是 E。
28. 根据反向思维信息 “relatives of the participants”, 可定位至原文段落 D 第 3 句话 “If a woman has high blood-sugar levels while she’s pregnant, her children are more likely to be overweight or obese, according to a study of almost 10,000 mother-child pairs.” 一项对近一万对母子的调查研究表明, 如果一位女性在怀孕时有高血糖, 那么她的孩子更容易超重或肥胖。题干中的 “research” 与原文中的 “study” 为同义替换, 题目中的 “relatives of the participants” 与原文中的 “her children” 互换, 因此正确答案是 D。
29. 根据反向思维信息 “did not regain weight immediately after weight loss” 推断, 减肥后并非再也没有反弹, 而是没有立刻反弹。由此可定位至原文段落 C 中间 “Barrett suggests... a self-selected group of more than 5,000 successful weight-losers who have shed an average of 66 pounds and kept it off 5.5 years.” 这个自我选择的组织有 5000 多名成功的减肥者, 他们平均减重 66 磅, 并且保持了 5 年半。题干中的关键内容 “did not regain weight immediately after weight loss” 替代了原文中的 “kept it off 5.5 years (保持了 5 年半)”, 因此正确答案是 C。
30. 根据反向思维信息 “long term hunger” 推断, 原文对应段落中应该会出现一个有关 hunger 的信息, 该题对应信息出现在原文段落 B 倒数第 2、3 句 “Obese dieters’ bodies go into a state of chronic hunger, a feeling... compares to thirst. ‘Some people might be able to tolerate chronic thirst, but the majority couldn’t stand it’”。在这里, 考生尤其需要注意的一点是 “chronic hunger, a feeling... compares to thirst” 中的 “a feeling... compares to” 将 “chronic hunger” 和 “chronic thirst” 这两种 feeling 等同起来了。所以对 “thirst” 的举例同样适用于 “hunger”。因此, 我们可以得出 “Some people might be able to tolerate chronic hunger, but the majority couldn’t stand it” 的结论。此外, chronic 表示 “长期的, 慢性的”, 所以文章中的 “chronic hunger (等同于 chronic thirst 的感觉)” 与题目中的 “long term hunger” 为同义替换, 并且在剑桥雅思试题中曾经出现过这样的替换, 因此, 确定正确答案是 B。
31. 根据反向思维信息 “a continuous experiment” 推断, 原文对应段落应该提及一系列的实验或者因实验产生的许多数据。首先定位于原文段落 F 和段落 G, 发现原文段落 F 只讨论了肥胖是不是由病毒引起的, 以及对 chicken 进行的实验, 并未提及实验能否产生什么实际性结果 (lead to a practical application...), 所以排除 F 段。然后, 从 G 段末句 “The gene appears to be necessary and sufficient to trigger AD-36-



related obesity, and the goal is to use the research to create a sort of obesity vaccine”可知, 该实验未来的目标是利用这项研究创造出某种肥胖疫苗, 而疫苗 (a sort of obesity vaccine) 即题干中的 “a practical application (实际应用)”, 因此正确答案是 G。

### Questions 32-36

#### 解答

32. 根据细节信息 “DNA and the environment” 定位到原文段落 D 第 1、2 句话 “The negotiation between your genes and the environment begins on day one. Your optimal weight, writ by genes, appears to get edited early on by conditions even before birth, inside the womb.” 文章中指出 “你的基因和环境之间的谈判从第一天就开始了。你的最佳体重是由基因设定的, 而且似乎在早期就按条件编辑好了, 甚至是在出生前, 在子宫里面。” 该段落中提出此观点的人是 Teresa Hillier, 因此答案选 F。
33. 根据细节信息 “Pregnant mothers” 定位至原文段落 D 倒数第 3 句 “Numerous studies in both animals and humans have shown that a mother’s obesity directly increases her child’s risk for weight gain.” 文章中指出 “母亲的肥胖会直接提高孩子体重增加的风险”。从这句话向前追溯, 可知这句话依然是 Teresa Hillier 说的, 因此答案选 F。
34. 根据细节信息 “aim”, “healthy” 定位至原文段落 C 倒数第 4 句 “The goal shouldn’t be getting thin, but getting healthy.” 题干的 “aim” 与原文的 “goal” 为同义替换, 原文的 “thin” 与题干的 “attractive” 为同义替换。向下追溯可知这个观点是 Jeffrey Friedman 提出的, 因此答案选 E。
35. 根据细节信息 “Small changes” 定位至原文段落 C 第 5 句 “People don’t lose weight by choosing the small fries or taking a little walk every other day.” 文章中指出 “仅仅选择小份的薯条或是隔天散步一小会儿并不能减肥。” 这些都是很小的改变, 即题干中的 “Small changes”, 因此题干中的意思与文中此处相符, 由上下文可知研究者 Deirdre Barrett, 因此答案选 D。
36. 根据细节信息 “different groups” 及 “their own point of view” 定位至原文段落 A 第 2、3 句 “Some say obesity is largely predetermined by our genes and biology; others attribute... ‘Everyone subscribes to their own little theory,’ says Robert Berkowitz”。第 2 句话罗列了不同研究者的不同观点, 而后 Robert 认为 “每个人都支持自己的那套小理论”, 题干意思与文中此处相符, 因此答案为 A。

## Questions 37-40

## 解答

37. 根据顺序性原则和细节信息 “Bombay Clinic” 及 “virus” 定位至原文段落 F 末句 “In experiments, Dhurandhar found that SMAM-1-infected chickens became obese on the same diet as uninfected ones, which stayed svelte.” 文章中指出 “在实验中, 被 SMAM-1 病毒感染鸡增肥了”, 所以实验对象是鸡, 因此答案是 chickens。
38. 根据顺序性原则和细节信息 “moved to America” 定位至原文段落 G 首句 “He later moved to the U.S. and onto a bona fide human virus, adenovirus 36 (AD-36).” 文章中指出 “他移居美国后找到了一个真正的人类病毒, 即 adenovirus 36 (AD-36)”, 因此答案为 adenovirus 36 或 AD-36。
39. 根据顺序性原则和细节信息 “can be separated” 定位至原文段落 G 第 3 句 “In his latest studies, Dhurandhar has isolated a gene that, when blocked from expressing itself, seems to turn off the virus’s fattening power.” 文章中指出 “他在最近的实验中分离了一种基因, 这种基因在自我传递受阻时, 似乎会关闭病毒的发胖力量”。题干中的 “be separated” 对应原文中的 “isolated”, 因此答案是 gene。
40. 根据顺序性原则及细节信息 “aiming at” 定位至原文段落 G 末句 “The gene appears to be necessary and sufficient to trigger AD-36-related obesity, and the goal is to use the research to create a sort of obesity vaccine.” 文章中指出 “未来的目标是利用这项研究创造出一种肥胖疫苗”。题干意思与原文此处相符, 因此答案是 vaccine。

## 参考译文

## Stealth Forces in Weight Loss

## 减肥的各种潜在力量

*The field of weight loss is like the ancient fable about the blind men and the elephant. Each man investigates a different part of the animal and reports back, only to discover their findings are bafflingly incompatible.*

人们对减肥领域的研究就像古代寓言中的盲人摸象: 每个人都研究了动物的不同部分, 然后做了份报告, 最后却困惑地发觉他们的发现大相径庭。

A The various findings by public-health experts, physicians, psychologists, geneticists, **molecular** biologists, and **nutritionists** are about as similar as an elephant’s tusk is to its tail. Some say obesity is largely predetermined by our genes and biology; others attribute it to an overabundance of fries, soda, and screen-sucking; still others think we’re fat because of

viral **infection**, **insulin**, or the metabolic conditions we encountered in the womb. “Everyone **subscribes** to their own little theory,” says Robert Berkowitz, medical director of the Center for Weight and Eating Disorders at the University of Pennsylvania School of Medicine. We’re programmed to hang onto the fat we have, and some people are **predisposed** to create and carry more fat than others. Diet and exercise help, but in the end the solution will inevitably be more complicated than pushing away the plate and going for a walk. “It’s not as simple as ‘You’re fat because you’re lazy,’” says Nikhil Dhurandhar, an associate professor at Pennington Biomedical Research Center in Baton Rouge. “Willpower is not a prerogative of thin people. It’s distributed equally.”

- A 公共卫生专家、医生、心理学家、遗传学家、分子生物学家和营养学家的各种调查结果之间的差异就如同大象的象牙和尾巴之间的差距一样大。有些人说肥胖很大程度上取决于我们的基因和生理条件；另外一些人则将之归结于吃了过多的薯条，喝了太多的汽水和总盯着电脑屏幕；还有一些人认为肥胖是因为人还在子宫里时，遇上了病毒感染、胰岛素或代谢异常。“每个人都支持自己的那套小理论，”宾夕法尼亚大学医学院体重和饮食失调中心的医疗主任罗伯特·伯克沃兹（Robert Berkowitz）如是说道。我们与生俱来就要带着脂肪，而有些人则注定比其他人生成和携带更多的脂肪。节食和运动有助于减肥，但最后的解决方案将不可避免地比推开餐盘和散步更为复杂。“这不是‘你懒所以你胖’那么简单的问题，”巴吞鲁日潘宁顿生物医学研究中心的副教授尼基尔·杜源德哈（Nikhil Dhurandhar）说道：“意志力并不是瘦人的特权。它在人群中是均等分布的。”

- B Science may still be years away from giving us a miracle formula for fat-loss. Hormone leptin is a crucial player in the brain’s weight-management circuitry. Some people produce too little leptin; others become **desensitised** to it. And when **obese** people lose weight, their leptin levels plummet along with their **metabolism**. The body becomes more efficient at using fuel and conserving fat, which makes it tough to keep the weight off. Obese dieters’ bodies go into a state of chronic hunger, a feeling Rudolph Leibel, an obesity researcher at Columbia University, compares to thirst. “Some people might be able to tolerate chronic thirst, but the majority couldn’t stand it,” says Leibel. “Is that a **behavioural** problem — a lack of willpower? I don’t think so.”

- B 科学可能还需要好几年的时间才能给我们提供一个有奇效的减肥配方。瘦素这一激素在大脑体重管理线路中发挥着重要作用。有些人分泌的瘦素太少；而其他人则变得对其麻木了。当肥胖的人减肥时，他们的瘦素水平及新陈代谢会直线下降。他们的身体会更有效地消耗能量和储存脂肪，这使得他们很难减肥成功。肥胖节食者的身体会进入一种长期饥饿的状态，哥伦比亚大学的肥胖研究员鲁道夫·利贝尔（Rudolph

Leibel) 将这种感觉比作口渴。“有些人可能可以忍受长期的口渴,但是绝大部分人是无法忍受的,”利贝尔说道:“这是缺乏意志力的问题吗?我认为不是。”

C The government has long **espoused** moderate daily exercise — of the evening-walk or take-the-stairs variety — but that may not do much to budge the needle on the scale. A 150-pound person burns only 150 calories on a half-hour walk, the equivalent of two apples. It's good for the heart, less so for the gut. “Radical changes are necessary,” says Deirdre Barrett, a psychologist at Harvard Medical School and author of *Waistland*. “People don't lose weight by choosing the small fries or taking a little walk every other day.” Barrett suggests taking a cue from the members of the National Weight Control Registry (NWCR), a self-selected group of more than 5,000 successful weight-losers who have shed an average of 66 pounds and kept it off 5.5 years. Some registry members lost weight using low-carb diets; some went low-fat; others eliminated refined foods. Some did it on their own; others relied on counselling. That said, not everyone can lose 66 pounds and not everyone needs to. The goal shouldn't be getting thin, but getting healthy. It's enough to **whittle** your weight down to the low end of your set range, says Jeffrey Friedman, a geneticist at Rockefeller University. Losing even 10 pounds vastly decreases your risk of **diabetes**, heart disease, and high blood pressure. The point is to not give up just because you don't look like a swimsuit model.

C 政府长久以来一直支持人们做适当的日常运动,比如晚间散步或爬楼梯,但那可能不会对减肥有很大帮助。一个150磅的人散步半小时只会燃烧150卡路里,相当于两个苹果的热量。这对心脏有好处,对肠胃却没那么好。“彻底的改变是必要的,”黛笛儿·芭瑞特(Deirdre Barrett)说道。她是哈佛大学医学院的心理学家,同时也是《腰围地带》(*Waistland*)的作者。“通过选择小份的炸薯条或隔天散散步来减肥是行不通的。”芭瑞特建议从国家体重控制登记处(NWCR)的成员中找线索。NWCR是一个自我选择的组织,有5000多名成功的减肥者,他们平均减重66磅,并且保持了5年半之久。有些注册会员通过低碳水化合物的饮食方式减肥;有些选择摄取低脂食物;其他人则放弃吃精制食物。有些人依靠自己完成了减肥,其他人则依赖专家指导。也就是说,不是每个人都能减掉66磅,而且也不是每个人都需要如此。减肥的目标不应该是变瘦,而应是变得越来越健康。将你的体重减至你所设定范围的低端就足够了,洛克菲勒大学遗传学家杰弗里·弗里德曼(Jeffrey Friedman)如是说。即使只减去10磅也能大大降低你患糖尿病、心脏病和高血压的风险。关键是不要仅仅因为你看起来不像一个泳装模特那样健美就放弃减肥。

D The **negotiation** between your genes and the environment begins on day one. Your optimal

weight, writ by genes, appears to get edited early on by conditions even before birth, inside the womb. If a woman has high blood-sugar levels while she's pregnant, her children are more likely to be overweight or obese, according to a study of almost 10,000 mother-child pairs. Maternal diabetes may influence a child's obesity risk through a process called metabolic imprinting, says Teresa Hillier, an endocrinologist with Kaiser Permanente's Center for Health Research and the study's lead author. The implication is clear: Weight may be **established** very early on, and obesity largely passed from mother to child. Numerous studies in both animals and humans have shown that a mother's obesity directly increases her child's risk for weight gain. The best advice for moms-to-be: Get fit before you get pregnant. You'll reduce your risk of complications during pregnancy and increase your chances of having a normal-weight child.

- D 你的基因和环境之间的谈判从第一天就开始了。你的最佳体重是由基因设定的，而且似乎早早的就按条件编辑好了，甚至是在出生之前，在子宫里的时候。根据一项对近一万对母子的调查研究所示，如果一位女性在她怀孕时有高血糖，那么她的孩子更容易超重或肥胖。孕产妇的糖尿病可能通过一种叫代谢印记的过程来增加孩子的肥胖风险，特里萨·希利尔（Teresa Hillier）如是说。她是凯萨永久性健康研究中心的内分泌学家，同时也是该研究项目的负责人。言下之意很明确：人的体重可能在很早前就确定了，而肥胖在很大程度上是由母亲遗传给孩子的。对动物和人类的无数研究已经表明，母亲的肥胖将直接提高孩子体重增加的风险。对准妈妈们最好的建议是：在怀孕前保持健康。这样你将减少孕期并发症的风险，并且更加有机会拥有一个正常体重的孩子。

- E It's the \$64,000 question: Which diets work? It got people wondering: Isn't there a better way to diet? A study seemed to offer an answer. The paper compared two groups of adults: those who, after eating, **secreted** high levels of insulin, a hormone that sweeps blood sugar out of the bloodstream and **promotes** its storage as fat, and those who secreted less. Within each group, half were put on a low-fat diet and half on a low-glycemic-load diet. On average, the low-insulin-secreting group fared the same on both diets, losing nearly 10 pounds in the first six months — but they gained about half of it back by the end of the 18-month study. The high-insulin group didn't do as well on the low-fat plan, losing about 4.5 pounds, and gaining back more than half by the end. But the most successful were the high-insulin-secretors on the low-glycemic-load diet. They lost nearly 13 pounds and kept it off.

- E 哪一种饮食能够起作用？这是一个价值 64,000 美元的问题。它引发人们思考：难道没有更好的节食方式吗？一项研究似乎提供了一个答案。该研究比较了两组成年人：一组人吃东西后会分泌高水平的胰岛素，这种激素会扫除血液中的血糖，并促进其

存储为脂肪；另一组则是吃东西后分泌较少的胰岛素。在每组中，都有一半人食用低脂肪食物，另一半食用低血糖负荷的食物。平均而言，胰岛素分泌水平较低的这一组成员在两种节食方式下取得的成绩相同，均在前6个月中减重近10磅，但是在为期18个月的研究快要结束的时候，他们的体重又回升了将近5磅。而高胰岛素组在低脂计划中的表现并不理想，只减了大约4.5磅，并且在研究结束时体重回升了所减重量的一多半。最成功的是高胰岛素分泌、低血糖负荷饮食那一组，他们减掉了近13磅，而且没有反弹。

F What if your fat is caused not by diet or genes, but by germs — say, a virus? It sounds like a sci-fi horror movie, but research suggests some dimension of the obesity epidemic may be attributable to infection by common viruses, says Dhurandhar. The idea of “infectobesity” came to him 20 years ago when he was a young doctor treating obesity in Bombay. He discovered that a local avian virus, SMAM-1, caused chickens to die, **sickened** with organ damage but also, strangely, with lots of abdominal fat. In experiments, Dhurandhar found that SMAM-1-infected chickens became obese on the same diet as uninfected ones, which stayed svelte.

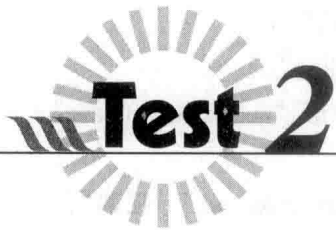
F 那么如果你的肥胖不是由饮食或基因导致的，而是由于细菌——比如病毒引起的呢？这听起来像科幻恐怖电影，但是研究表明，某些案例中的肥胖可能是由于感染了常见的病毒而引发的，杜源德哈说道。他在20年前产生了“感染性肥胖”这一想法。当时，他还是一个在孟买治疗肥胖的年轻医生。他发现当地的禽流感病毒SMAM-1会导致鸡的器官受损，并使其死亡。但奇怪的是，与此同时，鸡的腹部会出现大量脂肪。在实验中，杜源德哈发现，在同样的饮食下，感染SMAM-1病毒的鸡会变得肥胖，而未感染该病毒的鸡则能够保持正常的体重。

G He later moved to the U.S. and onto a bona fide human virus, adenovirus 36 (AD-36). In the lab, every species of animal Dhurandhar infected with the virus became obese — chickens got fat, mice got fat, even rhesus monkeys at the zoo that picked up the virus from the environment suddenly gained 15 percent of their body weight upon **exposure**. In his latest studies, Dhurandhar has isolated a gene that, when blocked from expressing itself, seems to turn off the virus's fattening power. Stem cells extracted from fat cells and then exposed to AD-36 reliably blossom into fat cells — but when stem cells are exposed to an AD-36 virus with the key gene **inhibited**, the stems cells don't differentiate. The gene appears to be necessary and sufficient to trigger AD-36-related obesity, and the goal is to use the research to create a sort of obesity **vaccine**.

G 他后来移居美国，并找到了一个真正的人类病毒，即腺病毒36（AD-36）。在实验室

里,每一种被杜源德哈感染上这种病毒的动物都长胖了,包括鸡、老鼠,甚至是动物园里的猕猴在不小心从环境中感染了该病毒后,体重也陡然增加了15%。在他最新的研究中,杜源德哈已经分离出了一种基因。这种基因在自我传递受阻时,似乎会关闭病毒的发胖力量。从脂肪细胞中提取的干细胞,在与AD-36接触后,肯定会发展成脂肪细胞——但是当关键基因被抑制时,干细胞在接触AD-36后则不会分化。该基因似乎是引发AD-36相关肥胖症的充分必要条件,而我们的目标就是利用这项研究来创造一种肥胖疫苗。





# Test 2

## Reading Passage 1. Andrea Palladio: Italian Architect

### 词汇详解

**settle** *v.* 定居；解决（写作中可用“settle in”表示“定居在……”。此外，形容词 settled 还有“尘埃落定”之意。）

**claim to fame** 一举出名的事，成名的一件事（习语。文章中作“名扬四海”之意。英文释义为“one thing that makes a person or place important, famous or interesting”，多为幽默用法。）

**architect** *n.* 建筑师，建筑设计者（听力常考词汇。注意与建筑学“architecture”区分开。形容词形式是 architectural “建筑学的，建筑上的”。）

**permanent** *adj.* 永久的，永恒的，不变的（permanent wave 表示“烫发”，经常在阅读中出现。）

**exhibition** *n.* 展览品，展览会（exhibit 作动词时，表示“展览，展出；表现”；作名词时，表示“展览品，陈列品”。常用短语 on exhibition, on display 都表示“展览”。）

**rustication** *n.* 乡村生活（其动词形式 rusticate 强调“下乡去”，其同义替换词为 country life, country living；一般表示村庄用“village”。）

**decoration** *n.* 装饰，装潢（动词形式为 decorate，强调“装修，装饰，布置”。“以……来装饰”即“decorate with”。）

**column** *n.* 圆柱，柱状物；纵队（文中表示建筑物的圆柱。）

**alternately** *adv.* 交替地，轮流地（词根 alternate 表示“交替的”；同义短语：take place by turn, in turn，一般用于轮流值日、值班，在作文中经常涉及。）

**proportion** *n.* 均匀，协调；部分；比例（作文高频词汇，比如：a large proportion of 大部分；direct proportion 成正比。）

**apprentice** *n.* 学徒 *v.* 当……学徒（“学徒期”的英文表达为“apprenticeship”。）

**renowned** *adj.* 有名望的，著名的，知名的（名词形式为 renown，表示“名誉，名望”。同义词有：famous, famed。）



**excel** *v.* 擅长, 胜过 (强调“在某方面优于或胜过其他人”。形容词形式为 *excellent*, 名词形式为 *excellence*。文中短语 “*excel at sth.*” 意为 “在某方面擅长”。)

**temple** *n.* 寺庙, 寺院, 神殿 (常见短语有 “*temple fair*”, 表示 “庙会”。)

**resemblance** *n.* 相似处, 相像处 (动词形式为 *resemble*。文中短语 “*bear a resemblance to...*” 强调 “与……相似、相像”。)

**reputation** *n.* 名望, 声誉 (“因某事出名” 的英文表达为 “*have a reputation for sth.*”。强调 “言行与名声相符” 时用 “*live up to one's reputation*” 表示。)

**nurture** *v.* 养育, 培养; 促进, 助长 (同义词有: *foster*, *cultivate*, 均表示 “培养, 养育”。本文中指 “助长, 促进”。即 “帕拉第奥写的文章助长了他的名誉”。)

**illustrate** *v.* (用事例、图表等) 阐明或说明; 举例说明; 为……做插图或图表 (同义词有: *exemplify*, *instance*。)

**no less** 仍然, 依旧, 照样 (注意与词组 “*no less than*” 区分开, 后者的意思是 “多达, 至少, 与……没差别”。)

**impact of...** ……的影响 (有关于影响的词语还有: *affect*, *reach*, *work on*; 写作文时经常使用。)

## 题目详解

### Questions 1-7

#### 解答

1. 根据顺序原则和关键词 “*building*”, “*exhibition*” 定位到原文第 2 段首句 “*The exhibition has the special advantage of being held in one of Palladio's buildings, Palazzo Barbaran da Porto.*” 这句话指明该展会在这栋建筑里举行, 而之后的内容则是对这栋建筑的装潢、结构进行描述, 并没有关于它是否翻新整修的内容。因此答案是 NOT GIVEN。
2. 根据顺序原则和建筑名 “*Palazzo Barbaran da Porto*” 定位到原文第 2 段中间。上题指出, 首句指明了该展会在这栋建筑 (*Palazzo Barbaran da Porto*) 中举行, 之后的句子则是对这栋建筑的描述, 即 “*Its bold façade is a mixture of rustication...a Palladian trademark.*” 原文中的 “*a Palladian trademark* (帕拉第奥的标志)” 与题干的 “*typically represents the Palladio's design* (帕拉第奥设计的典型代表)” 属同义替换。因此答案是 TRUE。
3. 根据顺序原则和关键词 “*Palladio's father*” 定位到原文第 3 段首句 “*Palladio's father was a miller who settled in Vicenza, where the young Andrea was apprenticed to a skilled stonemason.*” 由此可知, 帕拉第奥的父亲是一位磨坊主 (*miller*), 而不是建筑师 (*architect*)。因此答案是 FALSE。

4. 根据顺序原则及关键词“pay for”, “studies”定位到原文第3段末句“He was plainly intelligent, and lucky enough to come across a rich patron, Gian Giorgio Trissino, a landowner and scholar, who organised his education, taking him to Rome in the 1540s, where he studied...”这部分内容叙述了帕拉第奥幸运地遇见一位富有的资助者 (patron), 为他安排了学习, 并带他前往罗马。从这里可以看出, 文中并未提到帕拉第奥的家人是否愿意支付他的建筑学习费用。因此答案是 NOT GIVEN。
5. 根据顺序原则和建筑名“Ducal Palace”定位到原文第5段“He tried his hand at bridges — his unbuilt version of the Rialto Bridge was decorated with the large pediment and columns of a temple — and, after a fire at the Ducal Palace, he offered an alternative design which bears an uncanny resemblance to the Banqueting House in Whitehall in London. Since it was designed by Inigo Jones, Palladio’s first foreign disciple, this is not as surprising as it sounds.”由此可知, “English building( Banqueting House)”是他(Palladio)的徒弟 (disciple), 即 Inigo Jones 设计建造的, 所以有些相像, 题干中的“was based on an English building”是不对的。题目内容与原文不符, 因此答案是 FALSE。
6. 根据顺序原则和关键词“wealthy”, “poor”定位到原文第7段首句“Palladio’s work for rich landowners alienates unreconstructed critics on the Italian left, but among the papers in the show are designs for cheap housing in Venice.”原文中的“rich”被题干的“wealthy”替换, 而原文中的“cheap”则被题干的“poor”替换。该句子表明“帕拉第奥为富裕的地主设计作品使得意大利左翼顽固守旧的评论家与其疏远了, 但展会上的图纸中包含了他为威尼斯的廉价房做的设计。”这说明帕拉第奥同时为富裕的人 (wealthy people) 和贫穷的人 (poor people) 设计房屋。因此答案是 TRUE。
7. 根据顺序原则和关键词“paintings of people”定位到原文第8段首句“Vicenza’s show contains detailed models of the major buildings and is leavened by portraits of Palladio’s teachers and clients by Titian, Veronese and Tintoretto; the paintings of his Venetian buildings are all by Canaletto, no less.”该句子中的“portraits”意为“肖像画”, 题干中的“paintings of people”是该词的同义替换; 原文中的“Titian, Veronese and Tintoretto”则是三位著名画家 (famous artists)。因此答案是 TRUE。

### Questions 8-13

#### 解答

8. 根据顺序原则和关键词“job”, “before he became an architect”定位到原文第3段首句“Palladio’s father was a miller who settled in Vicenza, where the young Andrea was apprenticed to a skilled stonemason.”由此可知, “年轻时的安德烈亚在一位技艺精湛的石匠那儿当学徒”。因此答案是 stonemason。

9. 根据顺序原则和关键词“arranged”, “architectural studies”定位到原文第3段末句“He was plainly intelligent, and lucky enough to come across a rich patron, Gian Giorgio Trissino, a landowner and scholar, who organised his education, taking him to Rome in the 1540s, where he studied the masterpieces of...architecture...”题干中的“arranged”替换了原文中的“organised”, 而题干中的“studies”替换了原文中的“education”, 因此答案是 Gian Giorgio Trissino。
10. 根据顺序原则和关键词“first”, “non-Italian”定位到原文第5段末句“Since it was designed by Inigo Jones, Palladio’s first foreign disciple, this is not as surprising as it sounds.”题干的“non-Italian”替换了原文中的“foreign”, 因此答案是 Inigo Jones。
11. 根据顺序原则和关键词“Ancient Roman buildings”定位到原文第6段最后两句“What they show is how Palladio drew on the buildings of ancient Rome as models. The major theme of both his rural and urban building was temple architecture, with a strong pointed pediment supported by columns and approached by wide steps.”该句子说明“无论是乡村还是城市建筑, 帕拉第奥设计的主题都是神殿式建筑”, 而原文中的“buildings of ancient Rome”与题干中的“Ancient Roman buildings”为同义替换。所以对帕拉第奥来说, 对他影响最为深刻的古罗马建筑类型是神殿, 因此答案是 temple (architecture)。
12. 根据顺序原则和关键词“write”, “reputation”定位到原文第7段第2句“In the wider world, Palladio’s reputation has been nurtured by a text he wrote and illustrated, ‘Quattro Libri dell’Architettura’.”题干中的“strengthened (加强)”替换了原文中的“has been nurtured by (助长, 促进)”, 因此帕拉第奥写的著作是 Quattro Libri dell’Architettura。
13. 根据顺序原则和关键词“feeling”, “visitors”定位到原文第8段倒数第2句“...but the impact of harmonious lines and satisfying proportions is to impart in a viewer a feeling of benevolent calm.”题干中的“visitors”替换了原文中的“a viewer”, 因此答案是 benevolent calm。

## 参考译文

### Andrea Palladio: Italian Architect

#### 意大利建筑大师: 安德烈亚·帕拉第奥

*A new exhibition celebrates Palladio's architecture 500 years on*

帕拉第奥诞辰 500 周年纪念展——瞻仰大师的建筑作品

Vicenza is a pleasant, prosperous city in the Veneto, 60km west of Venice. Its grand families settled and farmed the area from the 16th century. But its principal **claim to fame** is Andrea

Palladio, who is such an influential **architect** that a neoclassical style is known as Palladian. The city is a **permanent exhibition** of some of his finest buildings, and as he was born — in Padua, to be precise — 500 years ago, the International Centre for the Study of Palladio's Architecture has an excellent excuse for mounting *la grande mostra*, the big show.

维琴察位于威尼斯西面 60 公里处, 是(意大利)威尼托大区一座舒适、繁荣的城市。从 16 世纪起, 一些大家族便在此定居、耕耘。然而, 这座城市名扬四海的主要原因却在于一位具有深远影响力的建筑大师——安德烈亚·帕拉第奥 (Andrea Palladio)。有一种新古典主义的建筑风格甚至以他的名字命名, 称为帕拉第奥式建筑风格。这座城市本身便是一个永久性展馆, 因为这里有几个他最为优秀的建筑作品, 而且正逢他在维琴察(确切地说是帕多瓦)诞辰 500 周年之际, 于是帕拉第奥建筑国际研究中心便有了一个绝佳的理由举行一场大型纪念展 (*la grande mostra*)。

The exhibition has the special advantage of being held in one of Palladio's buildings, Palazzo Barbaran da Porto. Its bold façade is a mixture of **rustication** and **decoration** set between two rows of elegant **columns**. On the second floor the pediments are **alternately** curved or pointed, a Palladian trademark. The harmonious **proportions** of the atrium at the entrance lead through to a dramatic interior of fine fireplaces and painted ceilings. Palladio's design is simple, clear and not over-crowded. The show has been organised on the same principles, according to Howard Burns, the architectural historian who co-curated it.

这场展览有一个得天独厚的优势, 那就是展会将在帕拉第奥的作品之一——巴巴拉波尔图宫中举办。它那宏伟的正门设置在两列高雅的圆柱之间, 混合了粗面石和精装修两种风格。位于二楼的三角楣饰, 时而呈圆弧状, 时而呈尖状——这是帕拉第奥式建筑的典型标志。穿过入口处比例和谐的中庭就来到引人注目的建筑内部, 这里有精致的壁炉以及精美的彩绘天花板。帕拉第奥的设计简洁明了、线条清晰, 同时又不会显得过分拥挤。建筑历史学家兼此次展会的组织者之一霍华德·伯恩斯 (Howard Burns) 表示, 此次展会也是本着同样的理念举办的。

Palladio's father was a miller who settled in Vicenza, where the young Andrea was **apprenticed** to a skilled stonemason. How did a humble miller's son become a world **renowned** architect? The answer in the exhibition is that, as a young man, Palladio **excelled** at carving decorative stonework on columns, doorways and fireplaces. He was plainly intelligent, and lucky enough to come across a rich patron, Gian Giorgio Trissino, a landowner and scholar, who organised his education, taking him to Rome in the 1540s, where he studied the masterpieces of classical Roman and Greek architecture and the work of other influential architects of the time, such as Donato Bramante and Raphael.

帕拉第奥的父亲是一位磨坊主，定居于维琴察。年少的安德烈亚在一位技艺精湛的石匠那儿当学徒。可是一个出身卑微的磨坊主的儿子又是如何成为名扬天下的建筑大师的呢？此次展会给出的答案是这样的：年轻的帕拉第奥十分擅长圆柱、门廊及壁炉上的装饰性石雕。安德烈亚非常聪慧，也极其幸运地遇到了一位富裕的资助者——吉安·希奥尔希奥·特里希诺（Gian Giorgio Trissino），他是一位地主兼学者。他为安德烈亚安排了学习，并在 16 世纪 40 年代将其带往罗马。安德烈亚在那里学习研究了许多古罗马和古希腊的伟大建筑，以及当时其他有影响力的建筑大师的作品，比如说多纳托·伯拉孟特（Donato Bramante）和拉斐尔（Raphael）。

Burns argues that social mobility was also important. Entrepreneurs, prosperous from agriculture in the Veneto, commissioned the promising local architect to design their country villas and their urban mansions. In Venice the aristocracy were anxious to co-opt talented artists, and Palladio was given the chance to design the buildings that have made him famous — the churches of San Giorgio Maggiore and the Redentore, both easy to admire because they can be seen from the city's historical centre across a stretch of water.

伯恩斯指出，社会流动性（社会阶层由低到高的转变）对安德烈亚的成功也是十分重要的。威尼托大区靠农业发家的企业家纷纷委托这位前途无量的当地建筑师为他们设计郊区别墅和城市宅第。在威尼斯，贵族们极其渴望笼络天资优越的艺术家，因此帕拉第奥得以有机会设计圣乔治·马焦雷教堂及雷登特教堂，正是这两座建筑使得他名声大噪。因为它们正好位于城市历史中心的河对岸，所以便于人们欣赏。

He tried his hand at bridges — his unbuilt version of the Rialto Bridge was decorated with the large pediment and columns of a **temple** — and, after a fire at the Ducal Palace, he offered an alternative design which bears an uncanny **resemblance** to the Banqueting House in Whitehall in London. Since it was designed by Inigo Jones, Palladio's first foreign disciple, this is not as surprising as it sounds.

安德烈亚·帕拉第奥曾尝试设计桥梁，比如里阿尔托桥，但他的设计方案最后未被采用。在该版本中，里阿尔托桥是以大三角形楣饰和神殿式圆柱为装潢。此外，在公爵宫遭遇了一场火灾之后，他也曾提供一份重建的设计方案，这份设计方案竟与伦敦白厅街国宴厅惊人的相似。不过鉴于国宴厅的设计师伊尼戈·琼斯（Inigo Jones）是帕拉第奥的第一位外国弟子，一切也就没那么令人讶异了。

Jones, who visited Italy in 1614, bought a trunk full of the master's architectural drawings; they passed through the hands of the Dukes of Burlington and Devonshire before settling at the Royal Institute of British Architects in 1894. Many are now on display at Palazzo Barbaran.

What they show is how Palladio drew on the buildings of ancient Rome as models. The major theme of both his rural and urban building was temple architecture, with a strong pointed pediment supported by columns and approached by wide steps.

琼斯于 1614 年游学至意大利时, 购买了一大箱子由帕拉第奥绘制的建筑图纸。这些图纸曾经过伯灵顿及德文郡公爵之手, 最终于 1894 年被安置在英国皇家建筑师学会。现今, 其中许多图纸均在巴巴拉波尔图宫公开展出。它们揭露了帕拉第奥是如何以古罗马建筑为模型进行创作的。无论是乡村还是城市建筑, 他的主题都是神殿式建筑——由许多圆柱支起一个巨大的三角楣饰, 门前是宽大的阶梯。

Palladio's work for rich landowners alienates unreconstructed critics on the Italian left, but among the papers in the show are designs for cheap housing in Venice. In the wider world, Palladio's **reputation** has been **nurtured** by a text he wrote and **illustrated**, "Quattro Libri dell'Architettura". His influence spread to St Petersburg and to Charlottesville in Virginia, where Thomas Jefferson commissioned a Palladian villa he called Monticello.

帕拉第奥为富裕的地主设计作品使得意大利左翼顽固守旧的评论家与其疏远了, 但展会上的图纸中其实有许多他为威尼斯的廉价房做的设计。此外, 帕拉第奥还凭借着自己撰写并配图的著作《建筑四书》而声名远扬。他的影响力甚至传到了圣彼得堡和弗吉尼亚州的夏洛茨维尔市——托马斯·杰斐逊 (Thomas Jefferson) 在那里建造了一座帕拉第奥式别墅, 他称之为蒙蒂塞洛。

Vicenza's show contains detailed models of the major buildings and is leavened by portraits of Palladio's teachers and clients by Titian, Veronese and Tintoretto; the paintings of his Venetian buildings are all by Canaletto, **no less**. This is an uncompromising exhibition; many of the drawings are small and faint, and there are no sideshows for children, but the **impact of** harmonious lines and satisfying proportions is to impart in a viewer a feeling of benevolent calm. Palladio is history's most therapeutic architect.

维琴察的展品包括了帕拉第奥主要建筑的精细模型, 并因他的老师及客户的肖像画而锦上添花, 这些画像由提香 (Titian)、委罗内塞 (Veronese) 和丁托列托 (Tintoretto) 所绘; 而卡纳莱托 (Canaletto) 为他在威尼斯的建筑作品绘制的全部画作也使展会增色不少。这是一场展会盛宴, 虽然许多图纸和画作看起来很小且十分模糊, 也没有为儿童准备助兴表演, 但那和谐线条及可心的比例给予观看者一种亲切平静的感官体验。帕拉第奥是历史上最具治愈性的建筑师。

"Palladio, 500 Anni: La Grande Mostra" is at Palazzo Barbaran da Porto, Vicenza, until January 6th 2009. The exhibition continues at the Royal Academy of Arts, London, from January 31st to

April 13th, and travels afterwards to Barcelona and Madrid.

“帕拉第奥诞辰 500 周年大型纪念展：La Grande Mostra”在维琴察巴巴拉波尔图宫举办，直至 2009 年 1 月 6 日。该纪念展将于 1 月 31 日至 4 月 13 日在伦敦的英国皇家艺术院继续举行，接着还会在巴塞罗那和马德里进行展出。

## Reading Passage 2. Corporate Social Responsibility

### 词汇详解

**sustainability** *n.* 可持续性，可维持性（形容词形式为 *sustainable*，强调“可持续的”。文中的词组“*sustainable development*”表示“可持续发展”。词根 *sustain* 表示“持续，维持”。形容词 *sustaining* 表示“持续的，维持的”。*self-sustaining* 表示“自谋生路的，自我维持的”。）

**compromise** *v.* 妥协，让步；达不到（标准）（文中该词跟在介词 *without* 后面，因此用了它的 *-ing* 形式。“*reach a compromise*”强调“达成了妥协”。）

**enliven** *v.* 使活泼，使有生气（文中“*enliven morale*”意为“使士气活跃，使斗志昂扬”。）

**corporation** *n.* 公司，企业，集团（同义词有：*firm*, *company*。在写作中，这些词可替换使用。）

**illusory** *adj.* 虚幻的，错觉的

**rival** *v.* 与……竞争，与……相匹敌 *n.* 竞争对手，竞争者（该词可用于写作 Task 2 中关于企业竞争的话题。动词同义词：*compete*。名词同义词：*competitor*, *opponent*。）

**evolve** *v.* 发展，改进（文中表示社会度量标准的发展。名词形式为 *evolution*，表示“进化，演变”。“进化成，发展成”的英文表达为“*evolve into*”；“从……进化而来，由……发展而来”的英文表达为“*evolve from*”。）

**mount** *v.* 增加；爬上，骑上；裱（文中此处意思是“证明石棉有害的证据在 50 多年的时间里缓慢累积”。文中意思的同义词有：*enhance*, *increase*。*mount up* 表示“增加，上升”。）

**liable** *adj.* 有责任的，对某事应负（法律）责任的；易于……的，倾向于……的（文中取用“对某事有责任的”意思，此处理解为：在石棉被证明有害之前，公司不需要对石棉可能导致的伤害负责。）

**measurable** *adj.* 可衡量的；重大的，显著的（动词形式为 *measure*，强调“测量；权衡”。）

**underperform** *v.* 表现不佳，业绩不好（*perform* 意为“表现；执行”。文中出现了“*worst performing*”一词，意为“表现最差的”。）

**in-kind** *adj.* 非现金的，实物的（文中 *in-kind donations* 意为“实物捐赠”，这个表达在大作文相关话题中可以使用。）

**constituency** *n.* 选区；选民，拥护者（文中此处取“选区”的意思，可理解为，企业这



么做改善了与当地政府和重要选区间的关系。候选者“笼络选民”的英文表达为“nurse a constituency”。)

**enrollment** *n.* 登记,注册;入伍;入学(文中此处与学校相关,故取“注册;入学”之意。动词形式为 *enrol*, 意为“登记,注册;入伍;入学”。“招生”的英文表述为“*enrol new students*”;“注册参加某活动”为“*enrol for*”。)

**curricula** *n.* 总课程,(一个学校的)全部课程(*curriculum* 的复数形式,文中此处指的是不同学校的有关 IT 的总课程,因此用复数。“核心课程”的英文表达为“*core curriculum*”。)

**screen out** 筛选,剔除

## 题目详解

### Questions 14-20

#### 思路

解题方法应该是通过对每位考生都能读懂的标题进行反向思维,然后和段落内容进行比较,排除作答。

#### i. *How CSR may help one business to expand*

反向思维词: CSR may help one business, expand

反向思维: 如果某段选此为标题,则该段落一般会出现 CSR,并且讲到 CSR 如何帮助企业发展。

#### ii. *CSR in many aspects of a company's business*

反向思维词: CSR, aspects, business

反向思维: 如果某段选此为标题,该段落会出现 CSR 对公司业务的各个方面的影响。

#### iii. *A CSR initiative without a financial gain*

反向思维词: CSR initiative, financial gain

反向思维: 如果某段选此为标题,该段落会出现与活动和 financial gain (经济获益)有关的信息,而且活动没有经济方面的获益。

#### iv. *Lack of action by the state of social issues*

反向思维: 这个标题的反向思维词并不明显,但如果某段选此为标题,该段落应该会讲述一些社会问题,而且是因为 lack of action 导致的,应该会具体举一个例子来证明,所以通读全文时,有举例子的地方,考生需要留意一下。

#### v. *Drives or pressures motivate companies to address CSR*



反向思维词：drives, pressures, motivate companies

反向思维：如果某段选此为标题，该段落会出现促使公司提出 CSR 的动力或压力的信息。

vi. *The past illustrates business are responsible for future outcomes*

反向思维词：past illustrates business, responsible, future outcomes

反向思维：如果某段选此为标题，该段落会出现对未来的结果负有责任的信息，推测应该会有过去的某些事情，然后现在或者将来如何，以及它们之间的联系句子。

vii. *Companies applying CSR should be selective*

反向思维词：applying CSR, selective

反向思维：如果考生通读全文，就知道整篇文章贯穿一种 CSR 的公司理念，所以如果某段选此为标题，应该会讲到企业在应用 CSR 的时候，要有选择地采取行动。

viii. *Reasons that business and society benefit each other*

反向思维词：business and society benefit each other

反向思维：如果某段选此为标题，该段落会讲到 business 和 society 之间的利益关系。

### 解答

14. **Paragraph A:** 该段首句提及 “Meeting the needs of the present without compromising the ability of future generations to meet their own needs.” 这里所说的 “既满足当代人的需求，而又不损害后代人满足其需求的能力” 的信息与题目中的 “pressures” 相对应，即人类可持续发展的要求促成了 CSR 理念的提出。此外，该段后面还提到 “现在政府和企业需要考虑它们的行动会产生的社会效应，所以 CSR 就成为需要优先考虑的事情”，这说明社会压力促使政府和企业注重其社会责任。紧接着后面又提到 CSR 理念对于企业的影响力有好处，这与题目中的 “Drives” 相对应。综上所述，无论是压力还是利益驱动力都促成了 CSR 这一理念的提出，这与题目中的 “Drives or pressures motivate companies to address CSR” 意思相符，所以，确定答案为 v。

15. **Paragraph B:** 该段的第 1 句话 “To advance CSR we must root it in a broad understanding of the interrelationship between a corporation and society” 提到了 “between a corporation and society”。那么根据反向思维词，很明显可以看出选项 viii 合适，但是该段前面还没提到 reason，所以我们还不能确定，接着往下看 “Successful corporations need a healthy society...At the same time, a healthy society needs successful companies.” 这些总结性的句子是对 reasons（即文中穿插的诸多例子）的高度概括，总结了 business 和 society 能够 benefit each other，它们相互依存。所以，确定正确答案为 viii。

16. **Paragraph C:** 该段举了一个关于石棉的例子，提到 “起初，基于当时的科学知识，

石棉被认为是安全的。但 50 多年，石棉有害的证据不断积累。那些没有前瞻性的企业则因为忽略了石棉的危害性而破产。”后面又提到“如今，企业不能够只满足于仅监控当下明显的社会影响。如果企业没有制订一个流程来仔细鉴别今后将会造成的社会影响，那么未来它极有可能会遭遇生存危机。”这表明企业过去以及当前的行为会对其未来产生影响，与 vi 的“The past illustrates business are responsible for future outcomes”意思相符，所以，正确答案为 vi。

17. **Paragraph D:** 考生很容易发现 D 段有一个 select，这与反向思维词 selective 相关，可以先确定为 vii 选项，本段第 1 句话“No business can solve all of society’s problems or bear the cost of doing so. Instead, each company must select issues that intersect with its particular business.”这两句话体现的是“没有企业可以解决所有的社会问题并承担解决它的费用。所以公司必须有所选择地解决与之业务相关的社会问题”。原文中还提到“The essential test that should guide CSR is not whether a cause is worthy but whether it presents an opportunity to create shared value...”，所以对公司来讲，采用 CSR 既要考虑社会问题，也要考虑企业本身的利益。这些内容与 vii 的意思相符，所以正确答案为 vii。
18. **Paragraph E:** 通读此段落，我们看到 GE（通用）公司做的捐赠活动及活动产生的社会影响，而末句“No matter how beneficial the program is, it remains incidental to the company’s business, and the direct effect on GE’s recruiting and retention is modest”却告诉我们这些活动对公司业务的影响很有限，可以理解为 GE 做的这些活动并没有多少经济方面（financial）的成效，所以根据反向思维，确定正确答案为 iii。
19. **Paragraph F:** 此段落讲述了微软与美国社区学院协会（AACC）合作的例子。本段前面提到“The shortage of information technology workers is a significant constraint on Microsoft’s growth”，即微软的信息技术员工短缺限制了公司的发展。后面则提到微软如何运用 CSR 理念帮助社区大学，最后不仅使许多社区受益，同时还对微软本身产生了直接或者潜在的重要影响，有利于微软的发展。根据反向思维，很容易匹配，正确答案为 i。
20. **Paragraph G:** 本段前面提到“The most strategic CSR occurs when a company adds a social dimension to its value proposition, making social impact integral to the overall strategy”，也就是说公司在其社会层面上宣传其价值主张，让社会影响成为总体战略的一部分，如此 CSR（企业社会责任）才最具战略意义。然后，紧接着又举了一个关于全食超市的例子来说明该超市在自然和环保方面所做的努力，例如门店的装修材料选择，货源的安全健康问题，店内的节能环保措施，交通工具的转变等。最后，本段还总结“In short, nearly every aspect of the company’s value chain reinforces the social dimensions of its value proposition...”，也就是说该公司价值链的几乎每一个环节都强化了其价值主张的社会影响。这段话反映了 CSR 在企业各个方面的情况，与 ii 中的“CSR in many aspects of a company’s business”意思相符，因此，正确答案为 ii。

**Questions 21-22****思路**

填词题属于送分题，只要找准定位词和关键词，就很容易找到答案。答案一般是原文中的原词。

**解答**

21. 根据顺序原则和题目中的“understanding of interdependence between business and society...education”定位到 B 段“Education, healthy care, and equal opportunity are essential to a productive workforce.”因此，正确答案为 equal opportunity。
22. 根据顺序原则定位到 B 段“Safe products and working conditions not only attract customers but lower the internal costs of accidents.”题目中的“reduce”与文章中“lower”为同义替换，修饰 internal costs。因此，正确答案为 internal costs。

**Questions 23-26****解答**

23. 根据细节信息“disposable waste”定位到 G 段“Spoiled produce and biodegradable waste are trucked to regional centers for composting.”G 段讲述的公司是“Whole Foods Market”，因此，答案为 C。
24. 根据细节信息“purchases as goods”定位到 G 段“The company’s sourcing emphasises purchases from local farmers through each store’s procurement process.”G 段讲述的公司是“Whole Foods Market”，因此，答案为 C。
25. 根据细节信息“Helping the undeveloped”定位到 E 段“A good example is General Electronics’s program to adopt underperforming public high schools near several of its major U.S. facilities”和“In an independent study of ten schools in the program between 1989 and 1999, nearly all showed significant improvement...”。原文中的“underperforming”与题目中的“undeveloped”相对应，而 E 段讲述的公司是“General Electronics”，因此，答案为 A。
26. 根据细节信息“latest information”定位到 F 段中间“IT curricula are not standardized, technology used in classrooms is often outdated, and there are no systematic professional development programs to keep faculty up to date. Microsoft’s \$50 million five-year initiative was aimed at all three problems.”题目中的“latest information”对应了微软公司提供的“IT curricula, technology 和 systematic professional development programs”，因此，答案为 B。

## 参考译文

## Corporate Social Responsibility

## 企业社会责任

*Broadly speaking, proponents of CSR have used four arguments to make their case: moral obligation, **sustainability**, license to operate, and reputation. The moral appeal — arguing that companies have a duty to be good citizens and to “do the right thing” — is prominent in the goal of Business for Social Responsibility, the leading nonprofit CSR business association in the United States. It asks that its members “achieve commercial success in ways that honour ethical values and respect people, communities, and the natural environment.” Sustainability emphasises environmental and community stewardship.*

广义地说，企业社会责任的倡导者们用四个论点来构成他们的理论：道义上的责任、经营的可持续性、经营许可证和声誉。道德诉求，要求企业有责任做好公民，并“做正确的事”，这是在美国具有领军地位的非营利性 CSR（企业社会责任）商业协会的重要目标。该协会要求其成员“用尊崇伦理价值和尊重人、社区和自然环境的方式来取得商业上的成功”。经营的可持续发展强调环境和社区管理责任。

A An excellent definition was developed in the 1980s by Norwegian Prime Minister Gro Harlem Brundtland and used by the World Business Council for Sustainable Development: “Meeting the needs of the present without **compromising** the ability of future generations to meet their own needs.” Nowadays, governments and companies need to account for the social consequences of their actions. As a result, corporate social responsibility (CSR) has become a priority for business leaders around the world. When a well-run business applies its vast resources and expertise to social problems that it understands and in which it has a stake, it can have a greater impact than any other organization. The notion of license to operate derives from the fact that every company needs tacit or explicit permission from governments, communities, and numerous other stakeholders to justify CSR initiatives to improve a company’s image, strengthen its brand, **enliven** morale and even raise the value of its stock.

A 在 20 世纪 80 年代，挪威总理格罗·哈莱姆·布伦特兰（Gro Harlem Brundtland）提出了关于可持续发展的最佳定义，并被世界可持续发展工商理事会所采纳，该定义的内容为“既满足当代人的需求，而又不损害后代人满足其需求的能力。”现在，政府和企业都需要为其行为所产生的社会效应负责。如此一来，企业社会责任（CSR）便成为全球商业领袖优先考虑的事情。当一个运营良好的企业将其充足的资源和专业经验用于处理其了解的且与其利益相关的社会问题时，该企业的影响力将超过其他

任何组织。经营许可证的概念起源于一个事实，那就是每一家企业的运营都需要得到来自政府、社区和许多其他股东的默许或明确授权，以证明其企业社会责任行为的合法性。这些行为包括改善企业形象、强化品牌、鼓舞员工士气，甚至还包括提高企业股票的价值。

B To advance CSR, we must root it in a broad understanding of the interrelationship between a **corporation** and society. Successful corporations need a healthy society. Education, health care, and equal opportunity are essential to a productive workforce. Safe products and working conditions not only attract customers but lower the internal costs of accidents. Efficient utilization of land, water, energy, and other natural resources makes business more productive. Good government, the rule of law, and property rights are essential for efficiency and innovation. Strong regulatory standards protect both consumers and competitive companies from exploitation. Ultimately, a healthy society creates expanding demand for business, as more human needs are met and aspirations grow. Any business that pursues its ends at the expense of the society in which it operates will find its success to be **illusory** and ultimately temporary. At the same time, a healthy society needs successful companies. No social program can **rival** the business sector when it comes to creating the jobs, wealth, and innovation that improve standards of living and social conditions over time.

B 为了推进 CSR（企业社会责任）理念的发展，我们必须根植于对企业和社会间相互关系的广泛理解之中。成功的企业需要一个健康的社会。教育、卫生保健和平等的机会对生产劳动力是至关重要的。安全产品和工作条件不仅能吸引顾客，也能降低事故引发的内部成本。高效利用土地、水、能源和其他自然资源能使商业经营更高产。良好的政府、法治和产权对于效率和创新是必不可少的。严格的监管标准能保护消费者和具有竞争力的公司远离剥削。最终，随着人们的需求不断被满足和期望的持续增长，一个健康的社会能为企业创造更多需求。任何企业，如果它对成功的追求是以牺牲社会利益为代价，那么最终它的成功将是虚幻与短暂的。与此同时，一个健康的社会需要成功的企业。当谈到提供就业机会、创造财富，以及能提高社会生活水平的创新发明时，没有任何社会领域可以与商业相媲美。

C A company's impact on society also changes over time, as social standards **evolve** and science progresses. Asbestos, now understood as a serious health risk, was thought to be safe in the early 1900s, given the scientific knowledge then available. Evidence of its risks gradually **mounted** for more than 50 years before any company was held **liable** for the harms it can cause. Many firms that failed to anticipate the consequences of this evolving body of research have been bankrupted by the results. No longer can companies be content

to monitor only the obvious social impacts of today. Without a careful process for identifying evolving social effects of tomorrow, firms may risk their very survival.

C 当社会标准不断发展,科学不断进步时,企业对社会的影响随着时间的推移也在改变。譬如石棉现在被认为是一种会严重威胁健康的物质,但在20世纪早期,根据当时所具备的科学知识,人们认为它是安全的。在50多年间,证明石棉危害性的证据不断积累,在这之前企业不需要对石棉可能导致的伤害承担责任。许多公司都因未能预料到这个新的研究结论而破产。如今,企业不能够只满足于仅监控当下明显的社会影响。如果企业没有精心制订一个流程来鉴别今后将会造成的社会影响,那么未来它极有可能会遭遇生存危机。

D No business can solve all of society's problems or bear the cost of doing so. Instead, each company must select issues that intersect with its particular business. Other social agendas are best left to those companies in other industries, NGOs, or government institutions that are better positioned to address them. The essential test that should guide CSR is not whether a cause is worthy but whether it presents an opportunity to create shared value — that is, a meaningful benefit for society that is also valuable to the business. Each company can identify the particular set of societal problems that it is best equipped to help resolve and from which it can gain the greatest competitive benefit.

D 没有任何一家企业可以解决所有的社会问题,或承担解决所有问题所需要的费用。相反,每个企业都必须选择改善那些与其特定行业相关的社会问题。其他社会问题最好还是留给那些其他相关行业的企业、非政府组织或能够更好地解决这些问题的政府机构。指导CSR(企业社会责任)的一个重要准则不在于一个行为是否值得做,而在于它是否能够提供一个创造共享价值的机会——也就是说,是否既能够有益于社会,同时对企业本身也有实际意义和好处。每个企业都能够挑选一些它最善于解决的社会问题进行处理,同时在解决问题的过程中获得最大的竞争利益。

E The best corporate citizenship initiatives involve far more than writing a check: They specify clear, **measurable** goals and track results over time. A good example is General Electronics's program to adopt **underperforming** public high schools near several of its major U.S. facilities. The company contributes between \$250,000 and \$1 million over a five-year period to each school and makes **in-kind** donations as well. GE managers and employees take an active role by working with school administrators to assess needs and mentor or tutor students. In an independent study of ten schools in the program between 1989 and 1999, nearly all showed significant improvement, while the graduation rate in four of the five worst performing schools doubled from an average of 30% to 60%. Effective



corporate citizenship initiatives such as this one create goodwill and improve relations with local governments and other important **constituencies**. What's more, GE's employees feel great pride in their participation. Their effect is inherently limited, however. No matter how beneficial the program is, it remains incidental to the company's business, and the direct effect on GE's recruiting and retention is modest.

- E** 最佳的企业公民计划远远不止于签写支票：它们指定明确的、可衡量的目标并随着时间的推移跟踪结果。通用电器（GE）资助升学率欠佳的公立高中的项目就是一个很好的例子，这些学校都在其美国主要公司驻地附近。该公司在五年内向每所学校捐赠了 25 万到 100 万美金，同时还对每所学校进行了实物捐赠。通用公司的管理者和员工积极地与校方合作，评估需求，并给予学生指导。在 1989 年至 1999 年之间，一个独立的研究对该项目的十所学校进行了调查，结果显示几乎所有的学校都有了明显的进步，而在表现最差的五所学校中，有四所学校的平均毕业率翻了一番，从 30% 增长到 60%。高效率的企业公民计划，正如通用（GE）的情况一样，能创建企业商誉，并改善企业与当地政府和重要选区的关系。更重要的是，通用的员工因他们自身的参与而感到自豪。然而，这些项目的影响是有内在局限性的。无论这个项目带来了多少社会效益，它对企业经营的影响都是非常微弱的，对通用在招募员工和留住员工方面的直接影响也是有限的。

- F** Microsoft's Working Connections partnership with the American Association of Community Colleges (AACC) is a good example of a shared-value opportunity arising from investments in context. The shortage of information technology workers is a significant constraint on Microsoft's growth; currently, there are more than 450,000 unfilled IT positions in the United States alone. Community colleges, with an **enrollment** of 11.6 million students, representing 45% of all U.S. undergraduates, could be a major solution. Microsoft recognizes, however, that community colleges face special challenges: IT **curricula** are not standardized, technology used in classrooms is often outdated, and there are no systematic professional development programs to keep faculty up to date. Microsoft's \$50 million five-year initiative was aimed at all three problems. In addition to contributing money and products, Microsoft sent employee volunteers to colleges to assess needs, contribute to curriculum development, and create faculty development institutes. Microsoft has achieved results that have benefited many communities while having a direct-and potentially significant-impact on the company.

- F** 微软与美国社区学院协会（AACC）的合作伙伴关系是在投资过程中获得共享价值机会的一个很好的例子。信息技术员工短缺是微软发展的一个重要制约因素；如今，仅在美国就有超过 45 万个信息技术岗位空缺。而社区大学招收的 1160 万名学生（占

美国大学生总人数的 45%) 可能是一个主要的解决方案。然而, 微软也意识到这些社区大学面临着一些特殊的挑战: 信息技术课程不够标准化, 课堂上使用的技术设备通常已经过时了, 而且学校没有系统的专业研发项目使科系与时俱进。微软投资 5000 万美元的五年计划就是针对这三个问题的。除了捐钱和物资之外, 微软还派遣了一部分员工志愿者到这些大学去评估需求, 帮助课程研发, 并建立科系发展学会。微软的这些行动已使许多社区受益, 同时对微软本身也有直接或者潜在的重要影响。

G At the heart of any strategy is a unique value proposition: a set of needs a company can meet for its chosen customers that others cannot. The most strategic CSR occurs when a company adds a social dimension to its value proposition, making social impact integral to the overall strategy. Consider Whole Foods Market, whose value proposition is to sell organic, natural, and healthy food products to customers who are passionate about food and the environment. The company's sourcing emphasises purchases from local farmers through each store's procurement process. Buyers **screen out** foods containing any of nearly 100 common ingredients that the company considers unhealthy or environmentally damaging. The same standards apply to products made internally. Whole Foods' commitment to natural and environmentally friendly operating practices extends well beyond sourcing. Stores are constructed using a minimum of virgin raw materials. Recently, the company purchased renewable wind energy credits equal to 100% of its electricity use in all of its stores and facilities, the only Fortune 500 company to offset its electricity consumption entirely. Spoiled produce and biodegradable waste are trucked to regional centers for composting. Whole Foods' vehicles are being converted to run on biofuels. Even the cleaning products used in its stores are environmentally friendly. And through its philanthropy, the company has created the Animal Compassion Foundation to develop more natural and humane ways of raising farm animals. In short, nearly every aspect of the company's value chain reinforces the social dimensions of its value proposition, distinguishing Whole Foods from its competitors.

G 任何战略的核心都有一个独特的价值主张, 即一个公司能满足其选定客户的需要, 而其他公司无法做到。当企业为其价值主张附加上一个社会维度, 使社会影响成为总体战略必不可少的一部分时, 其 CSR (企业社会责任) 才最具战略意义。以全食超市 (Whole Foods Market) 为例, 其价值主张是向热爱食品和环境的顾客出售有机的、天然的健康食品。公司的货源强调通过每个商店的采购流程从当地农民手中购买。采购人员要剔除那些含有该公司认为是不健康或损害环境的原料的食品, 这些原料有近 100 种。同样的标准也适用于内部产品的制作。全食所承诺的自然和环境友好型实践操作不仅仅体现在采购环节。它在建设门店时也会使用最少的原始材料。最近,



该公司购买的可再生风能额度相当于其所有商店和设施使用的全部电力，是唯一一家可以完全抵消其电力消耗的世界财富 500 强企业。（生产中）变质的产品和可由生物降解的垃圾会被卡车运送到制作堆肥的区域。全食的交通工具有被改装成使用生物燃料的。甚至其商店中所使用的清洁产品也是对环境无害的。并且，通过慈善事业，该公司建立了动物爱心基金会，以开发更自然和人道的方法来饲养农场动物。简而言之，该公司价值链的几乎每一个环节都强化了其价值主张的社会影响，使全食与其竞争对手明显区分开来。

### Reading Passage 3. The Significant Role of Mother Tongue in Education

#### 词汇详解

**consequence** *n.* 结果；重要性；推论（常见短语：economic consequence 经济后果，经济结果；direct consequence 直接结果；reaching consequence 意义深远的后果；as a consequence 因而，结果；in consequence of 因为……的缘故，由于；of consequence 重要的，重大的，有地位的，有声望的；of no consequence 不重要的，无足轻重的；take the consequences of 承担某事的后果。作“重要性”讲时，近义词：importance。）

**diversity** *n.* 多样性；差异（同义词：difference, multiplicity。在文章中“North America have experienced this diversity for years”表示北美这样的多样性已存在多年。）

**pupil** *n.* 学生（多指小学生）；【解剖】瞳孔；未成年人（常见表示学生的词语：student, minor。）

**policy** *n.* 政策，方针；保险单（cheese-paring policy 一毛不拔政策；monetary policy 货币政策；economic policy 经济政策；foreign policy 外交政策。）

**mainstream language** 主流语言（多数人的语言。）

**maximise** *v.* 取……最大值；达到最大值（词根 max 强调极值；常用表达：maximise window 将窗口放到最大；maximise utility 效用最大化。）

**linguistically** *adv.* 语言学方面（词根：linguis。衍生词：linguistic 语言的，语言学的；lingual 语言的，舌音的；linguist 语言学家；linguistics 语言学。）

**literacy** *n.* 读写能力；精通文学（词根：literate。变形词：literary 文学的，书面的，精通文学的；literate 受过教育的，精通文学的，学者；literature 文学，文献，文艺，著作。雅思阅读中常见短语：文化教育 literacy education；视觉认知能力 visual literacy。）

**bilingual** *adj.* 双语的 *n.* 会讲两种语言的人

**flexibility** *n.* 灵活性；弹性（来自形容词 flexible “灵活的”。在雅思听力中很容易考到，近义词：“elastic”。）

**predictor** *n.* 预报器；预言者（来自动词 predict “预言，预告”。）

**school language** 课堂用语（学校上课时使用的语言，文章中指该社会环境中的主流语。）

**transfer** *n.* 转让；转移；传递；过户 *v.* 转让；转学；换车；使转移；调任（现在电子银行常用短语 wire transfer 电汇，电子转帐，银行电汇，银行汇款；常用短语 data transfer 数据传送，资料存取，数据传输，数据转换。同义短语 make over, dispose of.）

**suspicious** *adj.* 可疑的；怀疑的；多疑的（常用短语 suspicious of 怀疑，困惑；extremely suspicious 杯弓蛇影。同义词：doubtful/questionable 可疑的，怀疑的，多疑的。）

**majority language** 主流语言（即多数人使用的语言，或称大语种。）

**home language** 家庭用语（一般指家庭内部成员之间交流的语言，文章中指母语。）

**implement** *v.* 实施，执行；实现，使生效 *n.* 工具，器具；手段（动词同义词：accomplish, perform, come true, fulfill, enforce. 名词同义词：instrument, facilities, vehicle, tool, engine.）

**minority language** 小语种（即少数人说的语言，文章中指母语。）

**trilingual** *adj.* 三种语言的；用三国语言的

**conversational** *adj.* 交谈的，会话的（名词形式 conversation 的同义替换词：dialog. 常见短语：in conversation 谈话，交谈。）

**concentration** *n.* 集中；专心；关注；浓度（“market concentration” 意为“市场集中度”。）

**adolescent** *adj.* 青春期的；未成熟的 *n.* 青少年（同义词：pubertal, hebetate；青少年 youths, teenager.）

**chasm** *n.* 峡谷；裂口；分歧；深坑（同义词：canyon 峡谷；pit 深坑；variance 分歧。）

**alienate** *v.* 使疏远，离间，孤绝（常见短语：alienate reunite 疏远；alienate from 使疏远，隔离。）

## 题目详解

### Questions 27-30

#### 解答

27. 该题仅凭 “in the second paragraph” 就可以定位到原文第 2 段，结合原文信息，排除选项。选项 A “Some present studies on children’s mother tongues are misleading.” 利用这里的 “Some present studies” 和 “misleading” 定位到原文，发现此段没有出现以上信息，因此 A 选项排除。选项 B “A culturally rich education programme benefits some children more than others.” 这里讲 “丰富的文化教育项目对有些儿童比对另一些儿童更有帮助”。通读此段，没有关于比较方面的内容，因此选项 B 排除。选项 C “Bilingual children can make a valuable contribution to the wealth of

a country.”原文该段的中间部分“To waste the resources of the nation by discouraging children from developing their mother tongues is quite simply unintelligent from the point of view of national self-interest.”这里讲到“对于国家利益而言，不鼓励儿童学习他们（本国）的语言，从而造成国家资源的浪费，是相当愚蠢的做法”。由此可以看出，作者认为儿童利用国家资源学习母语是明智的，是对国家利益有价值的，因此我们可以推断，C 选项也许是正确答案。选项 D “The law on mother tongue use at school should be strengthened.”本段没有提及有关于“law”的内容，因此 D 选项排除。至此，运用排除法可以知晓正确答案为 C。

28. 利用题目细节信息“Goethe said”，很容易定位到原文第 3 段的中间部分“More than 150 research studies conducted during the past 35 years strongly support what Goethe, the famous eighteenth-century German philosopher, once said: the person who knows only one language does not truly know that language.”这里讲到“歌德曾说的话：只会使用一种语言的人，并未真正了解这门语言”。作者为什么要引用这句话呢？在本段的开头，作者讲到“孩子们在学习两种及两种以上的语言时，他们将对语言有更深层的领悟”。本段的后半部分又说“调查研究指出，使用双语的孩子思维方面也更加灵活，可以使用两种不同的语言来处理信息”。那么引用歌德的话，明显就是为了加强作者的观点，使作者的论点更加充分。选项 A “to lend weight to his argument”讲的是“支持他的论点”，那么答案有可能是选项 A。选项 B “to contradict some research”说的是“反驳一些研究结果”，本段只提到一个论点，不涉及反驳别的内容，因此排除 B 选项。选项 C “to introduce a new concept”说的是“介绍一个新的概念”，本段未提及“new concept”的内容，因此排除 C 选项。选项 D “to update current thinking”说的是“更新现有的思想”，但原文没有谈到“to update”的信息，因此排除 D 选项。综上所述，正确答案为 A。
29. 该题目比较难定位，根据顺序原则，定位到原文第 4 段中间部分“When parents and other caregivers (e.g. grandparents) are able to spend time with their children and tell stories or discuss issues with them in a way that develops their mother tongue, children come to school well-prepared to learn the school language and succeed educationally.”这句话讲到“如果家长花时间陪在孩子身边，通过给孩子讲故事或与他们讨论问题的方式来提高他们的母语水平，那么当他们去学校时，就已经做好了学习教育用语的准备。”其实这道题目问的是“孩子在外语环境下牢记母语的好处”。选项 A “they can teach older family members what they learnt at school”讲的是“儿童可以教家里的老人他们在学校学习的内容”，但本段没有提及儿童教老人学习的相关内容，因此 A 选项排除。选项 B “they go on to do much better throughout their time at school”意为“在校期间，儿童可以学得更好”，此选项与原文内容和题目相符，因此正确答案可能为 B。选项 C “they can read stories about their cultural background”说的是“儿童可以阅读关于他

们文化背景的故事”，但该选项与问题无关，与原文内容也不相匹配，因此排除 C 选项。

选项 D “they develop stronger relationships with their family than with their peers” 讲的是“儿童与家人之间的关系超过与朋友之间的关系”，但该选项与题目无关，本段中也没有提及 “peers”，因此 D 选项排除。综上所述，正确答案为 B。

30. 利用题目细节信息 “suspicious” 定位到原文第 5 段首句 “Some educators and parents are suspicious of mother tongue-based teaching programs because they worry that they take time away from the majority language.” 这里明显讲到 “because”，与题目中的 “Why” 相对应。原句的大意为 “一些教育家及家长不愿意让孩子参加母语为基础的教学项目是因为担心浪费了学习主流语的时间”。选项 A “They worry that children will be slow to learn to read in either language” 说到 “家长担心儿童的双语学习进度缓慢”。而本段则可以理解为 “家长主要是担心浪费学习时间”，但没有提到学习进度的快慢，因此 A 选项排除。选项 B “They think that children will confuse words in the two languages” 讲的是 “家长认为孩子会混淆两种语言”，但本段中没有提及该内容，因此 B 选项排除。选项 C “They believe that the programmes will make children less interested in their lessons” 讲的是 “家长认为该项目会使孩子对他们的功课不感兴趣”，这与原文内容不相符，因此排除 C 选项。选项 D “They fear that the programmes will use up valuable time in the school day” 讲的是 “家长害怕该项目会浪费在学校学习的宝贵时间”，该选项与题目问题相对应，与原文内容相一致，因此正确答案为 D。

### Questions 31-35

#### 思路

这道题目属于比较难定位的 Summary，因为要先通读全文并且掌握每段大意才能在 Summary 浓缩的句子中填上合适的词。这就要求考生对全文内容有一定程度的掌握。解题思路为：通读全文，了解每段大意。题目通常为原文高度浓缩的句子，因此要先找到题目所对应的原文段落，再进行总结和概括，然后得到答案。

#### 解答

31. 根据题目细节信息 “bilingual children acquire” 和 “quickly” 可定位到原文第 7 段第 1 句话 “Many people marvel at how quickly bilingual children seem to ‘pick up’ conversational skills in the majority language at school...” 原文中的 “pick up” 形象地形容了双语儿童在学习语言技巧时是快速的。原文中的 “pick up” 与题目中的 “acquire” 为同义替换，因此该题目的正确答案为 I。
32. 根据顺序原则定位到原文第 7 段第 2 句 “However, educators are often much less aware of how quickly children can lose their ability to use their mother tongue, even in the home

context.”原句的大意为“然而，教育家往往忽略孩子们失去使用母语能力的速度，即使是在家庭语境之下。”其中“less aware”对应题目中的“less well understood”，而题目中的“mother tongue can disappear”对应原文中的“children can lose their ability to use their mother tongue”，而“how quickly”则表示母语能力失去的速度，对比着本段第1句中“how quickly... ‘pick up’”。此处可以理解为：学习新语言和忘记母语的速度是差不多的。而选项D的“rate”与原文内容相符，因此正确答案为D。

33. 根据顺序原则定位到原文第7段中部“The extent and rapidity of language loss will vary according to the concentration of families from a particular linguistic group in the neighborhood. Where the mother tongue is used extensively in the community, then language loss among young children will be less.”原句的大意为“语言丧失的程度和速度与家庭附近的某一特定语言区域的集中程度有关。如果在母语广泛使用的社区，那么儿童语言丧失的程度是较小的。”换句话说就是语言的丧失是与儿童的生活环境息息相关的。题目中的“same linguistic background”与原文中的“the concentration of families from a particular linguistic group”相对应，而原文中的“in the neighborhood”则可以与选项中的“area”相对应，因此正确答案为J。

34. 根据顺序原则定位到原文第7段中后部分“children can lose their ability to communicate in their mother tongue within 2-3 years of starting school. They may retain receptive skills in the language but they will use the majority language in speaking with their peers and siblings and in responding to their parents.”这里讲到“在语言社区并不集中在特定区域的居住区，儿童在开始上学的2-3年内就会丧失用母语沟通的能力。也许他们可以听懂母语，但他们将使用主流语与伙伴和家人交流沟通。”换句话说，如果儿童不常使用母语，那么他们就会渐渐失去母语能力，即使在家庭环境中，他们也会使用主流语与家人沟通。显而易见，根据原文内容，该空应填“family”，因此正确答案为F。

35. 利用题目细节信息“teenager children”定位到原文第7段末尾“By the time children become adolescents, the linguistic division between parents and children has become an emotional chasm. Pupils frequently become alienated from the cultures of both home and school with predictable results.”这句话的主要意思是“等孩子长成青少年后，他们会对两种文化都感到疏远。”原文中的“adolescents”与题目中的“teenager children”为同义替换。题目说的是“一个什么样的感觉围绕着青少年的整个生活”，根据原文内容我们可以了解，成为青少年后，他们会疏远（alienated）周围，会有一种孤单的情绪，感到与两种文化都格格不入。由此，我们要选出一个与原文中的“alienated”意义相近的词，即“dislocation”，因此正确答案为C。

## Questions 36-40

## 解答

36. 利用题目细节信息 “in Toronto” 定位到原文第 1 段第 2 句话 “To illustrate, in the city of Toronto in Canada, 58% of kindergarten pupils come from homes where English is not the usual language of communication.” 这里讲到 “加拿大多伦多市的幼儿园中, 58% 的学生来自英语为非母语的国家”。很明显, 原文与题目意思相符, 因此正确答案为 YES。
37. 利用题目细节信息 “host country” 定位到原文第 1 段中间部分 “they see few positive consequences for the host society and worry that this diversity threatens the identity of the host society.” 这里讲到 “他们担心这些多样性会对东道主社会的特性产生威胁”。但题目却说 “have an adverse effect on a child's mother tongue”, 且原文中没有提及相关信息, 因此正确答案为 NOT GIVEN。
38. 利用题目细节信息 “the Foyer” 定位到原文第 5 段末尾 “Within Europe, the Foyer program in Belgium, which develops children's speaking and literacy abilities in three languages...” 这里讲到 “在欧洲, 比利时的 ‘领航’ 语言项目旨在开发孩子的三种语言的口语及读写能力……”。题目却说 “The Foyer program is accepted by the French education system”, 题目中提到的国家为法国, 而原文所说的是比利时, 题目信息与原文信息不相符, 因此正确答案为 NO。
39. 利用题目细节信息 “tell the time” 定位到原文第 6 段第 3、4 句话 “Pupils who know how to tell the time in their mother tongue understand the concept of telling time. In order to tell time in the majority language they do not need to re-learn the concept.” 这里讲到 “小学生知道如何表述时间并理解时间的概念。当需要用主流语表达时间时, 他们不需要再重新学习这个概念。” 题目则说的是 “双语儿童比只会一种语言的儿童在学习时间概念方面更早一些。” 文中只提到了双语儿童学习时间概念, 但未提到 “monolingual children” 这个信息, 更没有进行比较, 因此正确答案为 NOT GIVEN。
40. 这一题比较难定位, 文中讲到双语课程是在第 3 段第 3 句话 “They have more practice in processing language, especially when they develop literacy in both”。这里讲 “学习双语课程的儿童在处理语言方面能够有更多的实践, 尤其是在同时提高两种语言的读写能力时”。文中的 “processing language” 和 “develop literacy in both” 与题目中的 “apply reading comprehension strategies acquired in one language when reading in the other” 相对应, 因此正确答案为 YES。



## 参考译文

## The Significant Role of Mother Tongue in Education

## 论母语在教育中的重要性

One **consequence** of population mobility is an increasing **diversity** within schools. To illustrate, in the city of Toronto in Canada, 58% of kindergarten **pupils** come from homes where English is not the usual language of communication. Schools in Europe and North America have experienced this diversity for years, and educational **policies** and practices vary widely between countries and even within countries. Some political parties and groups search for ways to solve the problem of diverse communities and their integration in schools and society. However, they see few positive consequences for the host society and worry that this diversity threatens the identity of the host society. Consequently, they promote unfortunate educational policies that will make the “problem” disappear. If students retain their culture and language, they are viewed as less capable of identifying with the mainstream culture and learning the **mainstream language** of the society.

人口流动的一个结果是使学校的文化日益丰富起来。比如，在加拿大多伦多市，幼儿园 58% 的学生来自母语为非英语的国家。在欧洲和北美的学校，这样的多样性已存在多年，而教育政策与教学实践在各国之间，甚至在一国之内都大相径庭。一些政党及组织在寻找方法解决群体多样化及使其融入校园和社会的问题。然而，他们在东道国中却看不到多少积极效果，与此同时，他们也担心这些多样性会对东道国的特性产生威胁。因此，他们大力提倡能够使这些所谓的“问题”消失的教育政策。如果学生保留自己的文化和语言，他们将被视为无法与社会中的主流文化相容，且在学习主流语言时逊色于他人。

The challenge for educators and policy-makers is to shape the evolution of national identity in such a way that the rights of all citizens (including school children) are respected, and the cultural, linguistic, and economic resources of the nation are **maximised**. To waste the resources of the nation by discouraging children from developing their mother tongues is quite simply unintelligent from the point of view of national self-interest. A first step in providing an appropriate education for culturally and **linguistically** diverse children is to examine what the existing research says about the role of children's mother tongues in their educational development.

教育家和政策制定者所面临的挑战是要形成民族文化认同的转变，并且在这样的转变中，所有公民（包括学龄儿童）的基本权利得到尊重，民族文化、语言和经济资源也被最大限度地利用起来。从国家私利的角度出发，由于不鼓励（移民）儿童学习他们的本国语言，从而造成国家（语言环境）资源浪费的做法是相当愚蠢的。首先要做的便是调查现状，以知晓母语在儿童教育发展中的扮演什么角色，然后给文化和语言上存在差异的儿童提供

合适的教育。

In fact, the research is very clear. When children continue to develop their abilities in two or more languages throughout their primary school, they gain a deeper understanding of language and how to use it effectively. They have more practice in processing language, especially when they develop **literacy** in both. More than 150 research studies conducted during the past 35 years strongly support what Goethe, the famous eighteenth-century German philosopher, once said: the person who knows only one language does not truly know that language. Research suggests that **bilingual** children may also develop more **flexibility** in their thinking as a result of processing information through two different languages.

事实上,目前的研究结果已经十分明确。当孩子们在读小学时持续学习两种及以上的语言,他们将会对语言本身及如何高效地使用这些语言有更深层的领悟。他们有更多的语言实践,尤其是在同时提高两种语言的读写能力的过程中。在过去的35年中,超过150项调查研究有力地支持了18世纪德国著名哲学家歌德(Goethe)曾说的话:只会使用一种语言的人,并未真正了解这门语言。调查研究指出,使用双语的孩子在思维方面也更加灵活,因为他们使用两种不同的语言来处理信息。

The level of development of children's mother tongue is a strong **predictor** of their second language development. Children who come to school with a solid foundation in their mother tongue develop stronger literacy abilities in the school language. When parents and other caregivers (e.g. grandparents) are able to spend time with their children and tell stories or discuss issues with them in a way that develops their mother tongue, children come to school well-prepared to learn the **school language** and succeed educationally. Children's knowledge and skills **transfer** across languages from the mother tongue to the school language. Transfer across languages can be two-way: both languages nurture each other when the educational environment permits children access to both languages.

儿童对母语的掌握程度能够有效地预测他们学习第二种语言时的进展。母语基础扎实的孩子在学习教学用语时,读写能力将会更强。如果父母或监护人(比如祖父母)能够花时间陪孩子,给他们讲故事或与他们讨论问题,以此提高孩子们的母语水平,那么他们来到学校后,便已做好了学习教学用语的准备,且能够学有所成。孩子的知识和技能能够从母语转化为教学用语。并且,这种转化可以是双向的:如果教育环境允许孩子们同时接触这两门语言,那么它们便会相辅相成。

Some educators and parents are **suspicious** of mother tongue-based teaching programs because they worry that they take time away from the **majority language**. For example, in a bilingual



program where 50% of the time is spent teaching through children's **home language** and 50% through the majority language, surely children won't progress as far in the latter? One of the most strongly established findings of educational research, however, is that well-implemented bilingual programs can promote literacy and subject-matter knowledge in a **minority language** without any negative effects on children's development in the majority language. Within Europe, the Foyer program in Belgium, which develops children's speaking and literacy abilities in three languages (their mother tongue, Dutch and French), most clearly illustrates the benefits of bilingual and **trilingual** education.

有些教育家和家长怀疑以母语为基础的教学课程，因为他们担心孩子没有时间学习主流语。例如，在双语教学项目中，一半时间使用儿童的母语进行教学，而另一半则通过主流语完成。儿童会不会在后者的学习上无法取得长足进步呢？然而，一个最权威的教育研究成果表明，有效地实施双语课程能够促进孩子的母语读写能力和学科知识的掌握，同时又不会对儿童学习主流语产生任何负面影响。在欧洲，比利时的“领航”语言项目旨在开发儿童三种语言（母语、荷兰语和法语）的口语及读写能力，它清楚地说明了双语和三语教育的好处。

It is easy to understand how this happens. When children are learning through a minority language, they are learning concepts and intellectual skills too. Pupils who know how to tell the time in their mother tongue understand the concept of telling time. In order to tell time in the majority language, they do not need to re-learn the concept. Similarly, at more advanced stages, there is transfer across languages in other skills such as knowing how to distinguish the main idea from the supporting details of a written passage or story, and distinguishing fact from opinion. Studies of secondary school pupils are providing interesting findings in this area, and it would be worth extending this research.

这种结果是如何产生的并不难理解。当孩子们学习母语时，他们也在学习概念和智力技能。那些知道如何用母语表述时间的小学生已经理解了时间的概念。当他们用主流语表达时间概念时，就不需要再重新学习这个概念了。同样，在更高阶段，语言之间还存在其他技能的转换，比如知道如何从文章或故事的具体细节中提炼出主体思想，并区分客观与主观。在这个领域，针对中学生的研究取得了有趣的成果，这项研究是值得推广的。

Many people marvel at how quickly bilingual children seem to “pick up” **conversational** skills in the majority language at school (although it takes much longer for them to catch up with native speakers in academic language skills). However, educators are often much less aware of how quickly children can lose their ability to use their mother tongue, even in the home context. The extent and rapidity of language loss will vary according to the **concentration** of families

from a particular linguistic group in the neighborhood. Where the mother tongue is used extensively in the community, then language loss among young children will be less. However, where language communities are not concentrated in particular neighborhoods, children can lose their ability to communicate in their mother tongue within 2-3 years of starting school. They may retain receptive skills in the language but they will use the majority language in speaking with their peers and siblings and in responding to their parents. By the time children become **adolescents**, the linguistic division between parents and children has become an emotional **chasm**. Pupils frequently become **alienated** from the cultures of both home and school with predictable results.

许多人惊奇地发现,在使用主流语的学校,双语儿童似乎可以很快地“学会”对话技巧(尽管他们需要更长的时间才能赶上本地人在学术语言方面的技能)。然而,教育家往往忽略孩子们失去使用母语能力的速度,即使是在家庭语境之下。语言能力丧失的程度和速度取决于周边环境中使用某一特定语言的家庭的集中度。在母语广泛使用的社区,儿童的语言丧失程度较轻。然而,在那些母语使用并不集中的社区,儿童在开始上学后的2-3年内将会丧失用母语沟通的能力。他们也许可以听懂母语,但他们会使用主流语与同龄人、兄弟姐妹和父母交流沟通。等到他们长成青少年的时候,父母和孩子之间的语言差异就会变成情感上的鸿沟。可以预见的是,这些孩子会经常对来自家庭和学校的两种文化感到疏远。

# Test 3

## Reading Passage 1. Voyage of Going: Beyond the Blue Line 2

### 词汇详解

**expedition** *n.* 远征, 探险队; 迅速 (例如 “Expedition 3” 表示 “远征 3 号”。常见短语有: use expedition 赶快办理, 从速行动; with expedition 很快地; go on a fishing expedition 摸底, 试探。有些国家以捕鱼为名潜入国外领海搜集情报, 该短语由此而来。近义词: trip, velocity, speed。由词根 exp- 组成的词还有: expansion, expense, experience, expiration, expired。在文章中, “expedition to the Pacific” 表示 “太平洋探险”。)

**reveal** *v.* 显示; 揭露; 泄露 *n.* 揭露; 门侧, 窗侧 (该词有多重意思。1. 揭露, 泄露: 启示超乎常人领导能力的真理或使某些隐藏的事或秘密为人所知。例如: “reveal a confidence” 意为 “泄露机密”; 2. 使显露, 显示; 3. 启示, 默示: 通过超自然或神学的方式为人所知。例如: “For the wrath of God is revealed from heaven” 意为 “上帝的愤怒是从天国显露的”; 4. 揭露被隐藏的事物: “He was glad it was to him she had revealed her secret” 意为 “他很高兴她把自己的秘密告诉了他”。近义词: disclose 侧重指揭露或泄露鲜为人知或保密的事; expose 多指揭露丑闻、坏人坏事或各种阴谋, 也可指某物暴露在外; uncover 主要指移去遮盖物, 让东西显露出来, 也可指揭露阴谋、秘密等。常用表达: to reveal 展示, 揭发, 披露; reveal identity 表露身份。在文章中的意思为 “发现”。)

**entire** *adj.* 全部的; 整体的 (其近义词 “whole” 意为 “整体的”, 有时用作名词, 亦表示 “整体”。另外, entire, whole, total, complete 这组词作为形容词时, 都是指 “全部的, 完整的”, 即 “丝毫没有失去、损坏或省略的”。entire 与 whole 在许多情况下可以通用。例如: The people's government has the support of the entire (whole) population. 人民政府得到全民的支持。文章中 “across the entire Pacific” 表示 “穿过整个太平洋”。)

**excavate** *v.* 挖掘; 开凿 (常见短语: cutting excavate 开凿; excavate fossick 采掘; excavate coal 采煤。同义词: dig, dig up, turn up, unearth。值得注意的是 “dig it” 不是 “挖它” 之意, 而是感叹 “欣赏一下吧”; “dig at someone” 意为 “挖苦某人”; “excavator” 意为 “挖掘机”。)

**stretch** *v.* 伸展, 张开 *adj.* 可伸缩的 *n.* 伸展, 延伸 (常见短语: at a stretch 一口气地, 不停顿地; at full stretch 非常紧张, 竭尽全力, 全力以赴。)

**square** *adj.* 平方的; 正方形的; 正直的 *v.* 使成方形; 与……一致 *n.* 平方; 广场; 正方形 *adv.* 成直角地 (Times Square 本意为“时报广场”, 常译为“时代广场”, 这里的“Times”是指时报的名字。其原名为“朗埃克广场”, 英文名为 Longacre Square, 又称为“世界的十字路口”。该广场是位于美国纽约市曼哈顿区第 42 大街、弗洛德街和第 7 路交叉的三角地带。时报广场得名于《纽约时报》早期在此设立的总部大楼, 是美国纽约市曼哈顿的一块街区, 中心位于西 42 街与百老汇大道交会处, 东西向分别至第六大道与第九大道, 南北向分别至西 39 街与西 52 街, 构成曼哈顿中城商业区的西部。在文章中, “millions of square miles” 意为“数百万平方英里”, square 在这里是“平方数”之意。)

**comparative** *adj.* 比较的; 相当的 *n.* 比较级; 对手 (跟这个词有关的 compare 是阅读中常见的词。compare 作动词时意为“相比, 比较”; 作名词时意为“比较”。常见短语有: beyond/past/without compare 无与伦比的, 无可比拟的, 无双的, 无敌的; compare favourably with 比……毫不逊色, 比得上; compare notes 对笔记, 交换意见; not to be compared to/with 不能与……相提并论, 与……无法相比, 比不上, 非常不同于……。在文章中, “comparative linguistics” 表示“比较语言学”。)

**peculiar** *adj.* 特殊的; 独特的; 奇怪的; 罕见的 *n.* 特权; 特有财产 (比较级 more peculiar, 最高级 most peculiar。作形容词时, 近义词有: specific, distinct, unique, strange, individual; 作名词时, 近义词有: franchise, special, privilege。)

**individual** *adj.* 个人的; 个别的; 独特的 *n.* 个人, 个体 (常见短语: individual event 单项; individual enterprise 私人企业; individual differences 个体差异; individual character 个性; individual income tax 个人所得税; individual freedom 个人自由。在阅读或写作中, 经常会用到这些搭配。文章中“The bones of at least 62 individuals”指的是“至少 62 个个体的遗骸”, 但根据上下文可译为“62 具遗骸”。)

**skeleton** *n.* 骨架; 骷髅; 纲要; 骨瘦如柴的人 *adj.* 骨骼的; 骨瘦如柴的; 概略的 (在考古类文章中, 经常会出现这个词, 常用的词组: skeleton diagram 轮廓图; a skeleton at the feast 直译是“餐桌上的骷髅”, 意译是指“让人在欢乐时不忘苦难的人或事物, 令人扫兴的人或事物”; be worn to a skeleton 瘦得皮包骨; family skeleton 或 skeleton in the cupboard/closet 家丑, 隐情; skeletons still rattle in the closet 过去的不良影响仍然存在。近义词: skull 骷髅, 一般指骷髅头。英国鬼才设计师亚历山大·麦昆 (Alexander McQueen) 的经典之作就是骷髅头系列 Skull Dials。)

**thrill** *n.* 激动; 震颤; 紧张 *v.* 使……紧张; 使……感到兴奋或激动。(口语中“thrills and spills”表达“事业等沉浮的感受, 成败之际的滋味”。作名词时, 近义词: intensity, stress, tension, warmth, excitement。同义短语: tie oneself up in knots 使……感到兴奋或激动。“thrill through”强调穿过。在文章中, “Archaeologists were also thrilled...”意为“考古学

家非常兴奋地……”)。

**conclusively** *adv.* 确定地, 决定性地 (形容词形式: *conclusive* 决定性的, 确实的, 确定性的。)

**intriguing** *adj.* 有趣的; 迷人的 (*intriguing scent* 迷人香气。在文章中, “a particularly intriguing clue” 表示 “非常引人注目的线索”。)

**migration** *n.* 迁移; 移民; 移动 (近义词: *removal, move, shift, motion, transplantation*。在文章中意为 “迁移”。)

**represent** *v.* 代表; 表现; 描绘 (相关短语: *represent general...* 代表一般的……; *business represent* 商务代表。)

**descendant** *adj.* 下降的; 祖传的 *n.* 后裔; 子孙 (作 “下降” 讲时, 近义词有: *falling, downward*; 作 “后裔; 子孙” 讲时, 近义词有: *child, seed*。在文章中, “closest descendants” 意为 “最近的后裔”。)

**canoe** *n.* 独木舟; 划艇 *v.* 乘独木舟 (口语中说 “paddle one's own canoe” 意为 “管好自己的事, 独立谋生, 自力更生”。)

**prevailing** *adj.* 流行的; 一般的, 最普通的; 占优势的; 盛行的 (在文章中, “the prevailing trade winds” 指的是 “盛行信风”。)

**reconnoiter** *v.* 侦察, 勘查, 探究 (近义词: *spy, scout, probe into*。在文章中, “into the unknown and reconnoiter” 翻译为 “在未知海域侦察”。)

**eternity** *n.* 来世, 来生; 不朽; 永世 (*through all eternity/eternities* 永远。作 “来世” 讲时, 近义词有: *life after death, afterlife*。*eternity* 是阅读与听力部分考古类的文章中经常会出现的词汇。)

**territory** *n.* 领土, 领域; 范围; 地域; 版图 (近义词: *domain, province, world, extent, boundary, region, kingdom*。)

## 题目详解

### Questions 1-7

#### 解答

1. 利用顺序原则及细节信息 “Cook”, “Hawaii” 和 “language” 定位到原文 A 段第 4 句 “Imagine Cook's surprise, then, when the natives of Hawaii came...and greeted him in a familiar tongue, one he had heard on virtually every mote of inhabited land he had visited.” 这句话的大意是 “想象一下, 库克在听到夏威夷土著人用他熟悉的语言与他问候时, 他该多么吃惊”。从 “surprise” 这个词可以看出, 库克船长以为夏威夷岛上的人会使用其他语言, 这与题目意思一致, 因此, 正确答案是 YES。
2. 根据顺序性原则定位于原文 A 段末句 “Marveling at the ubiquity of this Pacific lan-

guage and culture, he later wondered in his journal: ‘How shall we account for this Nation spreading itself so far over this vast ocean?’”这句话的大意是“库克船长对这种普遍存在的太平洋语言和文化感到吃惊,后来在日记中写下‘我们该如何解释这个民族将自己分散在如此辽阔的海洋的举措呢?’”原文并没有说他是否写了波利尼西亚文化的几个方面,原文未涉及题目信息,所以,正确答案是 NOT GIVEN。

3. 根据顺序原则定位于原文 C 段第 2 句及后面内容 “It came to light only by luck. A backhoe operator, digging up topsoil...scraped open a grave...”, 这里说到“这个墓地能被发现全靠运气,挖掘机司机在挖表层土的时候打开了一座坟墓”。所以斯普利格斯教授并没有带着他的队伍去埃法特寻找古人的墓地。因此,正确答案是 NO。
4. 根据顺序原则和关键词 “2000 miles” 定位到原文 D 段第 1 句。这一题的答案很容易被误判为 NO, 因为原文写的是 “a few centuries”, 而题目却是 “less than a century (少于一百年)”, 于是考生很可能会误判为 NO。其实,题目中只提到 “a journey of around 2000 miles”, 但并未特指是 D 段所说的那次航程。因此,正确答案是 NOT GIVEN。
5. 根据顺序原则定位到原文 D 段第 2 句 “Along the way they explored millions of square miles of unknown sea, discovering and colonizing scores of tropical islands never before seen by human eyes...”, 这句话的大意是“拉皮塔人发现并占据了許多人类未曾见过的岛屿”。题目意思与原文信息相符,因此,正确答案是 YES。
6. 原文对应信息出现在 E 段第 3 句 “And their peculiar style of pottery decoration, created by pressing a carved stamp into the clay...” 由此可见,拉皮塔人的陶器是有独特装饰的,而不是题目中所说的 “without any decoration”。因此,正确答案是 NO。
7. 根据顺序原则定位于原文 E 段最后三句 “Archaeologists were also thrilled to discover six complete Lapita pots...when you have human bones enshrined inside what is unmistakably a Lapita urn.” 整个段落并没有提及这些瓮是否曾经被拉皮塔人用来烹饪 (for cooking), 原文的其他段落也并未提及。因此,正确答案是 NOT GIVEN。

### Questions 8-10

#### 解答

8. 根据顺序原则及题目细节信息 “charcoal” 和 “did not come from that area” 定位到原文 F 段第 3 句 “the chemical makeup of the obsidian flakes littering the site indicates that the rock wasn’t local...”。原文中的 “wasn’t local” 与题目中的 “did not come from that area” 为同义替换,根据黑曜石碎片的化学成分得知这种石头不属于本地。因此,正确答案是 rock。
9. 根据顺序原则定位于原文 F 段第 4 句 “A particularly intriguing clue comes from chemi-

cal tests on the teeth of several skeletons.”原文中的“tests”与题目中的“examinations”属于同义替换，因此，正确答案是 teeth。

10. 根据顺序原则及题目细节信息“DNA”，“nearest”和“present-day”定位于原文 F 段第 5 句及后面内容“DNA teased from these ancient bones...This represents the best opportunity we've had yet...to find out who the Lapita actually were, where they came from, and who their closest descendants are today.”这段话的大意是“从这些古人遗骸中取得的 DNA 数据……这是我们迄今为止拥有的最好机会，可以弄明白拉皮塔人究竟是谁，他们来自哪里，以及如今与他们血缘关系最近的后裔又是谁”。原文中的“closest”与题目中的“nearest”为同义替换，原文中的“today”与题目中的“present-day”为同义替换。由此可知，正确答案是 descendants。

### Questions 11-13

#### 解答

11. 利用题目细节信息“Lapita travel”和“ocean”定位于原文 G 段第 4 句“All we can say for certain is that the Lapita had canoes that were capable of ocean voyages...”，题目问的是“拉皮塔人在海上使用的航海工具”，文章说的是“唯一能确定的是，拉皮塔人有能够在海洋中航行的独木舟”。因此，正确答案是 canoes。
12. 利用题目细节信息“In Irwin's view”定位于原文中出现 Irwin 的 G 和 H 两段。G 段主要说的是拉皮塔人的航行工具。于是，根据题目中的关键信息“bring them fast back to the base（将他们快速带回原处）”可定位到原文 H 段第 3 句“catch a swift ride home on the trade winds”。由此可知，他们是利用信风迅速回家的，因此，正确答案是 (prevailing) trade winds。
13. 根据顺序原则及题目细节信息“find land”定位到原文 H 段第 4 句“skilled seafarers would detect abundant leads to follow to land: seabirds and turtles, coconuts and...”。由于题目问的是“sea creatures（海洋动物）”，因此，正确答案是 seabirds and turtles。

### 参考译文

#### Voyage of Going: Beyond the Blue Line 2

##### 扬帆起航：越过蓝色地平线 2

- A One feels a certain sympathy for Captain James Cook on the day in 1778 that he “discovered” Hawaii. Then on his third **expedition** to the Pacific, the British navigator had explored scores of islands across the breadth of the sea, from lush New Zealand to the lonely wastes of Easter Island. This latest voyage had taken him thousands of miles north



from the Society Islands to an archipelago so remote that even the old Polynesians back on Tahiti knew nothing about it. Imagine Cook's surprise, then, when the natives of Hawaii came paddling out in their canoes and greeted him in a familiar tongue, one he had heard on virtually every mote of inhabited land he had visited. Marveling at the ubiquity of this Pacific language and culture, he later wondered in his journal: "How shall we account for this Nation spreading itself so far over this vast ocean?"

- A 提到詹姆斯·库克 (James Cook) 船长在 1778 年“发现”夏威夷岛的那一天,人们都会为他感到惋惜。在他第三次出海至太平洋探险时,这位英国航海家已经探索了从富饶的新西兰群岛到荒芜的复活岛等诸多岛屿。这最后一次的航行将他带到社会群岛以北几千英里之外的群岛处,那里十分偏僻,就连塔希提岛上的波利尼西亚人都对其一无所知。想象一下,当夏威夷岛上的土著人划着他们的独木舟过来,并用库克船长所熟悉的语言——那种几乎在他探索过的所有有人居住的岛上都使用的语言——和他问候时,他该多么惊讶。这种太平洋语言和文化的普遍性使库克船长感到讶异,他在之后的航海日志中写下了自己的不解:“我们该如何解释这个民族将自己分散在如此辽阔的海洋的举措呢?”

- B Answers have been slow in coming. But now a startling archaeological find on the island of Éfaté, in the Pacific nation of Vanuatu, has **revealed** an ancient seafaring people, the distant ancestors of today's Polynesians, taking their first steps into the unknown. The discoveries there have also opened a window into the shadowy world of those early voyagers. At the same time, other pieces of this human puzzle are turning up in unlikely places. Climate data gleaned from slow-growing corals around the Pacific and from sediments in alpine lakes in South America may help explain how, more than a thousand years later, a second wave of seafarers beat their way across the **entire** Pacific.

- B 答案总是姗姗来迟。但今天,在太平洋岛国瓦努阿图的埃法特岛上,一项惊人的考古学发现表明,一个古老的航海民族,即如今的波利尼西亚人的远祖,首先踏上了未知的旅途。这一发现同时也揭开了早期航海家的神秘面纱。与此同时,在一些出乎意料的地方,许多令人困惑的谜题碎片也相继浮出水面。例如,从太平洋地区缓慢生长的珊瑚以及南美高山湖泊的沉淀物中采集的气候数据也许能够解释 1,000 多年后的第二批航海家是如何穿过整个太平洋的。

- C "What we have is a first- or second-generation site containing the graves of some of the Pacific's first explorers," says Spriggs, professor of archaeology at the Australian National University and co-leader of an international team **excavating** the site. It came to light only by luck. A backhoe operator, digging up topsoil in the ground of a derelict coconut planta-



tion, scraped open a grave — the first of dozens in a burial ground some 3,000 years old. It is the oldest cemetery ever found in the Pacific islands, and it harbors the bones of an ancient people archaeologists call the Lapita, a label that derives from a beach in New Caledonia, where a landmark cache of their pottery was found in the 1950s. They were daring blue-water adventurers who roved the sea not just as explorers but also as pioneers, bringing along everything they would need to build new lives — their families and livestock, taro seedlings and stone tools.

- C “我们发现的是第一代或第二代居住者的遗址，这里埋葬着一些最早的太平洋探险者”，斯普利格斯（Spriggs）说道。他是澳大利亚国立大学的考古学教授，也是此项国际考古发掘队的负责人之一。这一遗址的发现全凭运气。一位锄耕机操作员在荒废的椰子园里挖土时，打开了一座墓穴，此后又有数十座墓穴被发现。这些墓穴有着 3,000 年的历史，是太平洋群岛迄今发现的最古老的墓群。其中埋葬的古人被考古学家称为拉皮塔人。这个名字源自于新喀里多尼亚的一处沙滩，因为 20 世纪 50 年代时，人们在该沙滩发现了拉皮塔人标志性的陶器窑藏。拉皮塔人是勇敢的海洋冒险家，他们既是探险者又是开拓者。他们漂泊于海上，携带着开创新生活所需的一切：家人、牲畜、芋头苗和石器。

- D Within the span of a few centuries the Lapita **stretched** the boundaries of their world from the jungle-clad volcanoes of Papua New Guinea to the loneliest coral outliers of Tonga, at least 2,000 miles eastward in the Pacific. Along the way they explored millions of **square** miles of unknown sea, discovering and colonizing scores of tropical islands never before seen by human eyes: Vanuatu, New Caledonia, Fiji, Samoa.

- D 在几个世纪内，拉皮塔人的活动范围从巴布亚新几内亚丛林覆盖的火山区延伸至汤加群岛最偏僻荒芜的珊瑚礁离岛，向东深入太平洋至少 2,000 英里。沿着这条航线，他们探索了数百万平方英里的未知海域，发现并定居在许多从未有人类涉足过的热带岛屿：瓦努阿图、新喀里多尼亚、斐济和萨摩亚。

- E What little is known or surmised about them has been pieced together from fragments of pottery, animal bones, obsidian flakes, and such oblique sources as **comparative** linguistics and geochemistry. Although their voyages can be traced back to the northern islands of Papua New Guinea, their language — variants of which are still spoken across the Pacific — came from Taiwan. And their **peculiar** style of pottery decoration, created by pressing a carved stamp into the clay, probably had its roots in the northern Philippines. With the discovery of the Lapita cemetery on Éfaté, the volume of data available to researchers has expanded dramatically. The bones of at least 62 **individuals** have been uncovered so far —

including old men, young women, even babies — and more **skeletons** are known to be in the ground. Archaeologists were also **thrilled** to discover six complete Lapita pots. It's an important find, Spriggs says, for it **conclusively** identifies the remains as Lapita. "It would be hard for anyone to argue that these aren't Lapita when you have human bones enshrined inside what is unmistakably a Lapita urn."

**E** 陶器碎片、动物骸骨、黑曜石碎片，以及比较语言学和地球化学等间接信息拼凑起来，就形成了我们对拉皮塔人仅有的了解和推测。尽管他们的航程能追溯至巴布亚新几内亚北部岛屿，他们的语言却来自台湾——太平洋诸岛居民至今仍在使用这种语言的变体。他们还有独特的陶器装饰风格，即将雕刻好的印章压入黏土。该风格或许可以在菲律宾北部找到根源。随着埃法特岛上拉皮塔墓穴的发现，可供研究者使用的数据材料大大增加。至今已发现的至少 62 具遗骸中，包括老年男子、年轻女子，甚至婴儿，埋藏地下的遗骸还有更多。此外，令考古学家兴奋的是，他们还发现了 6 个完好无损的拉皮塔陶瓮。斯普利格斯说，这是一项重大发现，因为它确切地证实了这些遗骸就是拉皮塔人。“当供奉遗骸的容器被确定是拉皮塔瓮时，你就很难说里面的遗骸不是拉皮塔人了。”

**F** Several lines of evidence also undergird Spriggs's conclusion that this was a community of pioneers making their first voyages into the remote reaches of Oceania. For one thing, the radiocarbon dating of bones and charcoal places them early in the Lapita expansion. For another, the chemical makeup of the obsidian flakes littering the site indicates that the rock wasn't local; instead it was imported from a large island in Papua New Guinea's Bismarck Archipelago, the springboard for the Lapita's thrust into the Pacific. A particularly **intriguing** clue comes from chemical tests on the teeth of several skeletons. DNA teased from these ancient bones may also help answer one of the most puzzling questions in Pacific anthropology: Did all Pacific islanders spring from one source or many? Was there only one outward **migration** from a single point in Asia, or several from different points? "This **represents** the best opportunity we've had yet," says Spriggs, "to find out who the Lapita actually were, where they came from, and who their closest **descendants** are today."

**F** 斯普利格斯认为，这个群落是由最早深入大洋洲的先民所建，而以下几条证据也证实了他的推论。首先，在对遗骸和木炭进行放射性碳素测定后，可以确定他们处于拉皮塔扩张早期。其次，遗址中散落的黑曜石的化学成分也表明这些石头不属于当地，而是来自巴布亚新几内亚俾斯麦群岛中的一个岛屿，那里是拉皮塔人深入太平洋的跳板。还有一条引人注目的线索则来自于对几具遗骸的牙齿的化学检测。从遗骸中取得的 DNA 数据也许将解开太平洋地区人类学研究中最令人困惑的问题之一：太平洋诸岛的岛民是从一个还是多个民族发展而来？是仅从亚洲某单一地点一次迁移来

的，还是从许多不同地方多次迁移而来？斯普利格斯说：“这是我们迄今为止所拥有的的最好机会，可以弄明白拉皮塔人究竟是谁，他们来自哪里，以及如今与他们血缘关系最近的后裔又是谁。”

G There is one stubborn question for which archaeology has yet to provide any answers: How did the Lapita accomplish the ancient equivalent of a moon landing, many times over? No one has found one of their **canoes** or any rigging, which could reveal how the canoes were sailed. Nor do the oral histories and traditions of later Polynesians offer any insights, for they segue into myth long before they reach as far back in time as the Lapita. “All we can say for certain is that the Lapita had canoes that were capable of ocean voyages, and they had the ability to sail them,” says Geoff Irwin, a professor of archaeology at the University of Auckland and an avid yachtsman. Those sailing skills, he says, were developed and passed down over thousands of years by earlier mariners who worked their way through the archipelagoes of the western Pacific, making short crossings to islands within sight of each other. Reaching Fiji, as they did a century or so later, meant crossing more than 500 miles of ocean, pressing on day after day into the great blue void of the Pacific. What gave them the courage to launch out on such a risky voyage?

G 还有一个难以攻克的、考古学家至今无法回答的问题是：当时拉皮塔人是如何一次次实现在如今看来难度等同于登月的远古航行的？人们至今都没有找到他们的独木舟或是能揭示他们航行方式的索具。从后来的波利尼西亚人的口述历史和传说中，我们也未能洞悉一二，因为这些口述历史和传说早在回溯到拉皮塔人之前，就演变成了神话。“我们现在唯一能确定的是，拉皮塔人有能够在海洋中航行的独木舟，并且他们懂得如何驾驶这些独木舟”，杰夫·欧文（Geoff Irwin）说道。他是奥克兰大学的考古学教授，同时也是一位游艇狂热爱好者。他说，拉皮塔人的那些航海技术经过早期水手数千年的发展和传承，这些水手在西太平洋的群岛中开拓航线，在遥遥相望的岛屿之间穿行。大约一百年之后，他们到达了斐济岛，这意味着他们跨越了 500 多英里的海洋，在广阔空荡的蓝色太平洋中日复一日地航行。究竟是什么给予他们如此巨大的勇气，进行这样一次冒险的航行呢？

H The Lapita's thrust into the Pacific was eastward, against the **prevailing** trade winds, Irwin notes. Those nagging headwinds, he argues, may have been the key to their success. “They could sail out for days into the unknown and **reconnoiter**, secure in the knowledge that if they didn't find anything, they could turn about and catch a swift ride home on the trade winds. It's what made the whole thing work.” Once out there, skilled seafarers would detect abundant leads to follow to land: seabirds and turtles, coconuts and twigs carried out to sea

by the tides, and the afternoon pileup of clouds on the horizon that often betokens an island in the distance. Some islands may have broadcast their presence with far less subtlety than a cloud bank. Some of the most violent eruptions anywhere on the planet during the past 10,000 years occurred in Melanesia, which sits nervously in one of the most explosive volcanic regions on Earth. Even less spectacular eruptions would have sent plumes of smoke billowing into the stratosphere and rained ash for hundreds of miles. It's possible that the Lapita saw these signs of distant islands and later sailed off in their direction, knowing they would find land. For returning explorers, successful or not, the geography of their own archipelagoes provided a safety net to keep them from overshooting their home ports and sailing off into **eternity**.

- H** 欧文说,拉皮塔人深入太平洋是向东而行,与盛行信风的风向相反。他认为,那烦人的逆风也许正是他们成功的关键。“他们可以连续数日深入未知海域侦察,因为他们知道即便什么都没有发现,也还可以调转船头,乘着信风快速回家。这就是整个过程得以实现的原因所在。”一旦到达未知海域,有经验的航海者会发现许多线索,引领自己返回陆地,例如:海鸟和海龟、被潮汐带入大海的椰子和小树枝,还有下午地平线上的积云,它们通常预示远处有岛屿。有些岛屿还会用比云更明显的方式来宣告自己的存在。过去一万年间,在地球上最猛烈的火山喷发中,有若干次发生在美拉尼西亚,它位于地球上火山喷发最活跃的地带之一。即使是较小规模的火山爆发也能将滚滚浓烟喷至同温层,并导致数百英里内火山灰如密雨洒落。拉皮塔人可能看到了这些遥远岛屿所传来的迹象,因此便朝着这些方向航行。对于返航的探险者来说,无论探险成功与否,自己生存的群岛的地理条件都提供了一张安全网,使他们不至于与故乡港湾擦身而过,永远漂泊。

- I** However they did it, the Lapita spread themselves a third of the way across the Pacific, then called it quits for reasons known only to them. Ahead lay the vast emptiness of the central Pacific, and perhaps they were too thinly stretched to venture farther. They probably never numbered more than a few thousand in total, and in their rapid migration eastward they encountered hundreds of islands — more than 300 in Fiji alone. Still, more than a millennium would pass before the Lapita's descendants, a people we now call the Polynesians, struck out in search of new **territory**.

- I** 无论他们是如何做到的,在拉皮塔人的扩张达到太平洋海域的三分之一后,远征便由于不明原因戛然而止。前方是空旷浩淼的中太平洋,也许他们散布得过于稀疏,因此无力再次远征。他们的人口总数或许从未超过几千人,而在快速朝东迁移的过程中,他们却遇见了数以百计的岛屿,仅斐济群岛就有超过 300 座岛屿。尽管如此,1,000 多年后,拉皮塔人的后裔,也就是如今的波利尼西亚人,才开始起航探索新天地。

## Reading Passage 2. Does IQ Test Prove Creativity?

### 词汇详解

**aesthetic** *adj.* 美的；美学的；审美的，具有审美趣味的（词根为 *aesthete*。衍生词有：*aesthetical* 审美的，美学的；*aesthetically* 审美地，美学观点上地；*aesthetics* 美学；*aesthetician* 审美学家。常见短语：*aesthetic design* 美学设计。）

**recombine** *v.* 重组（同义词及短语：*shake up*, *retool*, *reform*。）

**lateral** *adj.* 侧面的，横向的 *n.* 侧部（衍生词有：*laterally* 旁边地；*laterality* 偏重；*lateralisation* 偏侧优势；*lateralise* 使向侧面。常见短语：*lateral bending* 横向弯曲；*lateral root* 侧根。）

**divergent** *adj.* 相异的，分歧的；散开的（常用短语：*divergent thinking* 发散性思维。）

**mechanism** *n.* 机制；原理，途径；进程；机械装置；技巧（近义词：*theory*, *element*, *technique*, *skill*, *machinery*。）

**stimuli** *n.* 刺激；刺激物（复数形式为 *stimulus*。常见短语：*economic stimulus* 经济刺激；*fiscal stimulus* 财政刺激。）

**prerequisite** *n.* 先决条件 *adj.* 首要必备的（近义词：*prior condition*, *pre-condition*。）

**trait** *n.* 特性，特质，品质（近义词：*characteristic*, *specialty*。常见短语：*character trait* 性格特点。）

**inspiration** *n.* 灵感；鼓舞；吸气；妙计（近义词：*stimulation*, *afflatus*。）

**elaboration** *n.* 苦心经营；精巧计划；详细阐述（近义词：*ingenuity*。）

**dominant** *adj.* 显性的；占优势的；支配的，统治的 *n.* 显性（常见短语：*dominant strategy* 优势策略。近义词：*ruling*, *predominant*。）

**corral** *v.* 占有；围住；集结（在美国口语中经常出现，意为“抓，捕捉”，例如：*The police have corralled the thieves.* 警察已将盗贼抓获。）

**intuitively** *adv.* 本能地；直觉地（词根为 *intuit*，意为“凭直觉知道”。衍生词有：*intuitive* 直觉的，凭直觉获知的；*intuitionist* 直觉主义的，直觉论者；*intuition* 直觉，直觉力，直觉的知识；*intuitionism* 直观论，直觉说。）

**functional** *adj.* 功能的 *n.* 函数（词根为 *func*。衍生词有：*functionalist* 机能主义的，实用主义的；*functionally* 功能地，函数地，职务上地；*function* 功能，职责，运行，活动。常用短语：*functional food* 功能保健食品。）

**solitary** *adj.* 孤独的；独居的 *n.* 独居者；隐士（作形容词时，近义词有：*alone*, *neighbourless*；作名词时，近义词有：*hermit*, *anchorite*。）

**buoyant** *adj.* 轻快的；有浮力的；上涨的（近义词有：*flowing*, *rising*。常见短语：

buoyant force 浮力。)

**circular** *adj.* 循环的; 圆形的; 间接的 *n.* 通知, 传单 (作形容词时, 近义词有: indirect, cyclic, rounded; 作名词时, 近义词有: notice, advice, information。)

**neural** *adj.* 神经系统的; 神经中枢的; 背的 (近义词: nervous。)

**nut** *n.* 坚果; 螺母; 核心; 疯狂的人 (在本文中译成“疯子”。)

## 题目详解

### Questions 14-17

#### 解答

14. 根据顺序原则定位于第1段第3和第4句“Creative people are intelligent, in terms of IQ tests at least, but only averagely or just above. While it depends on the discipline, in general beyond a certain level IQ does not help boost creativity; it is necessary, but not sufficient to make someone creative.”题目中讲的是“guarantees better creative ability (保证高智商的人比一般智商的人有更强的创造力)”, 但原文说的是“it is necessary, but not sufficient to make someone creative (智力虽说是必要的, 但并不足以让人变得具有创造力)”。因此, 题目信息和原文内容相反, 正确答案为 FALSE。
15. 利用题目细节信息“language”和顺序原则发现原文中没有提及 language (或者 linguistic) 的内容, 因此正确答案为 NOT GIVEN。
16. 利用题目细节信息“resources”和“knowledge”定位于第2段第2句话“the ‘creative personality’ tends to place a high value on aesthetic qualities and to have broad interests, providing lots of resources to draw on and knowledge to recombine into novel solutions”。题目中的“A wider range of”与原文中的“lots of”为同义替换。题目中的“integrated...into”与原文中的“recombine into”相对应, 都是强调“大量吸取资源和广泛的知识以重新整合”。因此, 正确答案为 TRUE。
17. 利用题目细节信息“mental illness”定位于第4段倒数第1句“So for Peterson, mental illness is not a prerequisite for creativity, but it shares some cognitive traits.”这句话是说“精神疾病不是创造力的必要条件, 它只不过是与创造力共享了某些认知方面的特征罢了”。也就是说, 那些有创造力的人不一定就会得精神疾病, 这与题目信息相符, 因此正确答案为 TRUE。

### Questions 18-22

#### 解答

18. 利用题目细节信息“negative mood”定位于第3段后半部分“But she also suggests

that a change of mood state might be the key to triggering a creative event, rather than the negative mood itself.”题目中的“creative thinking”与原文中的“creative event”相对应。原文中的“the key to triggering”与题目中的“important factor of inducing”为同义替换，原文中的“she”指代本段前面的“Psychiatrist Jamison”。因此，正确答案为 A。

19. 利用题目细节信息“positive moods”和“creativity in organisations”定位到第 7 段倒数第 2 句“Amabile found that positive moods relate positively to creativity in organisations, and that the relationship is a simple linear one”，因此，正确答案为 E。
20. 利用题目细节信息“relationship”，“trust”和“more creativity”定位到第 8 段第 2 句话“Vera John-Steiner of the University of New Mexico says that to be really creative you need strong social networks and trusting relationships, not just active neural networks.”题目中的“Good interpersonal relationship and trust”与原文中的“strong social networks and trusting relationships”相对应，即“良好的人际关系与信任”。因此，正确答案为 F。
21. 利用题目细节信息“different kinds of thinking”定位于第 5 段倒数第 2 句“Creativity requires different kinds of thinking. Very creative people move between these states intuitively.”题目中的“demands”与原文中的“requires”为同义替换，题目中的“easily change among different kinds of thinking(可以自由地来回转换思维)”与原文中的“move between these states intuitively”相对应。再往前找到这个观点的持有者 Guy Claxton，故正确答案为 C。
22. 该题目的信息出现在第 6 段末句“The test also shows that the more we try and are stretched, the more creative our minds can be.”原文中的“stretched”与题目中的“upgraded”相对应，本段主要说的是 Paul Howard-Jones 的发现，因此，正确答案为 D。

### Questions 23-26

#### 解答

23. 利用题目细节信息“In 1978”以及“records of the pattern of brain waves as people made up stories by applying a system”定位于第 5 段第 3 句话“Back in 1978, he used a network of scalp electrodes to record an electroencephalogram, a record of the pattern of brain waves, as people made up stories. (1978 年，他用头皮电极网记录了一幅脑电图，内容是人们编故事时的脑电波模式。)”题目中的“applying”与原文中的“used”相对应，因此，正确答案为 scalp electrodes。
24. 利用顺序原则定位于第 5 段第 4 句话“Creativity has two stages: inspiration and elaboration.”原文中的“two stages”与题目中的“two phases”为同义替换，表示创造力的两个阶段：灵感阶段与精心策划阶段。因此，正确答案为 inspiration and elaboration。
25. 利用题目细节信息“the brain became busier, revealing increased cortical arousal”定



位于第5段第8句话“However, when these quiet-minded people were asked to work on their stories, the alpha wave activity dropped off and the brain became busier, revealing increased cortical arousal, more corralling of activity and more organised thinking.”题目中的“went down”与原文中的“dropped off”为同义替换,题干中的“when these people who are in a laidback state were required to produce their stories”与原文中的“However, when these quiet-minded people were asked to work on their stories”相对应,正确答案为 alpha wave activity。

26. 利用题目细节信息“in brain activity between the two stages, produced storylines”定位于第5段第9句话“Strikingly, it was the people who showed the biggest difference in brain activity between the inspiration and development stages who produced the most creative storylines.”题目中的“greatest”与原文中“biggest”相对应,因此正确答案为 difference。

## 参考译文

### Does IQ Test Prove Creativity?

#### 智商测试能证明创造力吗?

*Everyone has creativity, some a lot more than others. The development of humans, and possibly the universe, depends on it. Yet creativity is an elusive creature. What do we mean by it? What is going on in our brains when ideas form? Does it feel the same for artists and scientists? We asked writers and neuroscientists, pop stars and AI gurus to try to deconstruct the creative process — and learn how we can all ignite the spark within.*

每个人都有创造力,而有些人的创造力会优于他人。人类的发展,也许乃至宇宙的发展,正取决于此。但是创造力是一种令人难以琢磨的存在。为什么这么说呢?当灵光一闪的时候,我们的脑中到底是一个怎样的状态呢?那一刻,我们和艺术家或科学家的感受一样吗?我们请教了作家、神经科学家、明星和人工智能专家,试图去解析创造的过程,并了解我们是如何在大脑中激起创造的火花的。

In the early 1970s, creativity was still seen as a type of intelligence. But when more subtle tests of IQ and creative skills were developed in the 1970s, particularly by the father of creativity testing, Paul Torrance, it became clear that the link was not so simple. Creative people are intelligent, in terms of IQ tests at least, but only averagely or just above. While it depends on the discipline, in general beyond a certain level IQ does not help boost creativity; it is necessary, but not sufficient to make someone creative.

在20世纪70年代早期,创造力依然被看成是一种智力。但随着20世纪70年代更精妙



的智商测试和创造技能的发展,特别是“创造力之父”保罗·托伦斯(Paul Torrance)的贡献,我们逐渐清楚原来创造力与智商之间的联系并非如此简单。拥有创造力的人是聪明的,至少按照智商测试的标准来说是这样的,但他们也只是处于平均水平或略高于平均的智力水平。尽管创造力依赖于智力,但通常而言超越一定水平的智商并不能帮助提升创造力。智商是必要的,但并不足以使人们具有创造力。

Because of the difficulty of studying the actual process, most early attempts to study creativity concentrated on personality. According to creativity specialist Mark Runco of California State University, Fullerton, the “creative personality” tends to place a high value on **aesthetic** qualities and to have broad interests, providing lots of resources to draw on and knowledge to **recombine** into novel solutions. “Creatives” have an attraction to complexity and an ability to handle conflict. They are also usually highly self-motivated, perhaps even a little obsessive.

由于研究创造的实际过程存在很多困难,早期对于创造力的研究大部分都集中于个性方面的研究。根据美国加州大学富勒顿分校的创造力研究专家马克·鲁科(Mark Runco)的观点,“富有创造力的个性”倾向于重视审美特质并同时拥有广泛的兴趣,从而提供了大量可汲取的资源 and 广泛的知识以重新整合,创造新的解决办法。富有创造力的人易被复杂的事物吸引,也有能力处理矛盾和冲突。他们通常极有上进心,甚至可能有一点强迫症。

But there may be a price to pay for having a creative personality. For centuries, a link has been made between creativity and mental illness. Psychiatrist Jamison of Johns Hopkins University in Baltimore, Maryland, found that established artists are significantly more likely to have mood disorders. But she also suggests that a change of mood state might be the key to triggering a creative event, rather than the negative mood itself. Intelligence can help channel this thought style into great creativity, but when combined with emotional problems, **lateral, divergent** or open thinking can lead to mental illness instead.

但是拥有创造力的特质可能要付出代价。数百年来,人们一直都把创造力和精神疾病联系在一起。美国马里兰州巴尔的摩市约翰斯霍普金斯大学的精神病学家嘉米森(Jamison)发现,知名的艺术家明显更有可能产生情绪障碍。但她也表示,情绪的变化(而非负面情绪本身)也许正是激发创造性活动的关键。智力可以引导这种思维方式转变为伟大的创造,但一旦出现情感问题,侧向的、发散的或者开放式的思维则都可能导致精神疾病。

Jordan Peterson, a psychologist at the University of Toronto, Canada, believes he has identified a **mechanism** that could help explain this. He says that the brains of creative people seem

more open to incoming **stimuli** than less creative types. Our senses are continuously feeding a mass of information into our brains, which have to block or ignore most of it to save us from being snowed under. Peterson calls this process latent inhibition. The downside of extremely low latent inhibition may be a confused thought style that predisposes people to mental illness. So for Peterson, mental illness is not a **prerequisite** for creativity, but it shares some cognitive **traits**.

加拿大多伦多大学的心理学家乔丹·彼得森 (Jordan Peterson) 认为自己发现了一种可以对上述现象作出解释的机制。他认为富有创造性思维的大脑似乎比不富于创造性思维的大脑更容易受到外界的刺激。我们的感官无时无刻不在往大脑中输入大量的信息, 因此大脑也就不得不屏蔽或者忽略大部分的信息, 以避免我们被过多的信息淹没。彼得森将这个过程叫作“潜在抑制”。而极低的“潜在抑制”的负面影响在于其混乱的思维方式很容易导致人们患上精神疾病。按照彼得森的说法, 精神疾病不是创造力的必要条件, 它只不过是与创造力共享了某些认知方面的特征罢了。

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But what of the creative act itself? One of the first studies of the creative brain at work was by Colin Martindale, a psychologist from the University of Maine in Orono. Back in 1978, he used a network of scalp electrodes to record an electroencephalogram, a record of the pattern of brain waves, as people made up stories. Creativity has two stages: **inspiration** and **elaboration**, each characterised by very different states of mind. While people were dreaming up their stories, he found their brains were surprisingly quiet. The **dominant** activity was alpha waves, indicating a very low level of cortical arousal: a relaxed state, as though the conscious mind was quiet while the brain was making connections behind the scenes. It's the same sort of brain activity as in some stages of sleep, dreaming or rest, which could explain why sleep and relaxation can help people be creative. However, when these quiet-minded people were asked to work on their stories, the alpha wave activity dropped off and the brain became busier, revealing increased cortical arousal, more **corralling** of activity and more organised thinking. Strikingly, it was the people who showed the biggest difference in brain activity between the inspiration and development stages who produced the most creative storylines. Nothing in their background brain activity marked them as creative or uncreative. "It's as if the less creative person can't shift gear," says Guy Claxton, a psychologist at the University of Bristol, UK. "Creativity requires different kinds of thinking. Very creative people move between these states **intuitively**." Creativity, it seems, is about mental flexibility: perhaps not a two-step process, but a toggling between two states.

创造力本身是如何运作的呢? 缅因大学欧洛诺分校的心理学家科林·马丁代尔 (Colin Martindale) 对富有创造力的大脑的运行研究是该类型最早的研究之一。1978年, 他

用头皮电极网记录了一幅脑电图,内容是人们编故事时的脑电波模式。创造分为两个阶段:灵感阶段和细化阶段,每个阶段都以不同的意识状态为特征。他惊讶地发现,当人们构思故事的时候,大脑是极其安静的。此时主要的大脑活动是阿尔法电波,这表明大脑皮层的活跃度比较低,即处于一个比较放松的状态。就好像意识处于安静状态,而大脑则在幕后进行各种联想工作。这种状态与睡眠、做梦或者休息时的某些阶段的大脑活动相同,这也就解释了为什么睡眠和休息能够激发人们的创造力。但是,当这些意识状态平稳的受试者被要求继续细化自己的故事时,阿尔法电波便会减少,大脑会变得繁忙,这表明大脑皮层的活跃度开始增加,也意味着更多的大脑活动和更系统的思考。令人惊讶的是,在灵感和开发阶段,大脑活动表现出巨大差别的人往往能创作出最富创造性的故事情节。“后台”的大脑活动本身不能标示出他们有或没有创造力。“缺乏创造力的人似乎不太善于调档(转换思维),”英国布里斯托大学的心理学家盖伊·克萊斯顿(Guy Claxton)如是说道:“创造力需要不同类型的思维,而极具创造力的人则本能地在诸种状态间转换。”如此看来,创造力似乎与精神上的灵活多变有关。这种灵活性也许并不是体现为两个步骤的过程,而是表现为在两种状态间的来回切换。

Paul Howard-Jones, who works with Claxton at Bristol, believes he has found another aspect of creativity. He asked people to make up a story based on three words and scanned their brains using **functional** magnetic resonance imaging. In one trial, people were asked not to try too hard and just report the most obvious story suggested by the words. In another, they were asked to be inventive. He also varied the words so it was easier or harder to link them. As people tried harder and came up with more creative tales, there was a lot more activity in a particular pre-frontal brain region on the right-hand side. So part of creativity is a conscious process of evaluating and analysing ideas. The test also shows that the more we try and are stretched, the more creative our minds can be.

保罗·霍华德-琼斯(Paul Howard-Jones)是克萊斯顿在布里斯托大学的同事,他认为自己发现了创造力的另一方面。他要求受试者用三个词编造一个故事,并且用磁共振成像扫描了受试者的大脑。在一个试验中,他要求受试者不用太刻意,只需用这些词语最基本的意义来编故事。在另一个试验中,他则要求受试者要别出心裁。同时,他变换单词以使它们更容易或更难联系起来。当受试者越来越用心编出更有创意的故事时,其右侧脑前额叶区域的活动也愈加频繁。这也就是说,创造力在一定程度上是有意识地评估和分析构想。该测试也表明,我们越加努力去尝试,越加发散思维,我们大脑的创造力也就越强。

And creativity need not always be a **solitary**, tortured affair, according to Teresa Amabile of Harvard Business School. Though there is a slight association between solitary writing or paint-

ing and negative moods or emotional disturbances, scientific creativity and workplace creativity seem much more likely to occur when people are positive and **buoyant**. In a decade-long study of real businesses, to be published soon, Amabile found that positive moods relate positively to creativity in organisations, and that the relationship is a simple linear one. Creative thought also improves people's moods, her team found, so the process is **circular**.

哈佛商学院的迪妮莎·阿马比尔 (Teresa Amabile) 认为, 创造并不总是孤独的、令人受折磨的事情。尽管孤独地写作或绘画和负面情绪或者情绪失调之间有着些许联系, 但当人们心态积极、心情轻快时, 科学创新和工作创意更有可能发生。在一项长达十年的真实商业案例研究中 (其研究结果即将发表), 阿马比尔发现, 积极的心态与企业内部的创造力确有关系, 而且这种关系是简单的线性关系。此外, 阿马比尔的团队还发现, 创造性思维能改善人们的心情, 因此它也是一个循环的过程。

Another often forgotten aspect of creativity is social. Vera John-Steiner of the University of New Mexico says that to be really creative you need strong social networks and trusting relationships, not just active **neural** networks. One vital characteristic of a highly creative person, she says, is that they have at least one other person in their life who doesn't think they are completely **nuts**.

创造力常常被遗忘的另一方面是其社会性。新墨西哥大学的薇拉·约翰-斯坦纳 (Vera John-Steiner) 认为, 要想真正富有创造力, 你需要有一个强大的社交网络和值得信赖的人际关系, 而不仅仅只是活跃的神经网络。她还说, 极富创造力的人有一个非常重要的特征, 那就是在他们的生活中, 至少有一个人认为他们不是彻头彻尾的疯子。

### Reading Passage 3. Monkeys and Forests

#### 词汇详解

**gaze** *v.* 凝视, 注视 (与 look 或 see 不同, gaze 是指全神贯注地凝视着某一样东西或某个人。文中描述的是 “Ken Glander 凝视着树冠, 仔细观察雌猴的一举一动”。该词也有名词 “凝视、注视” 的意思。相关短语: gaze at 凝视某人或某物; in the public gaze 受到公众关注。)

**persist** *v.* 执意, 坚持; 始终; 固执; 存留 (persist 表示 “坚持” 的意思比较常见。文中的语境下, 则应解释为 “存留”, 可理解为 “吼猴在拉帕西菲卡庄园生存了下来, 繁衍生息”。形容词形式为 persistent, 表示 “坚持不懈的”, 在下文中出现。persist in doing sth. 坚持做某事。)

**flexible** *adj.* 柔韧的, 易弯曲的; 可变通的 (文中此处指的是 “吼猴的饮食习惯比较灵活

多变、不受约束，因此只要有五六棵树就足以让它们存活了”。名词形式为 *flexibility*，意为“灵活性，弹性”。)

**bind** *v.* 捆绑；装订；约束；结合 (*bind* 意思较广，常见于书的装订、人们受到的束缚等。文中此处与 *with* 组成的词组表示“与……相结合”。名词形式为 *binding*，表示“装订，捆绑”。相关短语：*bind up* 包扎，装订；*bind on* 用绳子等把某物捆绑起来。)

**render** *v.* 使得；提出；给予 (文中此处应理解为“致使，使得”，意为“那些与植物养分相结合的化学物质，使得吼猴们难以消化”。)

**indigestible** *adj.* 难以理解的，不易消化的 (该词词根为 *digest*，意为“消化，吸收”。加上后缀 *-ible* 后变为形容词形式，表示“易消化的，易吸收的”。再加上通常表示反义的前缀 *in-* 后，反转了意义，表示“不易消化的”。)

**detoxify** *v.* 使解毒，给某人 (或某物) 解毒 (文中此处可理解为“我们能够解除一种危险的毒素”。)

**exposure** *n.* 曝光，显露，泄露，揭发 (*exposure* 常见意思为“曝光，揭露”。而文中此处则应理解为“接触”，相关内容可解释为“植食性动物长期暴露于某种特定的植物毒素之下”，为便于理解，可意译为“植食性动物长期食用和接触某种特定的植物毒素”。)

**defuse** *v.* 缓和，平息，化解 (文中“*defuse the poison*”可理解为“抵御毒素”。名词形式为 *defusing*，表示“消除，拆除，减压”。)

**regenerating** *adj.* 再生的，重生的 (文中“*regenerating forests*”指的是“再生的树林”。动词形式为 *regenerate*，表示“使再生；更新；改革”。名词形式为 *regeneration*，意为“重生，再生；重建”。)

**population boom** 人口爆炸，人口激增 (*boom* 通常用作拟声词，表示“枪炮等的隆隆声”。在写作中常常可用于形容：人口快速增长 *population boom*；经济快速增长 *economic boom* 等。)

**resilient** *adj.* 有回弹力的，可迅速复原的，适应性强的 (文中此处应解释为“适应性强的”，可理解为“吼猴比卷尾猴和蜘蛛猴能更快速地适应环境”。动词形式为 *resile*，意为“恢复原状，弹回”。名词形式为 *resilience*，表示“恢复力，弹力”。)

**fragmented** *adj.* 片段的，分裂成碎片的 (文中此处应解释为“分散的，不在一起的”，此处内容可理解为“蜘蛛猴无法在分散的栖息地生活”。动词形式与名词形式同为 *fragment*，作名词时意为“碎片”，作动词时意为“使成碎片状”。)

**bear** *v.* 忍受，承受；生育 (孩子) (*bear* 是一个有多种意思的词，最常见的意思是“熊”，比如泰迪熊 *Teddy Bear*。动词形式常见的意思为“忍受，承受”。而文中此处的意思为“生育 (孩子)”。相关短语：*bear a child* 生孩子；*bear in mind* 记住。)

**persistent** *adj.* 坚持不懈的；持续的；固执的 (上文出现了动词形式 *persist*，意为“存留”。形容词常见的意思为“坚持不懈的”，文中此处应解释为“持续的”，可理解为“对森林的持续破坏”。)

**fell** *v.* 砍伐, 击倒 (文中根据语境应解释为“砍伐森林”。**fell** 同时还是 **fall** 的过去式, 注意根据语境以及语法结构区分意思。)

**shape** *v.* 形成, 塑造 (该词同时也可作名词, 意为“形状, 外形”, 比较常见。文中应理解为“持续被人类所塑造的地方”。相关短语: **in the shape of** 以……的形式。)

**thrive** *v.* 繁荣, 旺盛, 茁壮成长 (**thrive** 较常见的意思为“繁荣, 旺盛”。文中则是指“吼猴的茁壮成长”。相关短语: **thrive on** 因……而蓬勃发展。)

**hodgepodge** *n.* 混合物, 大杂烩 (字面意思为“把许多东西混杂在一起”, 文中解释为“混合物”, 相关内容可理解为“本土植物和外来植物发展成的混合林”。)

**exotic** *adj.* 异国的, 外来的, 非本地的 (文中指“外地引进的植物”, 即“外来植物”。)

**tolerate** *v.* 忍受, 容忍; 默许; 包容 (这个词表示“忍受某人或某物”时, 并不是指主动地欢迎、接纳。形容词形式为 **tolerant**, 表示“宽容的, 容忍的”。名词形式 **tolerance**, 意为“宽容, 容忍”。)

**disperse** *v.* 分散, 散发 (形容词形式为 **dispersed**, 意为“被分散的, 散布的”。名词形式为 **dispersion**, 表示“散布, 消散”。文中指“猴类将无花果树和其他遮荫树木的种子分散在各处”。)

**fertilize** *v.* 使多产, 使受精, 使肥沃 (文中此处应解释为“使肥沃”, 相关内容可理解为“猴类的粪便使土壤变得肥沃”。形容词形式为 **fertile**, 表示“肥沃的, 富饶的”。名词形式为 **fertility**, 意为“多产, 肥沃”。)

**associate with** 联合, 与……来往 (文中此处可解释为“与……联合”, 相关内容可理解为“他希望农民能够意识到与野生猴子‘合作’的好处”。)

## 题目详解

### Questions 27-32

#### 思路

这种题型适合通过题目信息进行反向思维, 然后和段落内容进行比较, 得出答案。

#### 解答

27. 根据反向思维信息“forest”和“reduction”推测, 原文对应段落中应该出现关于森林栖息地被破坏的内容, 可能会提到为什么被破坏, 是人为原因, 还是自然灾害。该题目的对应信息出现在原文段落 G 的第 2 句话“During the 1990s, about 1.1 million acres of Central American forest were felled yearly”。这里讲到“中美洲每年约有 110 万英亩的森林被砍伐”。题目中“reduction”与原文中的“felled”相对应, 因此正确答案为 G。



28. 根据反向思维信息 “other species...vanished” 推测, 原文对应段落中应该出现其他种类的猴子, 例如, 对几种猴子进行比较, 最后说由于某种原因导致其他种类的猴子消失等内容。该题目的对应信息出现在原文段落 A 的第 5、6 句话 “This howler belongs to a population that has lived for decades at Hacienda La Pacifica, a working cattle ranch in Guanacaste province. Other native primates — white-faced capuchin monkeys and spider monkeys — once were common in this area, too, but vanished after the pan-American Highway was built nearby in the 1950s.” 这里讲到 “这只吼猴来自拉帕西菲卡庄园。以前这里还有白面卷尾猴和蜘蛛猴, 但在 20 世纪 50 年代修建公路后就消失了”。原文中的 “Other native primates — white-faced capuchin monkeys and spider monkeys — once were common in this area, too, but vanished after the pan-American Highway was built nearby in the 1950s.” 对应题目中的 “other species...vanished”, 所以正确答案为 A。
29. 根据反向思维信息 “reason for howler monkeys to choose new leaves” 推测, 原文对应段落中应该出现吼猴吃哪种叶子以及为什么要吃新的叶子。该题目的对应信息出现在原文段落 C 的第 4 句话 “...are actually more howler friendly than those produced by the undisturbed, centuries-old trees that survive farther south, in the Amazon Basin”。这里讲到 “在拉帕西菲卡庄园生长的叶子, 实际上比那些静静地生长在亚马孙流域的百年古树的叶子更受吼猴的喜爱”。那么吼猴为什么喜欢呢? 在本段末句 “In younger forests, trees put most of their limited energy into growing wood, leaves and fruit, so they produce much lower levels of toxin than do well-established, old-growth trees”。这里的大意是讲 “因为这些树木相对于已成参天大树并生长很久的树木来说, 它们产生的毒素要少很多”。因此, 整段都在讲吼猴选择新叶子的前因后果, 所以正确答案为 C。
30. 根据反向思维信息 “diet and eating habits” 推测, 原文对应段落中应该出现描述吼猴饮食习惯的内容。该题目的对应信息出现在原文段落 B 第 3 句话 “Howlers can survive anywhere you have half a dozen trees, because their eating habits are so flexible”。原文这里描述 “吼猴能在任何生长着五六棵树的林地存活, 因为它们的饮食习惯很灵活”。综上所述, 正确答案为 B。
31. 根据反向思维信息 “asking farmers’ to change attitude toward wildlife” 推测, 原文对应段落中应该出现农民对野生动植物的一种态度的转变, 或者是意识的转变。该题目的对应信息出现在原文段落 H 末句 “He hopes that farmers will begin to see the advantages of associating with wild monkeys, which includes potential ecotourism projects”。这句话的大意是 “他希望农民能开始认识到与野生猴 ‘合作’ 的好处”。综上所述, 正确答案为 H。
32. 根据反向思维信息 “advantage of howler monkey’s flexibility” 和 “segmented” 推测, 原文对应段落中应该出现吼猴是如何在分散的栖息地生活的内容, 应该会有比较, 这样才能显出吼猴的优势。该题目的对应信息出现在原文段落 D 的后半部分

“Howlers are more resilient than capuchins and spider monkeys for several reasons...They can live within a small home range, as long as the trees have the right food for them. Spider monkeys, on the other hand, occupy a huge home range, so they can't make it in fragmented habitat”。这里讲“由于吼猴活动范围小，只要树木能够提供合适的食物即可。然而，蜘蛛猴则需要很大的活动范围，因此它们不能在分散的栖息地生活”。原文中的“Howlers are more resilient”对应题目中的“howler monkey's flexibility”，因此正确答案为 D。

### Questions 33-35

#### 解答

33. 利用细节信息“benefit the local region's agriculture”定位于原文段落 H 的第 1 句话“Estrada believes the monkeys bring underappreciated benefits to such farms”。这里提到猴子们对于农场是有帮助的，只是被低估了。我们需要找到匹配的地点，接着往下看“...howler monkeys live in shade coffee and cacao plantations in Nicaragua and Costa Rica as well as in Mexico”，这里讲到“吼猴生活在尼加拉瓜、哥斯达黎加以及墨西哥的咖啡树荫和可可种植园中”。可以看出这是一段承上启下的过渡内容，Mexico 是在上文中提到的，段落 G “He and his colleagues recently studied the ecology of a group of mantled howler monkeys that thrive in a habitat completely altered by humans: a cacao plantation in Tabasco, Mexico. Like many varieties of coffee, cacao plants need shade to grow, so 40 years ago the landowners planted fig...after nearby forests were cut”。这里讲“他和他的同事们对塔巴斯科州的可可种植园内吼猴大量繁殖的现象进行了研究。可可植物需要阴凉，因此 40 年前种植园主栽种了无花果树等。25 年前森林被砍伐之后，猴子迁移进去”。这样就出现两个地点：第一个是“Nicaragua and Costa Rica”，第二个是“Tabasco, Mexico”。但是第一个地点不在选项内，因此，正确答案为 C。
34. 利用细节信息“original home all three native monkeys”（这里的 home 译为“栖息地”）定位于原文段落 A 的第 5 句话“This howler belongs to a population that has lived for decades at Hacienda La Pacifica, a working cattle ranch in Guanacaste province”。这里的“Hacienda La Pacifica”指的就是“home”。该段落后面也提到了“Other native primates — white-faced capuchin monkeys and spider monkeys...”，与题目中的“three native monkeys”相对应，因此，正确答案为 A。
35. 利用细节信息“capuchin monkeys came to a better habitat”可以发现原文有多个段落都提及了卷尾猴，但是题目中的“better habitat（更适合的栖息地）”只有在原文 D 段提到了：“Capuchins were the first to begin using the reborn forests...”。这里讲“卷尾猴是最先在新生林里生存的猴子”，而且是在该树林只生长了 14 年的时候。与吼猴



相比,即便是只有 14 年树龄的树木也能承载卷尾猴的重量。因此,该树林是更适合它们的栖息地。而该段落中出现的地点是“Santa Rosa National Park”,因此正确答案为 B。

### Questions 36-40

#### 解答

36. 利用题目细节信息“La Pacifica”以及顺序性原则定位于原文段落 B 的前两句话“Howlers persist at La Pacifica, Glander explains, because they are leaf-eaters. They eat fruit, when it's available, but unlike capuchin and spider monkeys, do not depend on large areas of fruiting trees”。原文中的“eat...when it's available, but...do not depend on”对应题目中的“when...is not easily found”,所以该题目的正确答案为 fruit。
37. 利用题目细节信息“ability to alleviate”以及顺序性原则定位于原文段落 C 的第 1 句话“All primates, including humans, have some ability to handle plant toxins”。原文中的“ability to handle”对应题目中的“ability to alleviate”,所以该题目的正确答案为 plant toxins。
38. 利用题目细节信息“round for just every 2 years”定位于原文段落 E 的第 2、3 句话“Capuchins don't bear their first young until about 7 years old, and spider monkeys do so even later, but howlers give birth for the first time at about 3.5 years of age. Also, while a female spider monkey will have a baby about once every four years, well-fed howlers can produce an infant every two years”,因此该题目的正确答案为 birth。
39. 利用题目细节信息“the leaves that howlers eat hold high content of”以及顺序性原则定位于原文段落 F 的第 1 句话“The leaves howlers eat hold plenty of water...”。题目中的“high content of”与原文中的“plenty of”相对应,所以该题目的正确答案为 water。
40. 利用题目细节信息“resist the continuous”和“Guanacaste”以及顺序性原则定位于原文段落 F 末句“which have suffered during the long, ongoing drought in Guanacaste”。原文中的“the long, ongoing”与题目中的“the continuous”相对应,因此该题目的正确答案为 drought。

### 参考译文

#### Monkeys and Forests

#### 猴子与森林

AS AN EAST WIND blasts through a gap in the Cordillera de Tilarán, a rugged mountain range that splits northern Costa Rica in half, a female mantled howler monkey moves through the

swaying trees of the forest canopy.

峰峦叠起的科迪勒拉山脉将哥斯达黎加北部一分为二。当一阵东风横扫科迪勒拉山脉间的一个山口时, 摇摆的树林间, 一只雌性长毛吼猴正在树冠中穿行而过。

A Ken Glander, a primatologist from Duke University, **gazes** into the canopy, tracking the female's movements. Holding a dart gun, he waits with infinite patience for the right moment to shoot. With great care, Glander aims and fires. Hit in the rump, the monkey wobbles. This howler belongs to a population that has lived for decades at Hacienda La Pacifica, a working cattle ranch in Guanacaste province. Other native primates — white-faced capuchin monkeys and spider monkeys — once were common in this area, too, but vanished after the Pan-American Highway was built nearby in the 1950s. Most of the surrounding land was clear-cut for pasture.

A 来自杜克大学的灵长类动物学家肯·格兰达 (Ken Glander) 正注视着树冠层, 跟踪记录那只雌猴的一举一动。他举着镖枪, 无比耐心地等待着合适的射击时机。格兰达小心翼翼地瞄准目标并射击。镖枪打中了猴子的臀部, 它不停地摇晃。这只吼猴属于拉帕西菲卡庄园 (Hacienda La Pacifica) 生活了数十载的一个种群。该庄园是一座位于瓜纳卡斯特省的养牛牧场。当地其他的灵长类动物, 比如白面卷尾猴和蜘蛛猴, 曾经也经常出没于此, 然而它们却在 20 世纪 50 年代泛美公路修成后消失了。周围大部分土地都被开辟出来做牧场使用。

B Howlers **persist** at La Pacifica, Glander explains, because they are leaf-eaters. They eat fruit, when it's available but, unlike capuchin and spider monkeys, do not depend on large areas of fruiting trees. "Howlers can survive anyplace you have half a dozen trees, because their eating habits are so **flexible**," he says. In forests, life is an arms race between trees and the myriad creatures that feed on leaves. Plants have evolved a variety of chemical defenses, ranging from bad-tasting tannins, which **bind** with plant-produced nutrients, **rendering** them **indigestible**, to deadly poisons, such as alkaloids and cyanide.

B “吼猴们之所以能在拉帕西菲卡庄园存活下来, 是因为它们都是植食性动物,” 格兰达解释道。在有水果的季节, 它们会吃水果, 但它们并不依赖于大片的果林, 这一点有别于卷尾猴和蜘蛛猴。“只要有五六棵树, 吼猴们就能够存活, 因为它们的饮食习惯很灵活,” 他说道。在森林中, 树木与无数植食性动物之间的较量就像是一场“军备竞赛”。植物已经进化出各种各样的化学防御系统, 轻者是难以下咽的单宁酸, 它与植物产生的养分结合会引起消化不良; 重者则是致命的毒药, 如生物碱和氰化物等。

C All primates, including humans, have some ability to handle plant toxins. “We can **detoxify** a dangerous poison known as caffeine, which is deadly to a lot of animals,” Glander says. For leaf-eaters, long-term **exposure** to a specific plant toxin can increase their ability to **defuse** the poison and absorb the leaf nutrients. The leaves that grow in **regenerating** forests, like those at La Pacifica, are actually more howler friendly than those produced by the undisturbed, centuries-old trees that survive farther south, in the Amazon Basin. In younger forests, trees put most of their limited energy into growing wood, leaves and fruit, so they produce much lower levels of toxin than do well-established, old-growth trees.

C 所有灵长类动物（包括人类在内）都有一定的分解植物毒素的能力。“人类能够解除一种被称为咖啡因的危险毒素，而对于很多动物来说，咖啡因是致命的”，格兰达说道。对于植食性动物而言，长期接触和食用某种特定的植物毒素可以提高其抵御该毒素和吸收叶片养分的能力。而生长于再生林中的树叶，如在拉帕西菲卡庄园里生长的叶子，实际上比那些生长在南边亚马孙流域的百年古树的叶子更受吼猴的喜爱。在新生的森林中，树木会消耗大部分有限的能量供养树干、叶子和果实。因此，对于那些已经长成参天大树的古树来说，它们产生的毒素要少得多。

D The value of maturing forests to primates is a subject of study at Santa Rosa National Park, about 35 miles northwest of Hacienda La Pacifica. The park hosts populations not only of mantled howlers but also of white-faced capuchins and spider monkeys. Yet the forests there are young, most of them less than 50 years old. Capuchins were the first to begin using the reborn forests, when the trees were as young as 14 years. Howlers, larger and heavier than capuchins, need somewhat older trees, with limbs that can support their greater body weight. A working ranch at Hacienda La Pacifica also explains their **population boom** in Santa Rosa. “Howlers are more **resilient** than capuchins and spider monkeys for several reasons,” Fedigan explains. “They can live within a small home range, as long as the trees have the right food for them. Spider monkeys, on the other hand, occupy a huge home range, so they can’t make it in **fragmented** habitat.”

D 枝繁叶茂的森林对灵长类动物的重要性是圣罗莎国家公园的一项研究课题。这座公园在拉帕西菲卡庄园西北约 35 英里处。公园里不仅生长着吼猴，而且还生长着白面卷尾猴和蜘蛛猴。不过，那是一片现代森林，大多数树木的树龄还不到 50 年。卷尾猴是最先在这片森林里生存的猴子，那时树林大概只生长了 14 年。吼猴比卷尾猴大且重，会依赖更年长的树，因为老树的树枝才能支撑它们的大体型。拉帕西菲卡庄园的人工牧场也成为解释圣罗莎国家公园中吼猴数量激增的原因的例证。“吼猴比卷尾猴和蜘蛛猴更能灵活地适应生存环境，这是有许多原因的，”费蒂甘（Fedigan）解释道：“由于吼猴活动范围小，只要树木能够提供合适的食物即可。然而，蜘蛛猴需

要很大的活动范围, 因此它们无法在分散的栖息地存活。”

E Howlers also reproduce faster than do other monkey species in the area. Capuchins don't **bear** their first young until about 7 years old, and spider monkeys do so even later, but howlers give birth for the first time at about 3.5 years of age. Also, while a female spider monkey will have a baby about once every four years, well-fed howlers can produce an infant every two years.

E 在这一地区, 吼猴的繁殖速度也要比其他种类的猴子更快。卷尾猴直到 7 岁时才开始生育, 蜘蛛猴甚至更晚, 而吼猴在 3 岁半左右就开始生育。此外, 雌性蜘蛛猴大约每 4 年才生育一次, 而营养充足的吼猴每两年就能生育一次。

F The leaves howlers eat hold plenty of water, so the monkeys can survive away from open streams and water holes. This ability gives them a real advantage over capuchin and spider monkeys, which have suffered during the long, ongoing drought in Guanacaste.

F 吼猴所吃的叶子含水量充足, 因此它们可以在远离溪流和水坑的地方生存。在瓜纳卡斯特持久的干旱期间, 这种生存能力使得吼猴较卷尾猴和蜘蛛猴具有极大的优势。

G Growing human population pressures in Central and South America have led to **persistent** destruction of forests. During the 1990s, about 1.1 million acres of Central American forest were **felled** yearly. Alejandro Estrada, an ecologist at *Estacion de Biologia Los Tuxtlas* in Veracruz, Mexico, has been exploring how monkeys survive in a landscape increasingly **shaped** by humans. He and his colleagues recently studied the ecology of a group of mantled howler monkeys that **thrive** in a habitat completely altered by humans: a cacao plantation in Tabasco, Mexico. Like many varieties of coffee, cacao plants need shade to grow, so 40 years ago the landowners planted fig, monkey pod and other tall trees to form a protective canopy over their crop. The howlers moved in about 25 years ago after nearby forests were cut. This strange habitat, a **hodgepodge** of cultivated native and **exotic** plants, seems to support about as many monkeys as would a same-sized patch of wild forest. The howlers eat the leaves and fruit of the shade trees, leaving the valuable cacao pods alone, so the farmers **tolerate** them.

G 中美洲和南美洲日益增长的人口压力已经导致了对森林的持续性破坏。在 20 世纪 90 年代间, 中美洲每年约有 110 万英亩的森林被砍伐。墨西哥韦拉克鲁斯州生物研究站的生态学家亚历杭德罗·埃斯特拉达 (Alejandro Estrada) 一直在研究猴类是如何在逐渐被人类改造的环境中生存的。最近, 他和他的同事研究了墨西哥塔巴斯科州的可可种植园里的一群长毛吼猴的生态情况。这群吼猴在一个被人类彻底改变的

栖息地中茁壮成长。像许多品种的咖啡豆一样,可可树需要在阴凉处生长,于是种植园主在 40 年前就栽种了无花果树、猴荚和其他高大的树木,构成了可可作物的防护棚。大约 25 年前,在附近的森林被砍伐之后,吼猴们便迁移进来。这片奇怪的栖息地上既种植着本土植物,也栽种了外来植物,是一个混合林。它似乎能够像同等面积的野生森林一样供养相同数量的猴子。吼猴以遮阴树的树叶和果实为食,并没有吃有经济价值的可可豆荚,因此,农民便默许了它们的存在。

H Estrada believes the monkeys bring underappreciated benefits to such farms, **dispersing** the seeds of fig and other shade trees and **fertilizing** the soil with feces. He points out that howler monkeys live in shade coffee and cacao plantations in Nicaragua and Costa Rica as well as in Mexico. Spider monkeys also forage in such plantations, though they need nearby areas of forest to survive in the long term. He hopes that farmers will begin to see the advantages of **associating with** wild monkeys, which includes potential ecotourism projects.

H 埃斯特拉达认为猴类动物对这些农场的贡献被低估了。它们四处散播无花果树和其他遮阴类树木的种子,它们的粪便也使得土壤更为肥沃。他指出,吼猴生活在尼加拉瓜、哥斯达黎加以及墨西哥的咖啡树荫和可可种植园中。蜘蛛猴也在这样的种植园中觅食,尽管从长远来看,它们还需要借助周边的森林区域来生存。他希望农民能够开始认识到与野生猴“合作”的好处,其中也包括潜在的生态旅游项目。

“Conservation is usually viewed as a conflict between agricultural practices and the need to preserve nature,” Estrada says. “We’re moving away from that vision and beginning to consider ways in which agricultural activities may become a tool for the conservation of primates in human-modified landscapes.”

“环境保护通常被认为是农业实践和自然保护之间的冲突,”埃斯特拉达说道:“我们要抛开这种想法,开始考虑新的方式,使农业活动能够成为保护灵长类动物在人类改造的环境中生存的手段之一。”



# Test 4

## Reading Passage 1. T-rex: Hunter or Scavenger?

### 词汇详解

**imprint** *n.* 印记；痕迹；特征；版本说明（作动词时，意为“加特征；刻上记号”；作名词时，近义词有：mark, print, characteristic, trace。在文章中，“imprint of life”表示“生命印记”。）

**consultant** *n.* 顾问，咨询者；会诊医生（常用短语：management consultant 管理顾问；marketing consultant 营销顾问；consultant firm 咨询公司；consultant management 顾问工程管理。作“顾问”讲时，近义词有：brain truster, counsellor；作“参事”讲时，等同于 counsellor。）

**quarry** *n.* 采石场；猎物；来源 *v.* 费力地找，挖出，努力挖掘（文中是名词“采石场”的意思。以“quarry”为词根衍生出来的单词有：quarrier 凿石匠，采石工人；quarrying 采石；quarryman 凿石匠，采石工。）

**ranch** *n.* 大农场；大牧场 *v.* 经营牧场；在牧场工作（相关词组有：ranch house 低矮的平房；dude ranch 度假牧场，观光牧场。）

**excavate** *v.* 发掘；挖掘（雅思听力考试中经常出现，近义词：dig。）

**skeleton** *n.* 骨架，骨骼；纲要 *adj.* 骨骼的；骨瘦如柴的；概略的（文中出现时作名词，意为“骨骼，骨架”。）

**literally** *adv.* 照字面地；不夸张地；正确地；简直（常见短语有：literally true 表述真实；literally walk 随便走走。）

**thesis** *n.* 论文；论点（常见短语有：graduation thesis 毕业论文，毕业设计；thesis writing 论文写作；scientific thesis 科学论点；thesis defense 论文答辩。）

**sort** *n.* 分类，类别 *v.* 挑选，把……分类（文章中“all sorts of”表示“各种各样的”。）

**definitely** *adv.* 清楚地；明确地，肯定地（常见短语：say definitely 明确地说。）

**conifer** *n.* 针叶树；松柏科植物。

**moor** *v.* 系住；使停泊 *n.* 沼泽；荒野（作“系住”讲时，近义表达有 bend on；作名词“沼

泽；荒野”时，近义词有 wild, cienaga。文章中取其名词意思。)

**tremendous** *adj.* 极大的, 巨大的; 惊人的 (相关短语有: tremendous effort 九牛二虎之力; tremendous changes 巨大转变; tremendous popularity 巨大的人气, 好评如潮。)

**predator** *n.* 捕食者 (近义词: carnivore。)

**clumsy** *adj.* 笨拙的

**reevaluate** *v.* 再评估; 重新估计

**coffin** *n.* 棺材 (相关短语有: coffin chamber 墓室。“When one's coffin is covered, all discussion about him can be settled” 即“盖棺定论”。)

**propel** *v.* 推动, 驱使 (近义词: drive。)

**sluggish** *adj.* 萧条的; 迟钝的; 行动迟缓的; 懒惰的 (文章中取其“行动迟缓的”意思。相关短语有: sluggish world economy 衰退的世界经济; accelerate the sluggish economy 加速经济萧条。)

**scavenger** *n.* 食腐动物; 清道夫; 清除剂; 拾荒者 (文章中意为“食腐动物”。作“清除剂; 清道夫”讲时, 近义词有: sweeper。)

## 题目详解

### Questions 1-7

#### 解答

1. 利用题目细节信息 “the age of 8” 定位于原文第 2 段中间部分 “I am pretty sure it was the upper arm bone of a duckbilled dinosaur”。他非常确定这个骨头是鸭嘴龙的上臂骨。原文内容与题目相符合, 因此, 正确答案为 TRUE。
2. 利用题目细节信息 “graduated” 定位于第 3 段第 1 句话 “Horner spent seven years at university, but never graduated”。很明显, 这里提及 “never graduated (从未毕业)”, 那就是没有取得任何学位。题目信息与原文信息相矛盾, 所以正确答案为 FALSE。
3. 利用题目细节信息 “prey” 和 “predator” 定位到第 4 段倒数第 2 句 “What we would consider the predator-prey ratio seems really off the scale”。此句话是说 “捕食者与被捕者的比例似乎真的超出了标准”, 也就是说 Jack 认为如果霸王龙是捕食者, 那它的数量就太多了, 比例失衡。这就不符合 Jack 所坚持的捕食者数量小于被捕者数量的比例标准。这与题目所说的 “prey (被捕者) 的数量应多于 predators (捕食者) 的数量” 意思一致。因此, 正确答案为 TRUE。
4. 利用题目细节信息 “Serengeti” 定位于原文第 5 段第 2 句及中间部分 “Look at the wildebeest that migrate in the Serengeti of Africa, a million individuals lose about 200,000 individuals in that annual migration”, “If T-rex was a top predator...and yet they are everywhere, they are a dime a dozen”。这里讲到牛羚的迁徙, 以及秃鹰和霸王龙各自



所处的地位,但并未提及题目中有关于秃鹰和霸王龙数量上相等的信息,因此正确答案为 NOT GIVEN。

5. 利用题目细节信息 “T-rex is top predator” 定位于第 5 段中间部分 “If T-rex was a top predator, especially considering how big it is, you’d expect it to be extremely rare, much rarer than the little dromaeosaurs, and yet they are everywhere, they are a dime a dozen”。文中说如果霸王龙是顶级捕食者,数量应该是稀少的,但是它到处都是,所以并不是顶级捕食者。也就是题目所说的 “‘霸王龙是顶级捕食者’ 的假设与 Jack 的发现相冲突”。题目信息与原文内容相符,因此正确答案为 TRUE。
6. 利用题目细节信息 “theory” 定位于第 5 段末句 “He insisted his theory and finding, dedicated to further research upon it, of course, he would like to reevaluate if there is any case that additional evidence found or explanation raised by others in the future”。这里讲到他坚信自己的理论和调查结果,如果未来有其他人发现新的证据或解释,他愿意重新评估自己的理论。而题目中 “refused to accept” 与原文信息相矛盾,所以正确答案为 FALSE。
7. 利用题目细节信息 “T-rex’s bones” 定位于第 6 段第 1 句话 “He examined the leg bones of the T-rex”, 但是这里只讲到研究了 “T-rex’s bones”, 并未提及题目中的 “是第一位发现霸王龙骨头的人”。题目信息在原文信息的基础上无法判断,所以正确答案为 NOT GIVEN。

### Questions 8-13

#### 解答

8. 利用细节信息 “thigh bone” 定位于原文第 6 段第 2 句话 “He found that the thigh bone was equal in length or slightly longer than the shin bone”。原文中的 “thigh bone...longer than the shin bone” 对应题目中的 “...is shorter than the thigh bone”, 因此正确答案为 shin bone。
9. 利用顺序原则定位于第 6 段第 2 句话末尾 “which proves that the animal was built to be a slow walker rather than fast running”。题目中的 “demonstrates” 与原文中的 “proves” 为同义替换。因此, 正确答案为 slow walker。
10. 利用细节信息 “ostrich” 定位于第 6 段末句 “the ostrich, cheetah, etc.” 显而易见, 正确答案为 cheetah。
11. 利用细节信息 “built” 定位于第 6 段末句 “This same truth can be observed in many animals of today which are designed to run fast”。题目中的 “built” 有 “身材较好, 天生而成” 之意, 与原文中的 “designed” 相对应, 都是 “天生” 之意, 因此正确答案为 run fast。



12. 利用细节信息 “T-rex’s teeth” 定位于原文第 7 段末句 “The T-rex’s teeth were huge, sharp at their tip, but blunt”。考生很容易填写 “huge” 或 “sharp”，但仔细阅读题目可发现 “rather (相当)” 这个副词，与原文中的 “but” 相对应，都表示强调作用，而且题目还提到 “Another explanation supports his idea...”，所以综上所述，正确答案为 blunt。
13. 利用顺序原则定位于第 7 段末句 “propelled by enormous jaw muscles, which enabled them to only crush bones”。题目中的 “allowed T-rex to” 与原文中的 “enabled them to” 都表示 “使霸王龙能够”，两者是同义替换，因此正确答案为 crush。

## 参考译文

### T-rex: Hunter or Scavenger?

#### 霸王龙：狩猎者或食腐者？

Jack Horner is an unlikely academic: his dyslexia is so bad that he has trouble reading a book. But he can read the **imprint** of life in sandstone or muddy shale across a distance of 100 years, and it is this gift that has made him curator of palaeontology at Montana State University’s Museum of the Rockies, the leader of a multi-million dollar scientific project to expose a complete slice of life 68 million years ago, and a **consultant** to Steven Spielberg and other Hollywood figures.

杰克·霍勒 (Jack Horner) 不太像是一位学者：他有非常严重的阅读障碍，以致于他连读一本书都很困难。但是，他却能读懂那些跨越百年的砂岩和泥页岩内的生命印记，也正是这一天赋，使他成为了蒙大拿州立大学落基山古生物学博物馆的馆长。同时，他也是耗资数百万美元的科研项目的领头人，该项目旨在探索 6800 万年前完整生命情况。他还是斯蒂芬·斯皮尔伯格 (Steven Spielberg) 导演和其他好莱坞名人的顾问。

His father had a sand and gravel **quarry** in Montana, and the young Horner was a collector of stones and bones, complete with notes about when and where he found them. “My father had owned a **ranch** when he was younger, in Montana,” he says. “He was enough of a geologist, being a sand and gravel man, to have a pretty good notion that they were dinosaur bones. So when I was eight years old he took me back to the area that had been his ranch, to where he had seen these big old bones. I picked up one. I am pretty sure it was the upper arm bone of a duck-billed dinosaur: it probably wasn’t a duckbilled dinosaur but closely related to that. I catalogued it, and took good care of it, and then later when I was in high school, **excavated** my first dinosaur **skeleton**. It obviously started earlier than eight and I **literally** have been driven ever since. I feel like I was born this way.”

杰克·霍勒的父亲在蒙大拿州拥有一处砂砾采石场。霍勒小时候就是一个石头和化石收藏家，他还会完整地记录他在何时何地发现这些化石骨头的。“我的父亲年轻的时候在蒙大拿州拥有一座农场，”杰克·霍勒说道：“他整日流连于砂砾之间，称得上是一位地质学家，他十分确定这些都是恐龙化石。在我8岁的时候，他带我回到那片曾经属于他的农场。在那里，他见识过那些古老而巨大的化石。我捡起了一块化石。我敢肯定这块骨头是一只鸭嘴恐龙的上臂骨：它可能不是一只完整的鸭嘴恐龙，但与其有很大的关系。我将这块化石编目分类并细心保管。后来，在我上高中的时候，我挖掘到了生平第一具恐龙骨架。我的兴趣显然始于8岁之前，从那以后我就这样被这个爱好一步一步推动着向前。我觉得我生来就热爱此事。”

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Horner spent seven years at university, but never graduated. “I have a learning disability, I would call it a learning difference — dyslexia, they call it — and I just had a terrible time with English and foreign languages and things like that. For a degree in geology or biology they required two years of a foreign language. There was no way in the world I could do that. In fact, I didn’t really pass English. So I couldn’t get a degree, I just wasn’t capable of it. But I took all of the courses required and I wrote a **thesis** and I did all **sorts** of things. So I have the education, I just don’t have the piece of paper.” he says.

霍勒花了7年的时间上大学，但最终还是没能成功毕业。“我有学习障碍，我称之为学习差异——其他人则称之为阅读障碍——我在学习英语和外语以及类似的功课上很不顺利。可是要获得地质学或生物学学位的话，必须上两年的外语课。我无论如何也没有办法做到这点。事实上，我的英语考试都没及格。所以我也没有办法获得学位，我就是没办法做到。但是我上了所有必修课，写了一篇论文，并完成了各种各样的事情。所以，我还是受过教育的，只是没有拿到毕业证书那张纸而已。”他如是说。

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“We **definitely** know we are working on a very broad coastal plain with the streams and rivers bordered by **conifers** and hardwood plants, and the areas in between these rivers were probably fern-covered. There were no grasses at all: just ferns and bushes — an unusual landscape, kind of taking the south-eastern United States — Georgia, Florida — and mixing it with the **moors** of England and flattening it out,” he says. “Triceratops is very common: they are the cows of the Cretaceous, they are everywhere. Duckbilled dinosaurs are relatively common but not as common as triceratops and T-rex, for a meat-eating dinosaur, is very common. What we would consider the predator-prey ratio seems really off the scale. What is interesting is the little dromaeosaurs, the ones we know for sure were good predators, are haven’t been found.”

“我们都知道，我们正在对一个非常广阔的海岸平原进行研究，那里有小溪和河流，周围有针叶和阔叶植物，而这些河流之间的区域很可能被蕨类植物覆盖着。完全没有草类，

只有蕨类植物和灌木——这是一种很不寻常的景观，有点像是把美国东南部（比如，佐治亚州或佛罗里达州）与英格兰的沼泽混合后再压扁的结果。”他说：“（这一带）三角龙极为常见：它们就如同白垩纪时期的奶牛，到处都是。鸭嘴恐龙也较为常见，但没有食肉的霸王龙和三角龙多。因此，我们所说的猎食比率似乎真的严重失衡了。有趣的是，有一种我们都明确知道的很厉害的食肉动物——小驰龙，至今都还没发现。”

That is why he sees T-rex not as the lion of the Cretaceous savannah but its vulture. “Look at the wildebeest that migrate in the Serengeti of Africa, a million individuals lose about 200,000 individuals in that annual migration. There is a **tremendous** carrion base there. And so you have hyenas, you have tremendous numbers of vultures that are scavenging, you don’t have all that many animals that are good **predators**. If T-rex was a top predator, especially considering how big it is, you’d expect it to be extremely rare, much rarer than the little dromaeosaurs, and yet they are everywhere, they are a dime a dozen,” he says. A 12-tonne T-rex is a lot of vulture, but he doesn’t see the monster as **clumsy**. He insisted his theory and finding, dedicated to further research upon it, of course, he would like to **reevaluate** if there is any case that additional evidence found or explanation raised by others in the future.

这也是为什么他认为霸王龙并不像白垩纪时期草原上的狮子，而是像秃鹫。“看看这些在非洲塞伦盖蒂平原迁徙的牛羚们，在每年的迁徙中，100万只牛羚大概只有80万可以活到最后。在那儿有一座巨大的腐肉基地。因此，你可以看到土狼和非常多的秃鹫，它们会“清理掉”这些腐肉，毕竟不是所有的动物都是厉害的捕食者。如果霸王龙是顶级的捕食者，特别是考虑到其身形大小时，你会认为它应该是极其稀少的，至少比那些小驰龙要稀少得多，但事实上它们到处都是，多得很。”他说。一只12吨的霸王龙相当于许多只秃鹫，但霍勒并不认为这种巨兽行动起来是笨拙的。他坚持他的理论和发现，并致力于在此基础上做更深层的研究。当然，如果将来有其他人发现另外的证据或解释，他也愿意重新评估自己的研究。

He examined the leg bones of the T-rex, and compared the length of the thigh bone (upper leg), to the shin bone (lower leg). He found that the thigh bone was equal in length or slightly longer than the shin bone, and much thicker and heavier, which proves that the animal was built to be a slow walker rather than fast running. On the other hand, the fossils of fast hunting dinosaurs always showed that the shin bone was longer than the thigh bone. This same truth can be observed in many animals of today which are designed to run fast: the ostrich, cheetah, etc.

他还研究了霸王龙的腿骨，并比较了其股（大腿）骨和胫（小腿）骨的长度。他发现霸王龙的股骨长度等于或稍长于其胫骨，而且更粗更重，这表明，这种动物天生行走比较缓慢，并不适合快速奔跑。另一方面，从那些行动迅速的狩猎恐龙的化石来看，它们的

胫骨通常比大腿骨长。从今天许多天生奔跑迅速的动物（例如鸵鸟、猎豹等）身上，我们可以观察得出同样的结论。

He also studied the fossil teeth of the T-rex, and compared them with the teeth of the Velociraptor, and put the nail in the **coffin** of the “hunter T-rex theory”. The Velociraptor’s teeth which like stake knives: sharp, razor-edged, and capable of tearing through flesh with ease. The T-rex’s teeth were huge, sharp at their tip, but blunt, **propelled** by enormous jaw muscles, which enabled them to only crush bones.

他还研究了霸王龙的牙齿化石，并将其与迅猛龙的牙齿进行了比较，从而对“霸王龙狩猎者理论”定下了结论。迅猛龙的牙齿就像刀锋一般：尖锐、锋利，可以毫不费力地撕开猎物的血肉。霸王龙的牙齿则比较巨大，牙尖很尖，但是比较钝，通过其巨大的下颌肌肉推动，也仅仅只能碾碎猎物的骨头。

With the evidence presented in his documentary, Horner was able to prove that the idea of the T-rex as being a hunting and ruthless killing machine is probably just a myth. In light of the scientific clues he was able to unearth, the T-rex was a slow, **sluggish** animal which had poor vision, an extraordinary sense of smell, that often reached its “prey” after the real hunters were done feeding, and sometimes it had to scare the hunters away from a corpse. In order to do that, the T-rex had to have been ugly, nasty-looking, and stinky. This is actually true of nearly all **scavenger** animals. They are usually vile and nasty looking.

通过其纪录片中所展示的证据，霍勒能够证明，霸王龙是残忍的猎杀机器这一猜想也许只是不实之说。根据他所发现的科学线索，霸王龙是一种行动缓慢、反应迟钝的动物。它的视力不佳，但是嗅觉极好，经常在真正的狩猎动物吃饱之后发现“猎物”，而且有时候它不得不把这些狩猎者从猎物尸体旁吓走。为了做到这一点，霸王龙必须是外貌丑陋、凶恶而且浑身散发恶臭的。几乎所有的食腐动物都是如此，它们通常是肮脏、丑陋的。

## Reading Passage 2. Leaf-cutting Ants and Fungus

### 词汇详解

**extensively** *adv.* 广阔地；广大地（近义词有：widely, vastly。extensively 常用于修饰学术研究的范围，我们常说“extensively studied”，意为“广泛地研究”。）

**domesticate** *v.* 驯养；教化；引进（短语“domesticate tame”强调“驯养”；近义词有：introduce, teach。）

**pharmaceutical** *adj.* 制药(学)的 *n.* 药物(相关短语: pharmaceutical chemistry 药物化学; pharmaceutical care 药学服务。)

**marvel** *n.* 奇迹 *v.* 对……感到惊异(常见用法: marvel at 对……感到惊奇。)

**digestive** *adj.* 消化的; 助消化的 *n.* 助消化药(作名词时, 近义词有: pepsine, bromo。)

**tropical** *adj.* 热带的; 热情的; 酷热的(常见短语: tropical forest 表示“热带森林”。近义词有: intense, warm, hot, enthusiastic, passionate。)

**descendant** *adj.* 下降的; 祖传的 *n.* 后裔; 子孙(作形容词时, 近义词有: falling, downward; 作名词时, 近义词有: child, seed。)

**detritus** *n.* 碎石(近义词有: rubble, crushed stone。)

**budding** *adj.* 萌芽的; 发育期的 *n.* 发芽(词根: bud 意为“使发芽”。衍生词: budless 无芽的。)

**interloper** *n.* 闯入者(动词形式为 interlope。)

**infection** *n.* 感染; 传染; 影响; 传染病(常见表达: virus infection 病毒感染。近义词有: impression, affection, effect, influence, incidence。词根: infect 表示“感染”之意。相关词汇有: infectious 传染的, 传染性的, 易传染的; infected 被感染的; infective 有传染性的, 感染别人的。)

**underneath** *prep.* 在……的下面; 在……的支配下 *adv.* 在下面 *n.* 下面; 底部 *adj.* 下面的; 底层的(作副词时, 近义词有: hereunder, down below; 作名词时, 近义词有: basis, bottom, base。)

**envelop** *v.* 包围; 包封; 遮盖

**relentless** *adj.* 无情的; 残酷的; 不间断的(近义词有: cruel, iron, ongoing, ruthless。)

**alternative** *adj.* 供选择的; 选择性的; 交替的 *n.* 二中择一; 供替代的选择(近义词有: selective, vicissitudinary。)

**bacterium** *n.* 细菌(近义词: microbe, bacillus。)

**prudently** *adv.* 谨慎地; 慎重地(近义词: deliberately, cautiously。)

**provoke** *v.* 激怒; 挑拨; 诱发(常见短语: thought-provoking question 启发思维的问题。)

**resistance** *n.* 阻力; 电阻; 抵抗; 反抗; 抵抗力(近义词: resisting force, rebellion。)

**target** *n.* 目标; 靶子(近义词: goal, object, end, cause, aim。)

## 题目详解

### Questions 14-19

#### 解答

14. 利用题目细节信息“toxic leaves”和“feed fungus”定位于原文段落 B 末句“because it allows them to eat, courtesy of their mushroom’s digestive powers, the otherwise poi-

soned harvest of tropical forests whose leaves are laden with terpenoids, alkaloids and other chemicals designed to sicken browsers”。这道题的难点在于找到题目中“feed fungus”所对应的原文。文中说到“the otherwise poisoned harvest of tropical forests whose leaves are laden with terpenoids, alkaloids and other chemicals designed to sicken browsers”，既然热带雨林中的叶子有毒，切叶蚁为什么还要收集而且不会中毒呢？那是因为真菌的消化作用（mushroom's digestive powers）。此外，文章C段还提到“The leaf-cutters use fresh vegetation（切叶蚁使用新鲜的植被养活自己的真菌园）”，所以切叶蚁收集有毒的树叶是为了饲养真菌。因此，正确答案为A。

15. 利用题目细节信息“small nests”、“different”和“foreign”定位于原文C段第3句与D段第2句。C段第3句“the other groups, known as the lower attines because their nests are smaller and their techniques more primitive”，这里讲的是“它们的巢较小且种植技术更原始，被称为 lower attines”。原文中的“nests are smaller”对应题目中的“small nests”。但本段未出现题目中的后半部分信息，需要接着往下看。D段第2句“But the lower attine ants used different varieties of the fungus”，这里说“lower attine 蚂蚁使用不同种类的真菌”。原文中的“different varieties of the fungus”对应题目中的“different foreign fungus”。结合原文内容，此处讲的都是 lower attines，因此正确答案为B。
16. 利用题目细节信息“dead vegetation”定位于原文C段第3句“known as the lower attines because their nests are smaller and their techniques more primitive, feed their gardens with detritus like dead leaves, insects and feces”。这句话讲到“它们用枯叶、昆虫和粪便的碎屑来养活自己的园子”。原文中的“dead leaves”与题目中的“dead vegetation”为同义替换，所对应的是 lower attines。因此，正确答案为B。
17. 利用题目细节信息“a single fungus”定位于D段首句“The leaf-cutters' fungus was indeed descended from a single strain, propagated clonally, or just by budding, for at least 23 million years.”这里说“切叶蚁所种的菌种是单一菌株”，而不像 lower attine ants 那样 used different varieties of the fungus。因此，正确答案为A。
18. 利用顺序原则定位于原文E段第3句“Escovopsis turns out to be a highly virulent pathogen...”和F段首句“Evidently the ants usually manage to keep Escovopsis and other parasites under control.”这说明蚂蚁通常能够控制住 Escovopsis 这种高危险的寄生物，这与题目相对应。此外，H段首句提到“Discovery of a third partner in the ant-fungus symbiosis raises the question of how the attine ants, especially the leaf-cutters, keep this dangerous interloper under control.”这说明“果蚁，尤其是切叶蚁能有效控制这种寄生物”，对应 leaf-cutters。因此，正确答案为A。
19. 利用顺序原则先定位于原文F段，该段后半部分提到“lower attine species keep changing the variety of fungus in their mushroom gardens, and occasionally domesticating new ones — to stay one step ahead of the relentless Escovopsis”。这说明低等果蚁不断



改变蘑菇园中的真菌品种，偶尔还培育新的真菌品种，目的是为了在和无情的 Escovopsis 霉菌的对抗中占据上风。然后再定位到原文 H 段首句 “Discovery of a third partner in the ant-fungus symbiosis raises the question of how the attine ants, especially the leaf-cutters, keep this dangerous interloper under control.” 这说明切叶蚁也能够通过 “第三方” 来对抗 Escovopsis 霉菌。因此，这两种类型的蚂蚁都有自己的 “special strategies” 可以 “fight against Escovopsis”，与题目相对应，故正确答案为 C。

## Questions 20-24

### 解答

20. 该信息出现在原文 E 段第 3 句 “Escovopsis turns out to be a highly virulent pathogen that can devastate a fungus garden in a couple of days.” 这里讲到 “Escovopsis 霉菌是剧毒性病原体，它可以在几天之内毁灭一个真菌园”。原文中的 “turns out to be” 表示 “结果”，对应题目中的 “outcome”，文中 “devastate a fungus garden in a couple of days” 与题目中的 “Dangerous outcome of Escovopsis” 相对应。因此，正确答案为 E。
21. 该信息出现在原文 D 段第 5 句话 “Monocultures, which lack the genetic diversity to respond to changing environmental threats, are sitting ducks for parasites.” 这里讲到 “单一栽培往往因为缺乏基因的多样性来应对不断变化的环境威胁，从而容易成为寄生虫攻击的目标”，对应题目中的 “Risk of growing single fungus (单一种植的风险)”。因此，正确答案为 D。
22. 该信息出现在原文 C 段第 3 句 “The leaf-cutters use fresh vegetation; the other groups, known as the lower attines because their nests are smaller and their techniques more primitive, feed their gardens with detritus like dead leaves, insects and feces.” 这里提及 “leaf-cutters” 使用新鲜的植被养活自己的园子，而后面紧接着对比说到 “lower attines” 由于巢穴较小，技术也更加原始，因此使用枯叶、昆虫和粪便等碎屑来养活自己的园子，前后两者对比，正好与题目相对应。因此，正确答案为 C。
23. 该信息出现在原文 H 段倒数第 2、3 句 “If so, some Alexander Fleming of an ant discovered antibiotics millions of years before people did. Even now, the ants are accomplishing two feats beyond the powers of human technology.” 原文讲到蚂蚁先于人类发现抗生素，并且即使到现在，蚂蚁仍然有两项成果超越人类。原文中的 “two feats” 与题目中的 “two achievements” 为同义替换，而 “millions of years before people did” 和 “beyond the powers of human technology” 与题目中的 “earlier than human” 相对应。因此，正确答案为 H。
24. 该信息出现在原文 F 段末句 “...and occasionally domesticating new ones — to stay one step ahead of the relentless Escovopsis”。这里提到 “培育新的真菌品种是为了在和无

情的 Escovopsis 霉菌的对抗中占据上风”。原文中的 “domesticating new ones” 与题目中的 “growing a new breed of fungus” 为同义替换, 其中 “ones” 指代的是原文前面提到的 “fungus”。因此, 正确答案为 F。

### Questions 25-26

#### 解答

25. 该信息出现在原文 D 段与 E 段, 首先, 看到 D 段 “Mr. Currie felt there had to be a parasite in the ant-fungus system. But a century of ant research offered no support for the idea.” 这里提到 “柯里先生认为在蚂蚁与真菌的体系中一定有寄生虫存在。但是这个想法在过去一个世纪对蚂蚁的研究中并未得到任何证据支持”。但 E 段接着写道 “In last month’s issue of the Proceedings of the National Academy of Sciences, he and two colleagues, Dr. Mueller and David Mairoch, isolated several alien organisms, particularly a family of parasitic molds called Escovopsis.” 这里说的是 “柯里先生与他的同事分离出了几个外来生物的菌种, 特别是一种叫作 Escovopsis 的寄生霉菌族”。这就说明 Currie 之前的猜想得到了证实, 选项 A (他的观点后来得到了证实) 符合原文内容。因此, 正确答案为 A。
26. 利用题目细节信息 “under microscope” 定位于原文 H 段 “People would say this is like a cuticular wax. But Cameron was the first one in a hundred years to put these things under a microscope. He saw it was not inert wax. It is alive.” 这里提到 “卡梅隆把这些东西放在显微镜下观察, 发现蚂蚁表皮上的不是惰性蜡, 而是活性的”。紧接又提到 “Mr. Currie discovered a specialised patch on the ants’ cuticle that harbours a particular kind of bacterium, one well known to the pharmaceutical industry, because it is the source of half the antibiotics used in medicine.” 这说明 “蚂蚁的表皮有一种特殊的斑点, 其中隐藏着一种特殊的细菌。这种细菌对于制药行业来说是非常有名的, 因为医学上使用的抗生素多半来源于此”。选项 A “一些白色的云状霉菌嵌在它们的表皮上”, 但原文中并没有说是 “white cloud mold”, 因此排除选项 A。选项 B “蜡遍布在它们的皮肤上”, 但原文中仅仅说的是 “He saw it was not inert wax. It is alive. (表皮上的不是惰性蜡, 而是活性的。)” 因此排除 B 选项。D 选项 “一种能够抑制所有真菌生长的物质” 在文中没有提及, 因此排除 D 选项。选项 C “一种对人类有用的物质”, 题目中的 “useful to humans” 与原文中的 “one well known to the pharmaceutical industry” 相对应。因此, 正确答案为 C。



## 参考译文

### Leaf-cutting Ants and Fungus

#### 切叶蚁和真菌

- A The ants and their agriculture have been **extensively** studied over the years, but the recent research has uncovered intriguing new findings about the fungus they cultivate, how they **domesticated** it and how they cultivate it and preserve it from pathogens. For example, the fungus farms, which the ants were thought to keep free of pathogens, turn out to be vulnerable to a devastating mold, found nowhere else but in ants' nests. To keep the mold in check, the ants long ago made a discovery that would do credit to any **pharmaceutical** laboratory.
- A 近年来,人们对蚂蚁以及它们的“农业活动”进行了广泛的研究。但最近的研究揭示了一些关于它们所培育的真菌的有趣新发现,包括它们是如何种植、培育真菌以及防止真菌受到病原体感染的。例如,过去认为没有病原体的蚂蚁真菌农场原来非常容易感染一种毁灭性的霉菌,而且这种霉菌仅存在于蚂蚁的巢穴中。为了控制住这种霉菌,蚂蚁很久以前就取得了一项能给所有药学实验室增添荣誉的发现。
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- B Leaf-cutting ants and their fungus farms are a **marvel** of nature and perhaps the best known example of symbiosis, the mutual dependence of two species. The ants' achievement is remarkable — the biologist Edward O. Wilson has called it “one of the major breakthroughs in animal evolution” — because it allows them to eat, courtesy of their mushroom's **digestive** powers, the otherwise poisoned harvest of **tropical** forests whose leaves are laden with terpenoids, alkaloids and other chemicals designed to sicken browsers.
- B 切叶蚁和它们的真菌园是自然界的一个奇迹,这也许还是两个物种相互依赖共生的最著名的案例。生物学家爱德华·O·威尔逊(Edward O. Wilson)认为,蚂蚁的这项成就是非凡的,堪称“动物进化史上的重大突破之一”。正是得益于真菌的消化能力,它们能够“食用”热带雨林中一些有毒的叶子,而这些叶子含有萜类化合物、生物碱,以及其他能侵害食草动物的化学物质。
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- C Fungus growing seems to have originated only once in evolution, because all gardening ants belong to a single tribe, the **descendants** of the first fungus farmer. There are more than 200 known species of the attine ant tribe, divided into 12 groups, or genera. The leaf-cutters use fresh vegetation; the other groups, known as the lower attines because their nests are smaller and their techniques more primitive, feed their gardens with **detritus** like dead leaves, insects and feces. In 1994 a team of four biologists, Ulrich G. Mueller and Ted R. Schultz from Cornell University and Ignacio H. Chapela and Stephen A. Rehner from the

United States Department of Agriculture, analyzed the DNA of ant funguses. The common assumption that the funguses are all derived from a single strain, they found, was only half true.

- C 真菌种植的起源在进化史上似乎只有一次, 因为所有的园艺蚂蚁都属于一个种群, 并且都是第一个真菌种植者的后代。这种果蚁族有超过 200 个已知的种类, 它们被分成 12 组或 12 类。其中, 切叶蚁用新鲜的植被来养活自己的真菌园; 另外一种被称为低等果蚁的蚂蚁则因为巢穴较小, 种植技术更原始, 只能用枯叶、昆虫和粪便等碎屑来养活自己的真菌园。1994 年, 一个由四位生物学家组成的团队对蚂蚁真菌的 DNA 进行了分析。团队成员分别是来自康奈尔大学的乌尔里希·G·穆勒(Ulrich G. Mueller)和泰德·R·舒尔茨(Ted R. Schultz), 以及来自美国农业部的伊格纳西奥·H·查佩拉(Ignacio H. Chapela)和史蒂芬·A·雷纳(Stephen A. Rehner)。他们发现, 真菌都是来源于单一菌株的这一设想并不完全正确。

- D The leaf-cutters' fungus was indeed descended from a single strain, propagated clonally, or just by **budding**, for at least 23 million years. But the lower attine ants used different varieties of the fungus, and in one case a quite separate species, the four biologists discovered. Cameron R. Currie, a Ph.D. student in the University of Toronto, it seemed to Mr. Currie, resembled the monocultures of various human crops, that are very productive for a while and then succumb to some disastrous pathogen, such as the Irish potato blight. Monocultures, which lack the genetic diversity to respond to changing environmental threats, are sitting ducks for parasites. Mr. Currie felt there had to be a parasite in the ant-fungus system. But a century of ant research offered no support for the idea. Textbooks describe how leaf-cutter ants scrupulously weed their gardens of all foreign organisms. "People kept telling me, 'You know the ants keep their gardens free of parasites, don't you?'" Mr. Currie said of his efforts to find a hidden **interloper**.

- D 切叶蚁所种植的菌种确实来源于单一的菌株, 并且通过无性繁殖或出芽生殖的方式延续了至少 2300 万年之久。但四位生物学家发现, 低等果蚁是一个例外, 它们培育出了不同种类的真菌, 而且有别于单一菌株的真菌。多伦多大学的博士生卡梅隆·R·柯里(Cameron R. Currie)认为, 切叶蚁只种植一种真菌的做法相当于人类的单一作物制, 在一段时间内产量非常高, 但随后会死于一些灾难性的病原体, 就如爱尔兰的马铃薯晚疫病。单一栽培往往会因为缺乏基因的多样性来应对不断变化的环境威胁, 从而容易成为寄生虫攻击的目标。柯里先生认为在蚂蚁与真菌的体系中一定有寄生虫存在。但是这个想法在过去一个世纪对该蚂蚁的研究中并未得到任何证据支持。教科书描述了切叶蚁如何小心翼翼地铲除花园里所有的外来生物。“人们不断地告诉我: ‘你难道不知道蚂蚁会让寄生虫远离它们的园子吗?’”柯里先生说正在努力找出隐

藏的闯入者。

E But after three years of sifting through attine ant gardens, Mr. Currie discovered they are far from free of **infections**. In last month's issue of the Proceedings of the National Academy of Sciences, he and two colleagues, Dr. Mueller and David Mairoch, isolated several alien organisms, particularly a family of parasitic molds called Escovopsis. Escovopsis turns out to be a highly virulent pathogen that can devastate a fungus garden in a couple of days. It blooms like a white cloud, with the garden dimly visible **underneath**. In a day or two the whole garden is **enveloped**. "Other ants won't go near it and the ants associated with the garden just starve to death," Dr. Rehner said. "They just seem to give up, except for those that have rescued their larvae."

E 但经过三年对果蚁真菌园的仔细筛选,柯里先生发现蚂蚁的真菌园并不能避免被感染。在上个月出版的《美国国家科学院学报》中,他与两位同事米勒博士(Dr. Mueller)和戴维·马里奇(David Mairoch)分离出几个外来生物的菌种,特别是一种叫作 Escovopsis 的寄生霉菌族。结果证明 Escovopsis 霉菌是一种剧毒性病原体,它可以在几天之内毁灭一个真菌园。Escovopsis 霉菌爆发时像白色的云,园子在其笼罩下隐约可见,一两天内便会笼罩全国。“其他蚂蚁不会去靠近它,而这个园子内的蚂蚁会全部饿死,”雷纳(Rehner)博士说:“除了那些已经把幼虫拯救出来的蚂蚁外,其他蚂蚁似乎都放弃了(求生)。”

F Evidently the ants usually manage to keep Escovopsis and other parasites under control. But with any lapse in control, or if the ants are removed, Escovopsis will quickly burst forth. Although new leaf-cutter gardens start off free of Escovopsis, within two years some 60 percent become infected. The discovery of Escovopsis' role brings a new level of understanding to the evolution of the attine ants. "In the last decade, evolutionary biologists have been increasingly aware of the role of parasites as driving forces in evolution," Dr. Schultz said. There is now a possible reason to explain why the lower attine species keep changing the variety of fungus in their mushroom gardens, and occasionally domesticating new ones — to stay one step ahead of the **relentless** Escovopsis.

F 显然,蚂蚁通常能够将 Escovopsis 霉菌和其他寄生生物控制住。但一旦在控制过程中出现任何失误或者蚂蚁被撤离, Escovopsis 霉菌将迅速爆发。即使新建的切叶蚁真菌园开始时不会出现 Escovopsis 霉菌,但两年内 60% 的真菌园又会被感染。对 Escovopsis 霉菌作用的发现使得科学家们对果蚁的进化有了新的理解。“在过去的十年中,进化生物学家已经越来越意识到寄生虫在进化中的驱动力作用,”舒尔茨博士说。现在有一个似乎合理的理由可以解释为什么低等果蚁会不断改变蘑菇园中的真菌品种,

偶尔还会培育出新的真菌品种——这是为了在与无情的 Escovopsis 霉菌的对抗中占据上风。

G Interestingly, Mr. Currie found that the leaf-cutters had in general fewer alien molds in their gardens than the lower attines, yet they had more Escovopsis infections. It seems that the price they pay for cultivating a pure variety of fungus is a higher risk from Escovopsis. But the leaf-cutters may have little **alternative**: they cultivate a special variety of fungus which, unlike those grown by the lower attines, produces nutritious swollen tips for the ants to eat.

G 有趣的是，柯里先生发现切叶蚁真菌园里的外来霉菌总体上比低等果蚁的少，但是它们更容易受到 Escovopsis 霉菌的感染。似乎，它们为培养出纯种真菌所付出的代价就是更容易受到来自 Escovopsis 霉菌的威胁。但切叶蚁可能别无选择：它们培育出的这种特殊真菌跟低等果蚁所培育出的不同，这种特殊真菌能够产出有营养的鼓包供蚂蚁食用。

H Discovery of a third partner in the ant-fungus symbiosis raises the question of how the attine ants, especially the leaf-cutters, keep this dangerous interloper under control. Amazingly enough, Mr. Currie has again provided the answer. “People have known for a hundred years that ants have a whitish growth on the cuticle,” said Dr. Mueller referring to the insects’ body surface. “People would say this is like a cuticular wax. But Cameron was the first one in a hundred years to put these things under a microscope. He saw it was not inert wax. It is alive.” Mr. Currie discovered a specialised patch on the ants’ cuticle that harbours a particular kind of **bacterium**, one well known to the pharmaceutical industry, because it is the source of half the antibiotics used in medicine. From each of 22 species of attine ant studied, Mr. Cameron and colleagues isolated a species of *Streptomyces* bacterium, they reported in *Nature* in April. The *Streptomyces* does not have much effect on ordinary laboratory funguses. But it is a potent poisoner of Escovopsis, inhibiting its growth and suppressing spore formation. Because both the leaf-cutters and the lower attines use *Streptomyces*, the bacterium may have been part of their symbiosis for almost as long as the Escovopsis mold. If so, some Alexander Fleming of an ant discovered antibiotics millions of years before people did. Even now, the ants are accomplishing two feats beyond the powers of human technology. The leaf-cutters are growing a monocultural crop year after year without disaster, and they are using an antibiotic apparently so wisely and **prudently** that, unlike people, they are not **provoking** antibiotic **resistance** in the **target** pathogen.

H 在蚂蚁真菌共生体中存在第三方的发现引发了对果蚁，尤其是对切叶蚁如何控制危险的外来者的疑问。令人惊奇的是，柯里先生再次给出了答案。“一百年前人们就

已经知道蚂蚁表皮有白色的物质,”米勒博士这样说道,他指的是昆虫的表皮。“人们会说这种物质看上去就像一层表皮蜡。但作为这一百年来第一位把这种物质放在显微镜下观察的人,卡梅隆看到这不是惰性蜡,而是活性的。”柯里先生发现,蚂蚁的表皮上有一种特殊的斑点,其中隐藏着一种特殊的细菌。这种细菌对于制药行业来说是非常有名的,因为医学上使用的抗生素多半来源于此。卡梅隆先生和他的同事从他们所研究的 22 种果蚁身上分离出了一种链霉菌,并将此成果发表于 4 月份的《自然》杂志上。链霉菌对普通的实验室真菌并没有太大影响,但它却是 Escovopsis 霉菌的强力毒杀者,能够有效抑制 Escovopsis 霉菌的生长和孢子的生成。由于切叶蚁和低等果蚁都使用链霉菌,这种细菌可能是它们共生的一部分,并且几乎与 Escovopsis 霉菌共生的时间一样长。如果是这样,那蚂蚁界的亚历山大·弗莱明就先于人类数百万年发现了抗生素。即便到现在,蚂蚁也正在完成两项超越人类技术水平的成果。切叶蚁年复一年地培育着单一菌类,并且无灾无难。此外,它们使用抗生素的方式显然比人类更为明智和谨慎。因为,与人类不同的是,它们没有目标病原体体内诱发抗生素耐药性。

## Reading Passage 3. Honey Bees in Trouble

### 词汇详解

**ailment** *n.* 小病; 不安 (近义词: tension, unrest。ill 和 sick 都有“生病的, 有病的”之意, 但用法并不完全相同。ill 表示“生病的, 有病的”这一意思时, 一般用作表语, 不能作定语; 而 sick 既可以作表语又可以作定语。例如, “病人”可以说“a sick man”或“the sick”, 但不能说“an ill man”或“the ill”。)

**sterile** *adj.* 不育的; 无菌的; 贫瘠的; 不毛的; 枯燥乏味的 (在本文中, “fields will be sterile”强调的是“土地的贫瘠”。)

**collapse** *v.* 倒塌; 瓦解; 暴跌 *n.* 倒塌; 失败; 衰竭 (近义词: fall in, defeat, reverse。在本文中, “economies will collapse”指“经济将会陷入崩溃”。)

**scarce** *adj.* 缺乏的, 不足的; 稀有的 *adv.* 仅仅; 几乎不; 几乎没有 (阅读中常见的表示“缺乏”的短语: lack of。近义词: rare, short, insufficient, deficient。词组“make oneself scarce”意为“溜走”。)

**organophosphate** *n.* 有机磷酸酯 (肥料) *adj.* 有机磷酸酯的

**scrub** *n.* 矮树; 擦洗; 擦洗者; 矮小的人 (或物) *v.* 用力擦洗; 使净化; 进行消毒 (在本文中强调“清理, 清除”之意。)

**roadside** *n.* 路边; 路旁 (这是一个合成名词, “road”表示“路”, “side”表示“边”, 合

在一起就是“路边”。这样的合成词还有 airport, “air”表示“天空”, “port”指“口岸”, 合在一起就是“机场”了。近义词: curb, wayside。)

**inhospitable** *adj.* 荒凉的; 冷淡的, 不好客的; 不适居留的(该词由否定前缀 in- 与词根 hospitable “适宜的”组合在一起, 意为“荒凉的”。由否定前缀 in- 组合而成的单词有: incorrect 不正确的; inability 无能, 无力。un- 也是表示否定的前缀。近义词: cold, wild, desert。在本文中表示“不适合居住”的意思。)

**pollinator** *n.* 传粉者, 传粉媒介, 传粉昆虫; 授花粉器

**familiarity** *n.* 熟悉, 精通; 亲密而不拘礼仪(词根为: familiar。衍生词汇有: familiarly 亲密地; familiarisation 亲密, 精通, 熟悉; familiarise 使熟悉。近义表达有: up on, acquainted with。)

**generalist** *n.* 通才; 多面手(近义词: versatile person, all-rounder。)

**resilience** *n.* 恢复力; 弹力; 适应力(近义词: elasticity, elastic force。)

**disrupt** *v.* 扰乱, 破坏; 瓦解; 中断; 使陷于混乱(近义词: destroy, tear, undermine, founder。)

**adequate** *adj.* 充足的; 适当的; 胜任的(常见短语: adequate for 对……足够的; adequate consideration 充分考虑; adequate preparation 充分准备。)

**efficient** *adj.* 有效率的; 有能力的; 生效的(名词形式: efficiency, 意为“效率, 效能”。efficiency 的近义词: virtue, potency。词组短语: high efficiency 高效率; production efficiency 生产效率; work efficiency 工作效率。)

**commercial** *adj.* 商业的; 营利的; 靠广告收入的 *n.* 商业广告(近义词: merchant。相关短语: commercial bank 商业银行; Industrial and Commercial Bank 工商银行; commercial value 市场价值。)

**suburb** *n.* 郊区; 城郊住宅区; 边缘(近义词: margin, banlieue。)

**patchwork** *n.* 拼缝物, 拼缀物; 混杂物(常见短语: fur patchwork 皮毛画, 外相画; tight patchwork 严密的拼缝; patchwork effect 拼接效果。作“混杂物”讲时, 近义词有: farrago, macedoine。)

## 题目详解

### Questions 27-30

#### 解答

27. 利用细节信息“United States”和顺序原则定位于原文第2段第4句“The total number of hives involved in the U.S. pollination industry has been somewhere between 2.5 million and 3 million in recent years.”原文指出在美国授粉产业使用的蜂巢总量在250万至300万之间, 数量庞大, 而题目信息“in a large scale”可与原文信息“2.5

million and 3 million”相对应。题目与原文内容相一致，所以答案为 YES。

28. 利用细节信息“clean farming practices”和顺序原则定位于原文第2段第5句“‘clean farming’ practices that scrubbed native vegetation from field margins and roadsides. These practices killed many native bees outright”。这里作者只提到了“清洁农业”对本地植物和本地蜜蜂有影响，而题目“Clean farming practices would be harmful to farmers’ health”是指“清洁农业”对农民的健康有危害，原文并没有提及相关的信息。因此无法在原文的基础上进行判断，所以答案为 NOT GIVEN。
29. 利用细节信息“blue orchard bee”定位于原文第5段。首先，该段第4句“On the other hand, native bees can be much more efficient pollinators of certain crops than honeybees”特别强调了本地蜜蜂的高效率只针对某些农作物“certain crops”，而不是针对所有农作物“every crop”，所以同属本地蜜蜂的“blue orchard bee”的高效率也只体现在特定农作物上，而非所有的农作物。其次，本段第5句也只是提到“about 750 blue orchard bees...can pollinate a hectare of apples or almonds”，即“blue orchard bee”在苹果树和杏树授粉方面的高效率。题目信息与原文信息相矛盾，所以答案为 NO。
30. 利用顺序原则和细节信息“protect”定位于原文第7段末句“In other words, ‘pollinator-friendly’ farming practices would not only aid pollination of agricultural crops, but also serve as a key element in the over all conservation strategy for wild pollinators, and often aid other wild species as well.”作者指出“传粉者友好型”的农业实践不仅能保护本地授粉者，还能帮助到其他的野生物种。题目中的“protect native bees”和“beneficial to other local creatures”分别对应原文中的“conservation strategy for wild pollinators”和“aid other wild species”。题目信息与原文信息表达一致，所以答案为 YES。

### Questions 31-35

#### 解答

31. 利用细节信息“Fruitless Fall”定位于原文第2段末句“Concern about these practices and their effects on pollinators isn’t new...Rachel Carson warned of a ‘Fruitless Fall’ that could result from the disappearance of insect pollinators.”原文大意是说传粉者的消失可能导致颗粒无收的现象，这个信息对应选项 B “impacts of losing insect pollinators”。因此，正确答案为 B。
32. 利用细节信息“modern agricultural system”和顺序性原则定位于原文第3段第2句“the bees’ biology is in many ways suited to the kind of agricultural system that was emerging”，题目中的“modern”和原文中的“emerging”是同义表达。下一句话接着讲述“honeybee hives can be closed up and moved out of the way when pesticides are applied to a field”，也就是说人工养殖蜜蜂的蜂巢可以在喷洒农药时关闭并转移到其他地方。这个信息



对应选项 C “Honeybee hives can be protected from pesticides”。因此，正确答案为 C。

33. 利用细节信息 “factories” 和 “assembly lines” 及顺序性原则定位于原文第 3 段末句 “But that system is also vulnerable, because making a farm field into the photosynthetic equivalent of a factory floor, and pollination into a series of continent-long assembly lines, also leaches out some of the resilience characteristic of natural ecosystems.” 这里作者强调了由于把农田变成了进行光合作用的工厂车间，把蜜蜂授粉变成了一条装配生产线，并且削弱了自然生态系统的恢复能力，所以现代工业化农业体系非常脆弱，这是该农业体系的缺点。这个信息对应选项 A “one drawback of the industrialised agricultural system”。因此，正确答案为 A。
34. 利用细节信息 “6th paragraph” 定位到原文第 6 段。题目中的 “Winfree’s experiment proves” 对应该段倒数第 1、2 句 “In another study focusing specifically on watermelon...native bees alone could provide sufficient pollination at 90 percent of the 23 farms studied. By contrast, honeybees alone could provide sufficient pollination at only 78 percent of farms.” 这两句话的大意是在 Winfree 对西瓜的研究中，本地蜜蜂完成了 90% 的农场的充分授粉，而人工养殖蜜蜂只完成了 78%。这个信息对应选项 D “wild bees work more efficiently as a pollinator than honeybees in certain cases”。因此，正确答案为 D。
35. 根据题目信息 “suggest in the last paragraph” 定位到原文末段。本题属于归纳总结的题型，需要阅读整段，然后再利用排除法对选项一一进行判断。选项 A 中的 “honeybees” 虽然在原文末段有提到，但是该段第 3、4 句 “For some small-scale farms, native bees may indeed be all that’s needed. For larger operations, a suite of managed bees — with honeybees filling the generalist role and other, native bees pollinating specific crops” 说的是在小农场，使用本地蜜蜂就足够了，而如果在农场，人工养殖的蜜蜂可适用于大部分农作物的授粉，本地的蜜蜂则为一些特定的农作物授粉。而选项 A “the importance of honeybees in pollination” 只强调了人工养殖蜜蜂的重要性，属于以偏概全，所以排除。选项 B “the adoption of different bees in various sizes of agricultural system” 与之前的分析一致，即应该根据农场的大小灵活选择人工养殖蜜蜂和野生蜜蜂，可以先待选。选项 C “the comparison between the intensive and the rarefied agricultural system” 在原文末段并未提及，所以排除。选项 D “the reason why farmers can rely on native pollinators” 虽然在原文末段倒数第 2 句略有提及，但是只强调了依赖野生传粉者，信息不全面，并不符合本段的中心思想，所以也应该排除。综上所述，正确答案为 B。



## Questions 36-40

## 解答

36. 利用细节信息“colony collapse disorder”定位于原文第1段第2句“Without honeybees, the story goes, fields will be sterile, economies will collapse, and food will be scarce.”这里说到蜂群衰竭失调症导致了大量蜜蜂的死亡，而蜜蜂的消失会使农田变得贫瘠，使经济陷入崩溃，使食物变得匮乏。原文中的“fields will be sterile, economies will collapse”对应选项B中的“severe consequences to both commerce and agriculture”，所以正确答案为B。
37. 利用细节信息“Freitas”定位到原文第4段第2句“In effect, by developing an agricultural system that is heavily reliant on a single pollinator species, we humans have become riskily overspecialised.”这里表明，严重依赖单一授粉者的农业体系会造成过度专门化。此外，该段末句“when the human-honeybee relationship is disrupted, as it has been by colony collapse disorder, the vulnerability of that agricultural system begins to become clear”提及这种过度专门化的农业体系的脆弱性开始显现。原文信息对应选项F“an agricultural system is fragile when relying on a single pollinator”，所以正确答案为F。
38. 利用细节信息“blue orchard bees”定位于原文第5段第5句“For example, about 750 blue orchard bees...can pollinate a hectare of apples or almonds, a task that would require roughly 50,000 to 150,000 honeybees.”这里指出750只“blue orchard bees”授粉的工作量大约需要50,000到150,000只“honeybees”才能完成。原文信息对应选项E“a large scale of honeybees are needed to pollinate”，所以正确答案为E。
39. 利用细节信息“Centris tarsata”定位于原文第5段末句“the native pollinator of wild cashew, can survive in commercial cashew orchards if growers provide a source of floral oils, such as by interplanting their cashew trees with Caribbean cherry”，这也就是说当提供了“加勒比樱桃树”，“Centris tarsata”这种本地授粉者就能在商业果园里存活下来。原文信息对应选项A“native pollinators can survive when a specific plant is supplied”，所以正确答案为A。
40. 利用细节信息“Delaware Valley”定位于原文倒数第2段。本题属于归纳总结的题型，需要阅读全段，然后再利用排除法对选项一一进行判断。由于原文并未提及蜜蜂不能繁殖的信息，所以选项C“honeybees can not be bred”可以直接排除。原文倒数第2段第2、3句“...there are opportunities for homeowners to get involved in bee conservation, too. The landscape is a bee-friendly patchwork that provides a variety of nesting habitat and floral resources...”讲到该地环境非常适合本地蜜蜂生存。另外，原文倒数第2段末句“In other words, ‘pollinator-friendly’ farming practices would not only aid

pollination of agricultural crops, but also serve as a key element in the over all conservation strategy for wild pollinators...”也提到了“传粉者友好型”的农业实践有利于保护野生蜜蜂。原文信息对应选项 D “some agricultural landscapes are favourable in supporting wild bees”，所以正确答案为 D。

## 参考译文

### Honey Bees in Trouble

#### 当人工养殖蜜蜂遇到麻烦

*Can native pollinators fill the gap?*

本地传粉者能否填补空缺？

Recently, ominous headlines have described a mysterious **ailment**, colony collapse disorder (CCD), which is wiping out the honeybees that pollinate many crops. Without honeybees, the story goes, fields will be **sterile**, economies will **collapse**, and food will be **scarce**.

最近，骇人听闻的新闻头条讲述了一种神秘的疾病——蜂群衰竭失调症（CCD）。这种病正在摧毁为许多农作物授粉的人工养殖蜜蜂。如果没有人工养殖的蜜蜂，事态的发展会演变为：农田变得贫瘠，经济陷入崩溃，食物也将短缺。

But what few accounts acknowledge is that what's at risk is not itself a natural state of affairs. For one thing, in the United States, where CCD was first reported and has had its greatest impacts, honeybees are not a native species. Pollination in modern agriculture isn't alchemy, it's industry. The total number of hives involved in the U.S. pollination industry has been somewhere between 2.5 million and 3 million in recent years. Meanwhile, American farmers began using large quantities of **organophosphate** insecticides, planted large-scale crop monocultures, and adopted “clean farming” practices that **scrubbed** native vegetation from field margins and **roadsides**. These practices killed many native bees outright — they're as vulnerable to insecticides as any agricultural pest — and made the agricultural landscape **inhospitable** to those that remained. Concern about these practices and their effects on pollinators isn't new, in her 1962 ecological alarm cry *Silent Spring*, Rachel Carson warned of a ‘Fruitless Fall’ that could result from the disappearance of insect **pollinators**.

但有些报道认为，这种状态并不是自然天灾所造成的。一方面，尽管美国是首先报道蜂群衰竭失调症的国家，而且所受影响最大，但人工养殖蜜蜂并不属于美国本地物种。授粉在现代农业中是一个正规行业，而不是“神奇的炼金术”。近几年来，参与美国授粉业的蜂箱总量已经在 250 万到 300 万之间。与此同时，美国农民开始大量使用有机磷杀虫剂，

大规模种植单一农作物，还采用“清洁农业”的做法，将田边到路旁的原生态植物都清理掉。这种做法立马残害了许多本地蜜蜂，它们和农业害虫一样容易受到杀虫剂的伤害。这种做法也把农田变得不再适合剩余的本地蜜蜂生存了。对这种做法及其对传粉者的影响的担忧早就存在。1962年，蕾切尔·卡逊(Rachel Carson)曾在她的生态警示类作品《寂静的春天》中提醒人们：昆虫传粉者的消失会导致“颗粒无收的秋天”。

If that ‘Fruitless Fall’ has not — yet — occurred, it may be largely thanks to the honeybee, which farmers turned to as the ability of wild pollinators to service crops declined. The honeybee has been semi-domesticated since the time of the ancient Egyptians, but it wasn’t just **familiarity** that determined this choice: the bees’ biology is in many ways suited to the kind of agricultural system that was emerging. For example, honeybee hives can be closed up and moved out of the way when pesticides are applied to a field. The bees are **generalist** pollinators, so they can be used to pollinate many different crops. And although they are not the most efficient pollinator of every crop, honeybees have strength in numbers, with 20,000 to 100,000 bees living in a single hive. “Without a doubt, if there was one bee you wanted for agriculture, it would be the honeybee,” says Jim Cane, of the U.S. Department of Agriculture. The honeybee, in other words, has become a crucial cog in the modern system of industrial agriculture. That system delivers more food, and more kinds of it, to more places, more cheaply than ever before. But that system is also vulnerable, because making a farm field into the photosynthetic equivalent of a factory floor, and pollination into a series of continent-long assembly lines, also leaches out some of the **resilience** characteristic of natural ecosystems.

如果秋天颗粒无收的情况还没有发生，那可能在很大程度上要归功于人工养殖的蜜蜂。因为当野生传粉者对农作物的服务能力下降时，农民便开始向人工养殖的蜜蜂求助。从古埃及时起，蜜蜂就被人们半驯化了。选择人工养殖的蜜蜂并不仅仅是因为对其熟悉，还因为人工养殖的蜜蜂在许多方面对新兴的农业体系具有适应性。例如，当使用杀虫剂时，人工养殖蜜蜂的蜂巢可以封闭起来，并搬离农药喷洒的区域。人工养殖的蜜蜂属于传粉者中的多面手，它们能为许多不同的作物授粉。虽然它们不是所有农作物最有效的授粉者，但却具有数量上的优势。一个蜂巢可养活20,000至100,000只蜜蜂。美国农业部的吉姆·柯恩(Jim Cane)说道：“毫无疑问，如果你想选择一种对农业有帮助的蜂族，那就是人工养殖的蜜蜂。”换句话说，人工养殖蜜蜂已经成为现代工业化农业体系中的一个关键环节。该农业体系可以为更多的地方提供更大量、更多种类的食物，价格也比以往更便宜。但该体系也非常脆弱，因为这相当于把农田变成了进行光合作用的工厂车间，而蜜蜂授粉则变成了一条装配生产线，从而削弱了自然生态系统的恢复能力。

Breno Freitas, an agronomist in Brazil, pointed out that in nature such a high degree of speciali-

sation usually is a very dangerous game: it works well while all the rest is in equilibrium, but runs quickly to extinction at the least disbalance. In effect, by developing an agricultural system that is heavily reliant on a single pollinator species, we humans have become riskily overspecialised. And when the human-honeybee relationship is **disrupted**, as it has been by colony collapse disorder, the vulnerability of that agricultural system begins to become clear.

巴西的农学家布雷诺·弗雷塔斯 (Breno Freitas) 指出, 在自然界中, 采用这样一个高度专业化的体系通常是非常危险的: 当一切都处在平衡状态时, 它能很好地运作; 而一旦出现细微的失衡, 该体系就会快速消亡。实际上, 如此严重依赖单一传粉者的农业体系已经使人类陷入过度专业化的险境之中。而当人与蜜蜂的关系遭到破坏时, 例如在蜂群衰竭失调症爆发的情形下, 该农业体系的脆弱之处也开始显现。

In fact, a few wild bees are already being successfully managed for crop pollination. "The problem is trying to provide native bees in **adequate** numbers on a reliable basis in a fairly short number of years in order to service the crop," Jim Cane says. "You're talking millions of flowers per acre in a two-to three-week time frame, or less, for a lot of crops." On the other hand, native bees can be much more **efficient** pollinators of certain crops than honeybees, so you don't need as many to do the job. For example, about 750 blue orchard bees (*Osmia lignaria*) can pollinate a hectare of apples or almonds, a task that would require roughly 50,000 to 150,000 honeybees. There are bee tinkerers engaged in similar work in many corners of the world. In Brazil, Breno Freitas has found that *Centris tarsata*, the native pollinator of wild cashew, can survive in **commercial** cashew orchards if growers provide a source of floral oils, such as by interplanting their cashew trees with Caribbean cherry.

事实上, 有些野生蜜蜂已经被成功驯化, 可以为农作物授粉。吉姆·柯恩说: “当谈及要在两至三周甚至更短的时间内, 为每英亩数以百万计的许多农作物的花授粉时, 难题是如何在短短几年内提供足量而且来源稳定的本地蜜蜂作为农作物的授粉工具。”另一方面, 由于本地蜜蜂可以比人工养殖蜜蜂更有效地为特定的农作物授粉, 因此也就无需那么多本地蜂蜜来参与授粉。例如, 只需大约 750 只蓝色果园壁蜂 (*Osmia lignaria*) 就可以为一公顷的苹果树或杏树授粉, 而同样的任务则大概需要 5 万到 15 万只人工养殖的蜜蜂才能完成。蜜蜂这种“能工巧匠”在世界各个角落从事着类似的工作。在巴西, 布雷诺·弗雷塔斯还发现, 如果种植者能提供一种花油的来源, 例如在腰果树之间种植加勒比櫻桃树, 那么野生腰果的本地传粉者膜翅目蜜蜂 (*Centris tarsata*) 就可以在商业腰果园里存活。

In certain places, native bees may already be doing more than they're getting credit for. Ecologist Rachael Winfree recently led a team that looked at pollination of four summer crops (tomato,

watermelon, peppers, and muskmelon) at 29 farms in the region of New Jersey and Pennsylvania. Winfree's team identified 54 species of wild bees that visited these crops, and found that wild bees were the most important pollinators in the system: even though managed honeybees were present on many of the farms, wild bees were responsible for 62 percent of flower visits in the study. In another study focusing specifically on watermelon, Winfree and her colleagues calculated that native bees alone could provide sufficient pollination at 90 percent of the 23 farms studied. By contrast, honeybees alone could provide sufficient pollination at only 78 percent of farms.

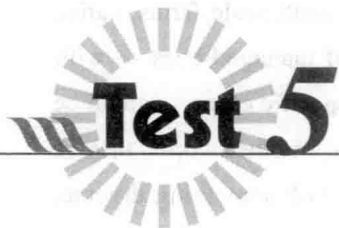
在某些地方，本地蜜蜂的贡献也许已经超过了它们所获得的好评。生态学家瑞秋·温弗瑞 (Rachael Winfree) 最近带领了一个团队在新泽西州和宾夕法尼亚州的 29 个农场里观察四种夏季农作物 (番茄、西瓜、辣椒和甜瓜) 的授粉情况。温弗瑞的团队确定了 54 种前来为这些农作物授粉的野生蜜蜂，并发现它们是该农业体系中最重要传粉者：尽管许多农场都有人工养殖的蜜蜂，但野蜂的授粉量占总授粉量的 62%。在另一项以西瓜为重点的研究中，温弗瑞和她的同事对 23 个农场进行了监测，统计出单靠本地蜜蜂就可以提供充足授粉量的农场占总数的 90%。相比之下，单靠人工养殖蜜蜂就可以提供充足授粉量的农场只占总数的 78%。

"The region I work in is not typical of the way most food is produced," Winfree admits. In the Delaware Valley, most farms and farm fields are relatively small, each farmer typically grows a variety of crops, and farms are interspersed with **suburbs** and other types of land use which means there are opportunities for homeowners to get involved in bee conservation, too. The landscape is a bee-friendly **patchwork** that provides a variety of nesting habitat and floral resources distributed among different kinds of crops, weedy field margins, fallow fields, suburban neighborhoods, and semi natural habitat like old woodlots, all at a relatively small scale. In other words, "pollinator-friendly" farming practices would not only aid pollination of agricultural crops, but also serve as a key element in the over all conservation strategy for wild pollinators, and often aid other wild species as well.

“在我研究的地区，他们的农耕方式并不像大部分食物的种植方式那样典型，”温弗瑞承认道。在德拉瓦河谷，大多数农场和农田相对较小，每个农户通常会种植多种农作物，而且农场都分散在城郊住宅区和其他类型的用地之间，这意味着房主也有机会参与蜜蜂的保护。这里的环境非常适合蜜蜂的生长，各种较小规模、形形色色的蜜蜂栖息地与花卉资源就分布在不同种类的农作物、杂草丛生的田边、休耕地、郊区周边和半自然的古老植林地之中。换句话说，这种“传粉者友好型”的农业活动不仅有助于农作物授粉，而且也是保护野生传粉者总战略中的关键因素，同时还有利于其他野生物种。

Of course, not all farmers will be able to implement all of these practices. And researchers are suggesting a shift to a kind of polyglot agricultural system. For some small-scale farms, native bees may indeed be all that's needed. For larger operations, a suite of managed bees — with honeybees filling the generalist role and other, native bees pollinating specific crops — could be augmented by free pollination services from resurgent wild pollinators. In other words, they're saying, we still have an opportunity to replace a risky monoculture with something diverse, resilient, and robust.

当然，并不是所有农民都能如此开展农业活动。研究人员建议采用一种多元化的农业体系。对于一些小规模农场，本地蜜蜂的确能够满足需求。而大规模的农场可以采用一套蜜蜂之间相互搭配的模式，即人工养殖蜜蜂充当授粉多面手（普适性授粉），其他本地蜜蜂则为特定农作物授粉，这种模式能够通过重获生机的野生蜜蜂的自由授粉活动增强整体产能。换句话说，研究人员认为，我们仍然有机会实现多样、灵活、健康的农业体系，进而取代危险的单一农业体系。



# Test 5

## Reading Passage 1. Ants Could Teach Ants

### 词汇详解

**transform** *v.* 使转变 (名词形式为 *transformation*。传说中的变形金刚就是 *transformers*。)

**subject** *n.* 研究对象 (典型的一词多义, 大多指研究对象, 如人类、猩猩、老鼠等。)

**forage** *v.* 觅食 *n.* 饲料 (该词若用于人类, 大多指原始人或处于未开化地区的人类的觅食行为。)

**presumably** *adv.* 据推测 (用于句子开头, 表示该句或该部分的信息为大家用常识和普通逻辑推导得到的。)

**memorise** *v.* 背诵, 记忆 (最常用于形容中国学生学习技能的一个词汇, 如背单词即 *to memorise words*。)

**bearing** *n.* 方位 (可同义替换 *direction*。该词经常一词多义, 还可以表示“关系”和“举止”。)

**tap** *v.* 轻触 (表示“轻轻一碰”; 另外, 其他含义还包括“开发”、“获取”、“打拍子”; 作名词多意为“水龙头”。)

**antennae** *n.* 触角 (常用于指昆虫的触角。章鱼的触手为 *tentacle*, 两者勿混。antennae 还表示“天线”。)

**prompt** *v.* 催促 (多用于表示“激发某事的发生”之意。作形容词时表示“果断的, 迅速的”之意。)

**literally** *adv.* 确实地, 真正地 (常用于口语, 用来加强语气, 意为“简直”。形近词为 *literate*, 表示“有读写能力的”; *literate* 的反义词为 *illiterate*, 意为“文盲的”, 常在阅读中出现。)

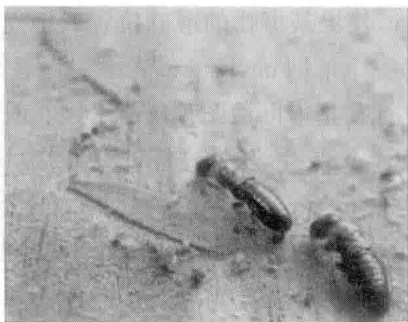
**in one's own right** 凭本身的权利、资格等 (She's a peeress in her own right, i.e. not merely by marriage to a peer. 她本身就是贵族, 并非因嫁给了贵族。)

**tandem** *n.* (双人或多人骑的) 串联式自行车 (见图 1) (在原文里 *tandem running* 特指蚂蚁的串联奔跑, 即蚂蚁一个挨着一个前后跑, 见图 2, 也就是随从者跟着领路者觅食的队形。)





(图 1)



(图 2)

**bidirectional** *adj.* 双向的 (directional 意为“方向的”; 名词 direction 意为“方向”; bi- 是表示“双”的前缀, -al 是常见的形容词后缀, 所以三者合起来为“双向的”。)

**come at a cost** 为了实现某事需要付出一定的代价 (固定搭配)

**hamper** *v.* 束缚 (某人), 妨碍 (某人或某事) (可同义替换成 block, impede 等。)

**deliberately** *adv.* 故意地, 蓄意地 (等同于 intentionally 或词组 on purpose。)

**pass...on to...** 传递给, 传授给 (常指传授知识或技能, 所以经常可以替换为 impart。)

**potentially** *adv.* 潜在地 (形容词和名词形式均为 potential, 是阅读常见词汇, 作名词时, 经常和 explore 或 tap out 搭配, 指“开发潜能”。)

**valid** *adj.* 有效的; 符合逻辑的 (当说到一个理论或一个假说、猜想时, 常表示“说得通的, 站得住脚的”。)

**commonplace** *adj.* 平常的, 不引起注意的 (常作贬义) *n.* 常见的现象, 司空见惯的事 (Air travel is a commonplace nowadays. 现在坐飞机是平常事。)

**presence** *n.* 存在, 出席, 在场 (若 present 的重读在第一个音节, 可能是名词, 意为“礼物”, 即 gift, 也可能是形容词, 表示“在场的, 出席的”; 若重音在第二个音节, 则作动词用, 意为“提出”或“赠予”。)

**predator** *n.* 捕食者, 食肉动物 (近义词 carnivore。还可引申出另外一个名词 prey, 意为“被捕食的动物, 受害者”, 常见句子为 A is prey to B, 即 A 是 B 的猎物。)

**incur** *v.* 引致, 招致, 带来, 遭受 (incur debts 负债; incur great expenses 产生巨额费用; incur sb's anger 惹某人生气。由此可见招来的往往是不好的东西。单词 incurable 并不是其形容词形式, 所以需要单独记忆, 意思是“不能治愈的, 无可救药的”, 可通过否定前缀 in-、表示“治愈”的词根 cure、表示“可以……的”的形容词后缀 -able 来记, 注意 cure 中的字母 e 是省略的。)

**cub** *n.* 幼兽

**gazelle** *n.* 瞪羚 (注意拼写和大猩猩 gorilla 相似。)

**trip** *v.* 绊倒, 绊; 使跌倒

**facilitate** *v.* 促进; 使容易 (可同义替换为 promote, prompt, foster, cultivate 等。)



**locate** *v.* 找出某事物的准确位置或地点（文中指找到食物所在。要注意考试中经常还会出现另一个单词 **navigate**，表示“测定位置或路线”、“导航”等，它和 **locate** 不同的地方在于它往往指借助地图和仪器来领航或锁定位置。）

**instinctive** *adj.* 天生的，本能的（名词为 **instinct**“本能”。这个单词很容易和 **instructive** 搞混，后者是 **instruction**“教导，说明”的形容词形式，意为“有益的，提供丰富知识的”。）

**abdomen** *n.* 腹部（同义词为 **belly**。剑桥真题的听力中还曾用过 **underside** 这个词来指 **Asiatic lion** 的腹部。）

**only to find...**（结果）却发现（引导宾语从句，阅读中常常用在描述实验结果上。）

**wrath** *n.* 怒气，怒火（等同于 **extreme anger**。形容词为 **wrathful**“暴怒的”，可以同义替换为 **furious**。）

**occurrence** *n.* 事情，事件，发生的事（其动词形式为我们熟知的 **occur**。同样意为“事件”，**event** 尤指“重大事件”，而 **incident** 常指“不太重要的事情”或“小事”，**occurrence** 为中性词，并不特指某类型的事情，考生需注意辨析。）

**determine** *v.* 确定，决定（形容词形式为 **determined**“有决心的，坚决的”，名词形式为 **determination**“决心”。）

**constraint** *n.* 约束，强制（同义词有 **limit**, **restriction** 等。动词形式为 **constrain**；**constrained** 为其形容词形式，意为“受束缚的，不自然的”。）

**bark up the wrong tree** 找错人，弄错对象（习语。据记载，该习语源于 17 世纪美国殖民地时期。当时的美洲人烟稀少，开发西部的拓荒者靠打猎为生。狩猎需要猎狗，不过，再聪明的猎狗有时也会被猎物耍弄。比如，浣熊常常昼伏夜出，到了夜里，它悄悄爬到别的树上，让猎狗误认为它还躲在空树洞里睡觉。结果，猎狗对着错误的目标狂吠不已，即“to bark up the wrong tree”。）

**underlie** *v.* 构成（某人行动、理论等）的基础；作（某事物）的说明或解释（形容词形式为 **underlying**，表示“潜在的，含蓄的；基础的；在下面的”；**underlying reason** 意为“内在原因”。）

**cognitive** *adj.* 认知的（名词形式为 **cognition**。在涉及动物类话题时，经常讨论的点便是动物是否像人类一样有认知。**cognition** 的定义为：action or process of acquiring knowledge, by reasoning or by intuition or through the senses，也就是说“通过推理、直觉或感官来获取知识的行为或过程即为认知”。）

## 题目详解

### Questions 1-5

#### 思路

此类为典型的人名与理论匹配题。题目为所提出的理论，选项为具体的研究者名字，要

求进行匹配。此类题型大多数不按原文顺序出题。操作上,一般建议考生先画出原文中所有大写人名,再画出人名附近所有表达观点的句子,如段落主题句或引号中的观点句,最后将这些句子与题目进行比较,得出答案。

### 解答

1. 题目关键信息为“use objects to locate food”,对应原文第6段末句中“...birds watching other birds using a stick to locate food...”。题目中的“objects”与原文的“stick”替换,“locate food”为原词重现,对应本段的研究者名字为 Tim Caro, 所以选 C。
2. 题目关键信息为“two-way, interactive teaching”,对应原文第2段第1句中“involves bidirectional feedback”以及“an example of teaching”。其中“two-way/interactive”均对应“bidirectional(双向的)”这一概念,对应本段的研究者名字为 Nigel Franks, 所以选 A。
3. 题目关键信息为“risky to say ants can teach”以及“like human beings do”,对应原文第9段中第2句“He warned that scientists may be barking up the wrong tree when they look not only for examples of humanlike behaviour among other animals but humanlike thinking that underlies such behaviour”。其中题目中的“risky to say”对应原文中的“warn”,题目中的“like human beings do”对应原文中的“humanlike behaviour”。对应本段的研究者名字为 Bennet Galef Jr., 因此选 D。
4. 题目关键信息为“Ant leadership”以及“finding food faster”,对应原文第4段中第2句“With the guidance of leaders, ants could find food faster...”。其中题目中的“Ant leadership”对应原文中的“guidance of leaders”。对应本段的研究者名字为 Franks, 即 Nigel Franks, 因此选 A。
5. 题目关键词为“communication”和“not entirely teaching”,对应原文第5段末句“This happens throughout the animal kingdom, but we don't call it teaching, even though it is clearly transfer of information.”其中题目中的“communication”对应原文中的“transfer of information”,题目中的“not entirely teaching”对应原文中的“we don't call it teaching”,对应本段的研究者名字为 Hauser, 即第3段中出现的 Marc Hauser, 所以选 B。

### Questions 6-9

### 思路

该题型为多选题。一般而言,此类题型抑或提问全篇重点信息,或集中考查某段细节内容。该题属于前者,因其提问为“全文提到哪4种动物行为?”

### 解答

选项 A 本项关键信息包括“touch each other”和“antenna”。从题意上看,原文应该要

提到蚂蚁用触角互相接触并传递信息, 对应第 1 段第 4 句 “Once a follower got its bearings, it tapped the leader with its antennae”, 因此选项 A 符合题意。

**选项 B** 本项关键信息为 “alert others” 和 “danger”。对应第 5 段 Hauser 给出的例子 “Consider a species, for example, that uses alarm calls to warn fellow members about the presence of a predator.” 其中题目中的 “alert others” 对应原文中的 “warn fellow members”, 题目中的 “danger” 对应原文中的 “the presence of a predator (猎食者, 天敌)”, 因此选项 B 符合题意。

**选项 C** 意为 “从猎食者处逃跑”, 虽然原文第 5 段也有提及, 但重点在于 “警告同类, 好让同类可以逃跑”, 却没有详细说明同类逃跑的这一行为, 故实际上未提及, 应排除该选项。

**选项 D** 意为 “保护幼崽”。虽然原文第 6 段提及带领幼崽打猎的行为, 但实际上并未谈到有什么天敌来侵扰, 也没有提及成年动物保护幼崽的行为之类的信息, 故应排除该选项。

**选项 E** 意为 “替幼崽捕食” 或 “为幼崽猎食”, 对应第 6 段第 2 句 “...cheetah mothers that take their cubs along on hunts gradually allow their cubs to do more of the hunting...killing a gazelle and allowing young cubs to eat...”, 意为 “猎豹母亲带幼崽打猎时, 会逐渐让幼崽承担更多的打猎职责”。这意味着在这段时期的早期, 猎豹母亲还是以自己打猎为主, 以哺育幼崽, 故符合选项的意思, 选项 E 符合题意。

**选项 F** 意为 “互相争斗”, 全文无提及, 应排除该选项。

**选项 G** 意为 “使用诸如树枝一类的工具”, 对应第 6 段末句中 “...birds watching other birds using a stick to locate food...”。其中原文中的 “stick (棍子)” 对应题目中的 “tools like twigs (诸如树枝的工具)”, 因此选项 G 符合题意。

**选项 H** 意为 “吃各种食物”, 全文无提及, 应排除该选项。

综上所述, 6-9 题的正确答案为 A, B, E, G。

### Questions 10-13

#### 思路

该题型为是非无题。要注意先细看题目, 再看原文。从原文中找到题目里的关键概念, 以此作为选择的依据。若所有关键概念都存在于原文, 且都成立, 则选 TRUE/YES; 若有一个关键概念存在于原文, 但被推翻, 则选 FALSE/NO; 若有一个关键概念不存在于原文, 则选 NOT GIVEN。

#### 解答

10. 题目关键概念包括 “only” 和 “one-way communication”。原文对应处为第 2 段首

句 “Tandem running is an example of teaching, to our knowledge the first in a non-human animal, that involves bidirectional feedback between teacher and pupil.” 其中题目中的 “only one-way communication” 的概念在原文中被 “bidirectional feedback” 推翻, 故选 NO。

11. 题目关键概念包括 “got many supporters” 和 “immediately after publicity”。原文对应处为第 2、3、4、5 段, 虽然第 4 段末句 “His ideas were advocated by the students...” 中提到 “他的观点获得了……学生的拥护和支持”, 但此处提到的学生仅仅是指那些 “参与了 video project” 的学生, 与题目中 “many supporters” 这一概念不符。另外, 原文也没有提及是否是 “immediately after publicity”。此路不通, 有同学则认为, 如果找到 “反对者” (如第 3 段 “another educator questioned it” 和第 5 段 “Opposing views still arose”) 就足以推翻 “supporters”。但是, 仔细思考, 任何事物都可以既有 supporters, 也同时有 opponents, 这二者并不是非此即彼的关系。故 “many supporters” 的概念未被打破, 题目在原文的基础上无法判断, 所以选 NOT GIVEN。
12. 本题较为特殊, 考查的是宏观重点信息, 而非具体的细节信息。其题干意为 “蚂蚁的教学行为与人类相同”。全文中, 有的人认为蚂蚁能 teach, 有的人则认为蚂蚁不能 teach, 它们仅仅能够 transfer information, 而不能像人类一样 teach。但是, 这个争论到最后也没有一个明确的结论。故而题目在原文的基础上无法判断, 所以选 NOT GIVEN。
13. 题目关键概念包括 “share hunting gains” 和 “to younger ones”。对应第 6 段第 2 句猎豹妈妈带幼崽一起打猎的信息。其中原文中的 “cheetah mothers...killing a gazelle and allowing young cubs to eat” 对应题目中的 “share hunting gains to younger ones”, 故选 YES。

## 参考译文

### Ants Could Teach Ants

#### 蚂蚁的教学

The ants are tiny and usually nest between rocks in the south coast of England. **Transformed** into research **subjects** at the University of Bristol, they raced along a tabletop **foraging** for food — and then, remarkably, returned to guide others. Time and again, followers trailed behind leaders, darting this way and that along the route, **presumably** to **memorise** landmarks. Once a follower got its **bearings**, it **tapped** the leader with its **antennae**, **prompting** the lesson to **literally** proceed to the next step. The ants were only looking for food, but the researchers said the careful way the leaders led followers — thereby turning them into leaders **in their own right** — marked the *Temnothorax albipennis* ant as the very first example of a non-human animal exhib-

iting teaching behaviour.

蚂蚁体型微小，通常在英国南部海岸的岩石缝隙中筑巢。布里斯托大学将蚂蚁作为研究对象，让它们在一个桌面上奔跑着寻找食物——之后，令人惊奇的是，它们返回原处引导其他蚂蚁（寻找食物）。一次又一次，蚂蚁跟随者跟在蚂蚁领路者的后面，沿着路线来回奔跑，似乎在记忆路标。一旦蚂蚁跟随者明确自己的方位，它就会用触角轻轻触碰蚂蚁领路者，催促对方进入下一步行动。蚂蚁们这么做仅仅是在寻找食物，但研究者称领路蚂蚁精心引导蚂蚁跟随者的做法——由此将它们转化为领路者——标志着 *Temnothorax albipennis* 蚂蚁是第一例展现教学行为的非人类动物。

“**Tandem** running is an example of teaching, to our knowledge the first in a non-human animal, that involves **bidirectional** feedback between teacher and pupil,” remarks Nigel Franks, professor of animal behaviour and ecology, whose paper on the ant educators was published last week in the journal *Nature*.

“蚂蚁的前后跑是一种教学行为的例子，这是人类所知的第一个非人类动物事例，其间涉及师生间的双向反馈，”动物行为及生态学教授奈杰尔·弗兰克斯（Nigel Franks）如此评述。上周他在《自然》杂志上发表了一篇关于蚂蚁作为教育者的论文。

No sooner was the paper published, of course, than another educator questioned it. Marc Hauser, a psychologist and biologist and one of the scientists who came up with the definition of teaching, said it was unclear whether the ants had learned a new skill or merely acquired new information.

当然，文章一经发表，便立刻引起另一位教授的质疑。心理学家兼生物学家马克·豪泽（Marc Hauser）是对教学进行定义的科学家之一。他说蚂蚁是习得了一项新技能还是仅仅获得了新信息，尚不明确。

Later, Franks took a further study and found that there were even races between leaders. With the guidance of leaders, ants could find food faster. But the help **comes at a cost** for the leader, who normally would have reached the food about four times faster if not **hampered** by a follower. This means the hypothesis that the leaders **deliberately** slowed down in order to **pass** the skills **on to** the followers seems **potentially valid**. His ideas were advocated by the students who carried out the video project with him.

随后弗兰克斯做了进一步研究，结果表明领路蚂蚁之间甚至还有竞赛。在领路者的带领之下，跟随者可以更快觅得食物。但领路蚂蚁本身在帮助指引时需付出一定代价，要知道在没有跟随者牵绊的情况下，它们获得食物的速度往往可以快三倍。这便意味着领路者故意放慢速度向跟随者传授技巧的假说有可能成立。一起参与该拍摄项目的学生便是

弗兰克斯这一观点的拥护者。

Opposing views still arose, however. Hauser noted that mere communication of information is **commonplace** in the animal world. Consider a species, for example, that uses alarm calls to warn fellow members about the **presence** of a **predator**. Sounding the alarm can be costly, because the animal may draw the attention of the predator to itself. But it allows others to flee to safety. “Would you call this teaching?” wrote Hauser. “The caller **incurs** a cost. The naive animals gain a benefit and new knowledge that better enables them to learn about the predator’s location than if the caller had not called. This happens throughout the animal kingdom, but we don’t call it teaching, even though it is clearly transfer of information.”

然而，反对意见依然没有平息。豪泽（Hauser）指出单纯的信息沟通在动物界是司空见惯的事。举例来说，设想一种动物，它会向同伴们发出警报，警告捕食者的出现。其实，发出警报的同时它也把自己暴露在危险之中，因为这会将捕食者的注意力吸引到自己身上。然而，这样却能让同伴逃过一劫。“你会把这种行为称作教学吗？”豪泽写道：“发警报的动物是要付出代价的，而它的同伴则能从中得益，警报声能让同伴掌握更多关于捕食者出没地点的信息。这在动物界是极为平常的现象，但我们并不称之为教学，即便其中包含明显的信息传递过程。”

Tim Caro, a zoologist, presented two cases of animal communication. He found that cheetah mothers that take their **cubs** along on hunts gradually allow their cubs to do more of the hunting — going, for example, from killing a **gazelle** and allowing young cubs to eat to merely **trip-ping** the gazelle and letting the cubs finish it off. At one level, such behaviour might be called teaching — except the mother was not really teaching the cubs to hunt but merely **facilitating** various stages of learning. In another instance, birds watching other birds using a stick to **locate** food such as insects and so on, are observed to do the same thing themselves while finding food later.

动物学家蒂姆·卡罗（Tim Caro）提供了两个有关动物沟通的案例。他发现猎豹妈妈常带着幼豹一起捕猎，并逐渐让其尝试自行猎取食物。举例来说，一开始猎豹妈妈会先猎杀瞪羚，然后让幼豹食用，之后成年猎豹只会绊倒瞪羚，然后将后续的任务交给幼豹来完成。从某种程度上讲，这种行为可以被看作是教学——但是猎豹妈妈并不是真的在教幼豹如何捕猎，而仅仅是在学习的不同阶段起促进作用。在另一个例子中，那些观察其他鸟儿如何用棍子来寻找昆虫等食物的鸟儿会在随后的觅食行动中效仿这种行为。

Psychologists study animal behaviour in part to understand the evolutionary roots of human behaviour, Hauser said. The challenge in understanding whether other animals truly teach one

another, he added, is that human teaching involves a “theory of mind” — teachers are aware that students don’t know something. He questioned whether Franks’s leader ants really knew that the follower ants were ignorant. Could they simply have been following an **instinctive** rule to proceed when the followers tapped them on the legs or **abdomen**? And did leaders that led the way to food — **only to find** that it had been removed by the experimenter — incur the **wrath** of followers? That, Hauser said, would suggest that the follower ant actually knew the leader was more knowledgeable and not merely following an instinctive routine itself.

心理学家们研究动物行为一定程度上是为了了解人类行为的进化根源，豪泽如是说。理解其他动物之间是否真正存在教学行为的难点在于人类教学涉及“心智”——老师知道学生有不会的东西。他质疑弗兰克斯实验里的领路蚁是否真的意识到蚂蚁跟随者一无所知。当感知到跟随者触碰其腿或腹部的时候，它们有没有可能只是出于本能地前行？而当领路蚁指引跟随者前往食物所在地，却发现食物已被实验者挪走时，领路蚁会否引发跟随者的怒火？豪泽说如果会引发怒火，那就说明蚂蚁跟随者确实知道领路者更“博学”，而不只是遵循本能或者“例行公事”。

The controversy went on, and for a good reason. The **occurrence** of teaching in ants, if proven to be true, indicates that teaching can evolve in animals with tiny brains. It is probably the value of information in social animals that **determines** when teaching will evolve, rather than the **constraints** of brain size.

对动物之间是否存在教学行为的争议从未停止，这是有原因的。蚂蚁教学若被证实是真的，那就表明大脑微小的动物也可以进化出教学能力。教学行为进化的时间也许不是由大脑的大小来决定的，而是由社会性动物的信息价值来决定的。

Bennett Galef Jr., a psychologist who studies animal behaviour and social learning at McMaster University in Canada, maintained that ants were unlikely to have a “theory of mind” — meaning that leaders and followers may well have been following instinctive routines that were not based on an understanding of what was happening in another ant’s brain. He warned that scientists may be **barking up the wrong tree** when they look not only for examples of humanlike behaviour among other animals but humanlike thinking that **underlies** such behaviour. Animals may behave in ways similar to humans without a similar **cognitive** system, he said, so the behaviour is not necessarily a good guide into how humans came to think the way they do.

小班尼特·格莱福（Bennett Galef Jr.）是加拿大麦克马斯特大学研究动物行为及社会习得的心理学家，他坚称蚂蚁不可能有“心智”——也就是说蚂蚁领路者和跟随者很有可能不是因为了解到对方心中所想而是出于本能地行动。他告诫说，科学家们在搜寻其他动物身上与人类相似的行为以及这种行为背后的人类思维模式时，可能盯错了目标。他还



补充道,即便没有类似的认知系统,动物也可能和人类有类似的行为表现,因此,动物的行为表现并不能真正帮助人们了解自身是如何思考的。

## Reading Passage 2. The Development of Plastics

### 词汇详解

**rubber** *n.* 橡胶,合成橡胶(常作定语,如 rubber car tyres “橡胶汽车轮胎”。作名词时还有“橡皮”的意思,也就是美语里的 eraser。)

**commercially** *adv.* 商业地,贸易地;从营利角度出发(去掉后缀 -ly 就是形容词形式 commercial,要特别注意 commercial 还可以作名词,指电视或广播中的“广告”。)

**commodity** *n.* 商品,货物(尤指国际贸易中的物品、产品或材料。)

**synthetic** *adj.* 合成的;人造的(作名词时表示“合成物”。)

**supersede** *v.* 代替、取代、接替(某事或某人)

**application** *n.* 应用,运用;申请,请求(动词形式是 apply,除了指“申请”和“运用”之外,也意为“涂,敷,搽”。比如 apply the glue to both surfaces 意为“两面都涂上胶水”。)

**polymer** *n.* 聚合物,聚合体(化学专业词汇)

**compound** *n.* 复合物,化合物(在文中同义替换 polymer。)

**molecule** *n.* 分子;微小颗粒(雅思阅读中常会出现它的形容词形式 molecular。)

**bonding** *n.* 结合,键合(此外,名词 bond 常常以复数形式出现,即 bonds,指“公债,国债”。)

**principle** *n.* 原则,原理(常和 law 同义替换。principal 是它的同音异义词,principal 作名词时意为“负责人,校长”,作形容词时是“主要的”意思。)

**polymerisation** *n.* 聚合作用,合成(是 polymer 的抽象名词形式。)

**underlie** *v.* 构成……的基础;位于或存在于……之下(形容词形式是 underlying,表示“潜在的,含蓄的;基础的;表面下的”。)

**replace** *v.* 代替(可同义替换为 substitute, supersede。名词形式为 replacement。)

**ivory** *n.* 象牙,象牙制品(材质类的词汇也需要同学们简单了解一些,比如 porcelain “瓷器”、earthenware “陶器”等在考古类的文章里经常会出现。)

**billiard ball** *n.* 台球(这里指美式台球,又称 pool。而 snooker “斯诺克”是英式台球。)

**celluloid** *n.* 赛璐珞(即“硝化纤维塑料”。)

**dissolve** *v.* 使(固态物)溶解为液体,溶解(另一个释义为“解散,解除”,如 dissolve a business partnership 表示“解除商业伙伴关系”。)

**carbohydrate** *n.* 碳水化合物(carbon 是“碳”,hydrate 是“水合物”,可以拆分记忆。我们经常看到的 CO<sub>2</sub> “二氧化碳”,英文全称叫作 carbon dioxide。)



**derive from** 来自，源于……（动词词组，可以同义替换成 stem from。）

**solution** *n.* 溶液，溶解状态；解决方法，答案（我们常常首先想到的是其“解决方案”的意思，但在这里明显是“溶液”的意思，我们需要通过上下文来确定词义。而其动词形式 solve 着重表示“解决困难，得到答案”，所以取“解决”之意，并可被替换成 tackle, address。而 dissolve 则是“溶解”的动词形式。）

**camphor** *n.* 樟脑

**ethanol** *n.* 乙醇，酒精（通过生物资源生产的燃料乙醇是一种生物燃料“biofuel”。）

**spectacle** *n.* 眼镜；奇观，壮观（表示“眼镜”的时候，常作复数。形容词形式为 spectacular “壮观的”。）

**frame** *n.* 框架，边框（spectacle frames 表示“眼镜框”。）

**get off the ground** 起飞；取得进展；迅速流行（动词词组。例如：We help small companies to get off the ground. 我们帮助一些小公司顺利起步。）

**thermoplastic** *n.* 热塑性塑料（热塑性是指物质在加热时能发生流动变形，冷却后可以保持一定形状的性质。thermo 表示“热的，和热有关的”，比如著名的保温杯品牌膳魔师就是 thermos 这个词音译得来的。）

**formaldehyde** *n.* 甲醛，福尔马林

**react** *v.* 发生相互作用，起化学反应（名词形式是 reaction；chemical reaction 就是“化学反应”的意思。）

**bakelite** *n.* 酚醛塑料

**thermoset** *n.* 热固塑料，热固树脂（是指在受热或其他条件下能固化或具有不溶或不熔特性的塑料，如酚醛塑料。）

**cast** *v.* 铸造，浇铸（我们在看外国影视作品的时候经常会看到 cast 这个词，这时它就是“演员阵容”的意思。）

**mould** *v.* 用模子做；使（软材料）成形（它也可以作名词，意为“铸模，模子”。美式拼写是“mold”。例如：Chiefly the mould of a man's fortune is in his own hands. 人的命运主要掌握在自己手中。）

**insulator** *n.* 绝缘，隔热或隔音等的物质或装置（形容词为 insulating “绝缘的，隔热的”；动词为 insulate “使绝缘，使隔离”。）

**resistant** *adj.* 有抵抗力的，抵抗的（动词为 resist “抵抗，抗拒；忍耐”。女孩减肥常常要抵御巧克力的诱惑，英文说法是“resist the temptation of chocolate”。）

**property** *n.* 属性，特性（它作为名词时，还常意为“财产，地产”。）

**switch** *n.* 开关（作动词时，就是“转变，转换”的意思。）

**component** *n.* 成分，组成部分；元件，部件，零件（automotive component 就是“汽车零部件”的意思。component 也可以作形容词，意为“组成的，合成的”。）

**string together** 把……串起来，连贯起来（动词词组。例如：The speaker strung together a

series of jokes. 演说者讲了一连串的笑话。)

**atom** *n.* 原子; 原子能; 微粒, 微量 (the splitting of the atom “原子的分裂”。形容词为 atomic “原子的, 微粒的”; atomic reactor “原子反应炉”; atomic energy “原子能”。)

**polyvinyl chloride** *n.* 聚氯乙烯 (俗称 PVC 塑料。)

**fireproof** *adj.* 防火的; 耐火的 (fireproof suits “防火服”; fire fighter “消防员”。proof 作形容词时, 意为“防……的”; 作名词时, 意为“证明”。动词 prove 表示“证明, 验证”。)

**drain** *n.* 下水道; 下水管 (作动词时意为“排水; 流干; 耗尽”。drain system 指“排水系统”。)

**gutter** *n.* (人行道旁的) 排水沟, 阴沟 (作动词时表示“忽明忽暗; 摇曳不定”。例如: It is supposed to be washed down the gutter and into the city's vast sewerage system. 它应该沿着排水沟被冲入城市庞大的排污系统。)

**suitable** *adj.* 合适的; 适宜的 (拆分记忆: 表示“合适”的动词 suit 加表示“能够……的”的形容词后缀 -able。)

**substitute** *n.* 代用品; 代替物 (可同义替换为 replacement。作动词时意为“取代, 代替”。)

**waterproof** *adj.* 防水的, 不透水的 (可同义替换为 watertight。作名词时意为“雨衣, 防水衣物”。)

**friction** *n.* 摩擦; 冲突, 争执 (形近词 fraction 意为“分数; 一小部分”。)

**polystyrene** *n.* 聚苯乙烯 (是应用最广的热塑性塑料之一。)

**food container** 食品容器 (container 表示“容器, 箱, 集装箱, 货柜”, 其动词形式是 contain, 意为“包含, 容纳”。)

**domestic appliance** 家用电器 (形容词 domestic 意为“家庭的, 国内的”; appliance 表示“器具, 器械, 装置”。)

**packaging** *n.* 包装; 包装材料; 外包装 (例如: Manufacturing and packaging may be separate. 制造和包装可以分开进行。package 作动词时意为“包装; 把……装箱”; 作名词时表示“包裹; 包装袋; 包装盒; 一组建议”。package holidays 表示“全包旅游”。)

**adhesive** *n.* 黏合剂, 黏着剂 (作形容词时意为“黏着的, 黏附的”, 可以和 sticky 同义替换。动词形式为 adhere “黏附; 附着”。adhere strictly to a plan 表示“严格遵循计划”。)

**man-made** *adj.* 人造的 (其实就是 artificial 的意思。)

**glossy** *adj.* 光滑的; 有光泽的 (可同义替换为 sleek。glossy 还能作名词, 指用亮光纸印刷的“杂志”。)

**subsequently** *adv.* 后来, 随后 (而 consequently 表示“因此, 所以”, 要注意辨析。)

**garment** *n.* 衣服, 服装 (作动词指“给……穿衣服”。)

**blend** *n.* 混合物 (例如: These cigarettes are a blend of the best tobaccos. 这些香烟是用最好的烟草混合制成的。作动词时, 表示“混合, 掺杂, 融合”。)

**strength** *n.* 优势, 优点; 力量, 力度 (这里指塑料的优点, 也就是 advantage 和 merit。)

反义词“缺点”可用 *weakness*, *drawback* 或 *disadvantage* 等表示。)

**indestructibility** *n.* 不能破坏, 不灭(形容词形式为 *indestructible* “不能破坏的, 不可毁灭的, 坚不可摧的”。可通过我们熟知的单词 *destruct* “破坏”来记忆。)

**quality** *n.* 优点; 才能, 能力; 质量, 品质(*quality product* 作为复合名词, 意为“优质产品”。)

**be littered with** 放满, 布满, 到处都是(动词词组。*litter* 既可作动词也可作名词, 作名词时表示“垃圾; 杂乱”; 作动词时表示“乱扔垃圾”或“弄乱”。所以 *be littered with* 表示“一个比较杂乱的状态”。)

**biodegradable** *adj.* 能进行生物降解的(大家都知道 *biology* 是“生物”的意思, *degrade* 表示“降级”, 建议拆分记忆。生物降解就是通过细菌或其他微生物的酶系活动分解有机物质的过程。)

**incorporate...into...** 使……成为……的一部分(动词词组。可同义替换为 *make...a part of...* “把……并入……”。*incorporate* 作为动词单独出现时, 意为“组成公司; 包含”。例如: *I will incorporate the new findings in my report.* 我要把新发现写入我的报告。)

**starch** *n.* 淀粉(均衡的饮食“*balanced diet*”要求碳水化合物“*carbohydrate*”, 如淀粉、纤维“*fiber*”和蛋白质“*protein*”均有摄入。)

**bacteria** *n.* 细菌(*bacterium* 的复数形式。“抵抗细菌”用的动词是“*resist*”, 而“被细菌感染”则应该是“*be contaminated with bacteria*”。)

**fall apart** 崩溃, 瓦解, 破裂, 破碎(动词词组。在文中其实就是“分解”的意思, 指塑料能被慢慢降解。)

**decay** *v.* 腐烂, 腐朽; 衰败(*tooth decay* “蛀牙”。在文中可同义替换为 *decompose*。)

**ensure** *v.* 确保; 保证; 担保(英文释义为 *to make sure that something happens or is definite*, 可同义替换为 *guarantee*, *insure*。)

**disintegrate** *v.* 瓦解, 解体(拆分记忆: *dis-* 是常见的否定前缀, 而 *integrate* 意为“使一体化; 使整合; 使完整; 使结合成为整体”。)

## 题目详解

### Questions 14-20

#### 思路

此类为典型的表格题。作为按行文顺序出题的题型, 重点是看清楚横纵坐标的概念, 并在相邻格子中找到易于定位的线索以进行宏观定位, 之后再以空格信息类型、词性、前后搭配进行微观定位, 找到要填的词汇。

本题中, 横坐标从左到右依次为“塑料名称”、“发明年代”、“发源地”、“特性”、“常见/普遍用途”。

### 解 答

14. 题目线索为年代“1860s”，定位于原文第3段倒数第2句中提到的“这一新的材料迅速在一系列产品中得到应用”。考生的疑问一般是“多个并列的应用中，我应该选哪一个填上去？”。这就需要考生注意看后一句话：“如果没有 Celluloid，电影行业就不可能在19世纪末顺利兴起。”可以看出，该句着重强调了 Celluloid 在电影方面的 common use “常见应用”，因此答案应该填 photographic film，考生按原文照抄即可。
15. 题目线索为年代“1907”，定位于原文第4段第2、3句“In 1907 Leo Baekeland... invented a different kind of plastic...Baekeland called the material Bakelite”。虽然前一句中有 Celluloid 一词，但它明显是上一段的主题，而本段里提到的新发明的塑料在第3句中“Baekeland called the material Bakelite”，故而填 Bakelite。
16. 题目线索同上一题，故在同一段，考生主要寻找有关 Bakelite 的普遍用途的信息。因此，定位在第4段的末句“...it was soon being used in the manufacture of switches, household items...and electrical components for cars”。本段没有特殊强调的用途，实际为三种用途并列：switches, household items, electrical components for cars。另外，考生要注意排除干扰项“knife handles”，因为刀柄是属于 household items 这一类的。看完题目后，可以发现 household items 和 electrical components for cars 已有对应，缺少的内容就是 switches，故填入 switches。
17. 题目线索为年代“1930s”，定位在第5段第2句“In the 1930s, British chemists discovered...to form a thermoplastic they called *polythene*。”。提问对象为原产地，所以考生需要在附近找国家或地区名称，如此很容易就能发现1930s后面的 British 一词，但根据表格上下 US, Germany 的名词格式，答案应改写为 Britain 或 UK。
18. 题目线索为塑料名称“Rigid PVC”，定位到第5段第5句“...produced PVC (polyvinyl chloride), a hard, fireproof plastic suitable for drains and gutters.”，其中题目的 Rigid 对应原文的 hard，表示“硬的，坚固的”。本题提问对象为其特性，考生可在第5句找到 hard 和 fireproof 两个特性。但因 hard 已经被题目中的 Rigid 替换，故没有必要再次提及，因此答案为 fireproof。
19. 题目线索为年代“1930s”、地点“Germany”以及塑料名称“Polystyrene”，定位于第5段第9句“Polystyrene, developed during the 1930s in Germany, was a clear, glass-like material, used in food containers, domestic appliances and toys。”。提问对象为其特性，因此考生需要寻找相应的形容词。在本句中，考生可以发现 clear 和 glass-like 两个特性，而根据题目“字数三词以内”的要求，可以填入 clear and glass-like。
20. 题目线索为塑料名称“Polyurethanes”，定位于第5段第11句，题目问的是其特性，原文用特殊形式进行说明，在双破折号之间以插入语的形式提到“in the form of rigid foams（以硬化泡沫的形式）”，因此答案为 rigid，填入即可。

## Questions 21-26

## 思路

该题型为是非无题。要注意先细看题目,再看原文。从原文中找到题目里的关键概念,以此作为选择的依据。若所有关键概念都存在于原文,且都成立,则选 TRUE / YES;若有一个关键概念存在于原文,但被推翻,则选 FALSE / NO;若有一个关键概念不存在于原文,则选 NOT GIVEN。

## 解答

21. 题目关键概念包括“chemical structure, plastic, different from, rubber”。定位到第2段首句,这里谈到 rubber 是一种聚合物,之后又谈到其化学合成的方式为“聚合 (polymerisation)”,之后还谈到“The same bonding principle (of rubber) underlies the creation of...Plastics...”(同样的合成方式构成了塑料制造的基础),从原文可以得出二者为相同的化学组成方式,然而题目却为“different (不同的)”,题目中的“different”的概念被原文中的“same”推翻,故选 FALSE。
22. 题目关键概念包括“John Wesley, famous, chemist”。先通过人名定位在第3段第3句,结果发现本句话既未谈到此人是“化学家”(虽然通过前文语境我们可以推断出他极有可能是搞化学的,但这并不能掩盖文中没有提及这一信息的事实),也未谈到他“有名”,题目在原文的基础上无法判断,所以选 NOT GIVEN。
23. 题目关键概念包括“Celluloid, Bakelite, react to heat, the same way”。根据两个专有名词定位在第4段的第1、3句,通过比较两句中的信息,可以看出其中 Celluloid 加热后的反应是“can be repeatedly softened and reshaped”,而 Bakelite (尤其要注意第三句 but 后的强调)则是“cannot be softened by heat and reshaped once they have set”。即前者可反复加热软化并变换造型,后者只能在第一次加热时变换造型,后面再加热就没用了。所以两者的“react to heat”是不同的,与题目关键概念“the same way”相反,故选 FALSE。
24. 题目关键概念包括“mix of different varieties, make recycling more difficult”,由此定位到末段(考生要注意这个跳跃的区间很大)第3句“Nor is it very easy to recycle plastics, as different types of plastic are often used in the same items and call for different treatments”。其中题目的“mix of different varieties”对应原文中的“different types”,题目的“make recycling more difficult”对应原文中的“Nor is it very easy to recycle plastics...call for different treatments”。从前文中,我们可以看出塑料有一个特性,那就是不易摧毁、不易降解,这既是它的优点也是它的劣势。由于塑料的“坚不可摧”的特点,那么在回收时,由各种不同的塑料材质(different types of plastic)制成的同一个物品就需要更繁琐的处理(call for different treatments)。题目是原文信息的简单

概括, 因此答案选 TRUE。

25. 题目关键概念包括 “Adding starch, make...more durable”, 由此定位到末段第 4 句 “... by incorporating into their structure a material such as starch, which is attacked by bacteria and causes the plastic to fall apart”。其中题目的 “Adding” 对应原文中的 “incorporating”, “starch” 是原词重现, 而原文中的 “causes the plastic to fall apart (促使塑料分解)” 与题目的 “more durable (让塑料更耐用)” 的意思相反, 故选 FALSE。
26. 题目关键概念包括 “Some plastic containers, preserved, in special conditions”, 由此定位到末段末句 “...bottles made of such materials have to be stored in the dark”。其中题目的 “containers” 对应原文的 “bottles”, 题目的 “preserved” 对应原文的 “stored”, 题目的 “in special conditions” 对应原文的 “in the dark”, 关键概念全部对应, 故答案为 TRUE。

## 参考译文

### The Development of Plastics

#### 塑料的发展

When **rubber** was first **commercially** produced in Europe during the nineteenth century, it rapidly became a very important **commodity**, particularly in the fields of transportation and electricity. However, during the twentieth century a number of new **synthetic** materials, called plastics, **superseded** natural rubber in all but a few **applications**.

在 19 世纪的欧洲, 当橡胶第一次被用于商业生产时, 便迅速成为重要商品, 尤其是在运输和电力领域。然而, 到了 20 世纪, 除了个别情况, 大多数天然橡胶的应用被一些叫作塑料的新型合成材料所取代。

Rubber is a **polymer** — a **compound** containing large **molecules** that are formed by the **bonding** of many smaller, simpler units, repeated over and over again. The same bonding **principle** — **polymerisation** — **underlies** the creation of a huge range of plastics by the chemical industry.

橡胶是一种聚合物——一种由许多小的、简单的单体重复连接而成的高分子化合物。相同的连接原理——聚合——为化工业多种塑料的创造奠定了基础。

The first plastic was developed as a result of a competition in the USA. In the 1860s, \$10,000 was offered to anybody who could **replace ivory** — supplies of which were declining — with something equally good as a material for making **billiard balls**. The prize was won by John Wesley Hyatt with a material called **celluloid**. *Celluloid* was made by **dissolving** cellulose, a

carbohydrate derived from plants, in a solution of camphor dissolved in ethanol. This new material rapidly found uses in the manufacture of products such as knife handles, detachable collars and cuffs, spectacle frames and photographic film. Without celluloid, the film industry could never have got off the ground at the end of the 19th century.

第一种塑料的诞生源于一场比赛，该比赛发生在 19 世纪 60 年代的美国。能发明出同样出色的用于制作台球的材料来替代供应量不断下滑的象牙的人，将得到 1 万美金的奖赏。结果约翰·卫斯理·海厄特（John Wesley Hyatt）凭借一种叫赛璐珞的材质赢得了奖励。赛璐珞是通过把从植物中提取的碳水化合物——纤维素溶解于樟脑的酒精溶液中制成的。这种新材料被迅速应用于诸如刀柄、可拆卸的衣领和袖口、眼镜框以及摄影胶片等产品的制作。没有赛璐珞，电影业绝不可能在 19 世纪末起步。

Celluloid can be repeatedly softened and reshaped by heat, and is known as a thermoplastic. In 1907 Leo Baekeland, a Belgian chemist working in the USA, invented a different kind of plastic by causing phenol and formaldehyde to react together. Baekeland called the material Bakelite, and it was the first of the thermosets — plastics that can be cast and moulded while hot, but cannot be softened by heat and reshaped once they have set. Bakelite was a good insulator, and was resistant to water, acids and moderate heat. With these properties it was soon being used in the manufacture of switches, household items, such as knife handles, and electrical components for cars.

赛璐珞可反复加热软化和再塑形，所以被称为热塑性塑料。1907 年，在美国工作的比利时化学家利奥·贝克兰德（Leo Baekeland）通过使苯酚和甲醛一起反应发明了一种不同的塑料。贝克兰德将其命名为酚醛塑料，它是第一种热固性塑料——即在受热条件下可以浇铸成形，但一旦定形就无法再次受热软化，因而也不再具有可塑性。酚醛塑料不仅是一种良好的绝缘材质，同时还有防水、抗酸和耐热的特性。因此它很快就被用于制造开关、家居用品（如刀柄）和汽车的电子部件。

Soon chemists began looking for other small molecules that could be strung together to make polymers. In the 1930s, British chemists discovered that the gas ethylene would polymerise under heat and pressure to form a thermoplastic they called polythene. Polypropylene followed in the 1950s. Both were used to make bottles, pipes and plastic bags. A small change in the starting material — replacing a hydrogen atom in ethylene with a chlorine atom — produced PVC (polyvinyl chloride), a hard, fireproof plastic suitable for drains and gutters. And by adding certain chemicals, a soft form of PVC could be produced, suitable as a substitute for rubber in items such as waterproof clothing. A closely related plastic was Teflon, or PTFE (polytetrafluoroethylene). This had a very low coefficient of friction, making it ideal for bearings, rollers, and



non-stick frying pans. **Polystyrene**, developed during the 1930s in Germany, was a clear, glass-like material, used in **food containers**, **domestic appliances** and toys. Expanded polystyrene — a white, rigid foam — was widely used in **packaging** and insulation. **Polyurethanes**, also developed in Germany, found uses as **adhesives**, coatings, and — in the form of rigid foams — as insulation materials. They are all produced from chemicals derived from crude oil, which contains exactly the same elements — carbon and hydrogen — as many plastics.

很快, 化学家们开始寻找其他可以串在一起形成聚合物的小分子。20 世纪 30 年代, 英国化学家发现在加热和高压下, 乙烯气体可聚合, 生成一种叫作聚乙烯的热塑性塑料。接着是 20 世纪 50 年代发明的聚丙烯, 两者均被用于制造瓶子、管子和塑料袋。只要将起始原料进行微调——将乙烯中的一个氢原子替换成一个氯原子——便可制成 PVC (聚氯乙烯), 一种适用于下水道和排水沟的硬质防火塑料。此外, 通过添加某些化学物质, 还可以生成一种软 PVC, 它能替代诸如防水服等制品中的橡胶。特氟龙或 **PTFE** (聚四氟乙烯) 是一种非常近似的塑料。它的摩擦系数非常低, 这使它成为轴承、滚轴和不粘锅的理想材质。20 世纪 30 年代德国又研发出了聚苯乙烯, 一种用于制造食品容器、家用电器和玩具的透明玻璃状物质。而发泡型聚苯乙烯, 作为一种白色硬质泡沫塑料, 被广泛用于包装和绝缘。同样在德国研发的聚氨酯适用于黏合剂和涂料, 而聚氨酯硬质泡沫则是很好的保温隔热材料。所有这些塑料都是由原油所炼制的化学物质制成, 它们所含的化学成分完全相同, 即碳和氢。

The first of the **man-made** fibres, nylon, was also created in the 1930s. Its inventor was a chemist called Wallace Carothers, who worked for the Du Pont Company in the USA. He found that under the right conditions, two chemicals — hexamethylenediamine and adipic acid — would form a polymer that could be pumped out through holes and then stretched to form long **glossy** threads that could be woven like silk. Its first use was to make parachutes for the US armed forces in World War II. In the post-war years nylon completely replaced silk in the manufacture of stockings. **Subsequently** many other synthetic fibres joined nylon, including Orlon, Acrilan and Terylene. Today most **garments** are made of a **blend** of natural fibres, such as cotton and wool, and man-made fibres that make fabrics easier to look after.

尼龙作为世界上第一种人造纤维, 也诞生在上世纪 30 年代。它的发明者是曾经任职于美国杜邦公司的化学家华莱士·卡罗瑟斯 (Wallace Carothers)。他发现在合适的条件下, 两种化学物质——己二胺和己二酸——会形成一种聚合物, 该聚合物可以从孔状截面中抽出, 继而拉伸成长条的、光滑的线状纤维, 这种纤维能像丝一样进行编织。起初, 它被用来为二战中的美国武装力量制作降落伞。战后, 尼龙长筒袜更是完全取代了丝质长筒袜。随后许多其他合成纤维, 包括晴纶、腈纶和涤纶都加入了尼龙的行列。现今大多数服装都是由棉、羊毛等天然纤维和人造纤维混纺制成, 这种纺织品更易打理。



The great **strength** of plastic is its **indestructibility**. However, this **quality** is also something of a drawback: beaches all over the world, even on the remotest islands, **are littered with** plastic bottles that nothing can destroy. Nor is it very easy to recycle plastics, as different types of plastic are often used in the same items and call for different treatments. Plastics can be made **biodegradable** by **incorporating into** their structure a material such as **starch**, which is attacked by **bacteria** and causes the plastic to **fall apart**. Other materials can be incorporated that gradually **decay** in sunlight — although bottles made of such materials have to be stored in the dark, to **ensure** that they do not **disintegrate** before they have been used.

塑料最大的优点是它不易破坏。然而这是一把双刃剑，它的这一特性造成世界各地的海滩，甚至是那些最偏远的岛屿上，也随处可见无法被消灭的塑料瓶。塑料回收也绝非易事，因为同一个物品常包含不同的塑料，所以处理时需要区别对待。生物降解塑料的制成需要在其生产过程中加入一定量的添加剂，如淀粉。它会被细菌攻击，从而促使塑料分解。当然还可以添加其他物质，让塑料在光照后逐渐腐烂降解——但是，这类由光降解塑料制成的瓶子需要避光储存，以确保它们不会在未使用前就分解。

### Reading Passage 3. Global Warming in New Zealand

#### 词汇详解

**stem** *v.* 起源于；阻止（文中“stem from”等同于“arise from”，表示“来自或起源于，由……造成”。例如：...discontent stemming from low pay and poor working conditions... 因工资低、工作条件差而产生的不满情绪。stem 本身还可以作名词，表示植物的“茎，干”，可能会在植物类话题里出现。）

**comparatively** *adv.* 比较地（文中“comparatively fortunate”意为“比较幸运的”。例如：“comparatively wealthy/small/old”表示“比较富裕的/小的/老的”。形容词为 comparative，意为“相对的，比较而言的”，例句：In a poor country, owning a bicycle is a sign of comparative wealth. 在贫穷的国家里，有辆自行车就是比较富裕的象征。）

**moisture** *n.* 潮湿，湿气，水气（经常和 humidity “湿度”同义替换。形容词为 moist，例句：Water the plant regularly to keep the soil moist. 按时给植物浇水以保持土壤湿润。）

**turn out to be** 结果是，原来是（动词词组，例句：The job turned out to be harder than we thought. 结果这项工作比我们想的要难。）

**calamity** *n.* 灾祸，灾难（同义词有 misfortune 和 disaster 等，例句：The earthquake was the worst calamity in the country's history. 那次地震是全国有史以来最严重的灾难。）

**deficit** *n.* 不足；亏空额，赤字（文中意为“不足”。其形容词为 deficient，通常作表语，有“be

deficient in something” 的用法, 例如 “be deficient in experience” 意为 “缺乏经验”, 等同于 lack in something, 反义词为 sufficient “充足的”。)

**rank** *v.* 位列, 将……置于行列中, 分等级 (常和序数词搭配, 表示排第几。它还能作名词, 意为 “等级”, 例如: “people of high rank” 的意思是 “地位高的人”。)

**impose** *v.* 强加 (作动词时, 用法有: impose something on somebody/something “将……强加于某人/某事物”, 可以和 place something on somebody/something 替换。例如: impose limitations/a fine/sentence/term of imprisonment etc.)

**cumulative** *adj.* (数量、力量等) 渐增的, 累积的 (“the cumulative effect of several illness” 意为 “几种疾病日积月累造成的影响”。)

**volume** *n.* 体积; 大量, 许多 (文中指 “体积”。作 “大量, 许多” 讲时, 多指不可数的事情, 例如: the sheer volume of business/work/research etc. 大量业务/工作/研究等。volume 还有 “册, 本, 卷, 集” 的意思。)

**via** *prep.* 经由, 通过 (同义表达还有: by way of something 或 through。例句: I can send him a note via internal mail system. 我可以通过内部通信系统给他发通知。)

**deformation** *n.* 变形, 畸形 (动词形式为: deform, 意为 “to spoil the shape or appearance of something”, 即 “毁坏形状或外观, 使某物变形或成畸形”。)

**basal** *adj.* 基底的, 在底部的, 基础的 (文中意为 “基底的”。“basal metabolic rate” 意为 “基础代谢率”, 也就是我们俗称的 BMR。)

**sliding** *n.* 滑动 (文中的 basal sliding 意为 “基底滑动”, 是专业术语。它是指冰川底部冰雪融水起到润滑剂的作用, 从而使冰川发生了滑动。)

**dynamic** *adj.* 动力的, 动态的, 不断变化的; 充满活力的 (其同义替换词为 energetic, 反义词为 static, 意为 “静止的, 静态的”。)

**uniform** *adj.* (形状, 性质等) 一样的; 规格一致的; 始终如一的 (其同义替换词为 unvarying。例句: The rows of houses were uniform in appearance. 这一排排的房子外观相同。作名词时, 意为 “制服”, 例如: children wearing school uniforms 穿校服的儿童。)

**joint** *adj.* 共有的, 共同的 (其同义替换词为 shared。常见搭配: joint account 联名帐户。作名词意为 “踝、膝、肘等关节”。)

**effort** *n.* 努力, 奋斗 (其同义替换词有: struggle, attempt 等。文中的 joint efforts 意为 “共同努力”。)

**conquer** *v.* 克服 (可与 overcome 同义替换, 常和 obstacle, emotion 等搭配; 它还有 “以武力占领、征服和击败” 的意思。)

**breed** *n.* 品种 (通常为特意繁殖的) (它还能作动词, 意为 “bring up, train, and educate”, 即 “养育; 训练; 教育”。)

**tackle** *v.* 解决 (同义词有: solve, address, deal with 等。)

**resilience** *n.* 迅速恢复的能力, 适应性; 弹性, 弹力 (形容人的时候, 意为 “乐观的性情”。

例句: Her natural resilience helped her overcome the crisis. 她乐观的天性有助于她渡过难关。) reversal *n.* 反转, 倒向, 颠倒 (“a dramatic reversal of her earlier decision” 意为 “她突然改变了决定”。)

a tip of the iceberg 冰山一角 (习语。常指 “重要情况、重大问题等显露出的一小部分”。)

ambiguous *adj.* 不明确的, 含糊的 (可与 uncertain 同义替换; 还可以解释为 “有歧义的”。)

## 题目详解

### Questions 27-32

#### 解答

27. 根据题目中的 “the first paragraph” 和选项 A 中的 “temperature”、“less than” 和 “next century” 定位至第 1 段第 3 句。选项 A 的意思是 “极地地区温度上升的比新西兰少”, 这和原文意思相反, 所以选项 A 不正确。选项 B 的意思是 “新西兰的天气与气候对新西兰人很重要是因为它的位置离极地很近”, 此选项的原因部分属于无中生有, 所以选项 B 不正确。根据选项 C 的 “air condition” 定位至第 1 段第 4 句, 该句说 “海洋像空调一样可以调节新西兰的温度”, 但没说新西兰的空气质量, 因此选项 C 不正确。结合原文第 1 段第 3、4 句, 可知 “在下一个世纪中, 新西兰的气温上升相对极地要少, 因为海洋可以帮助调节温度”, 这与选项 D 的意思一致, 因此本题选 D。
28. 根据题目中的 “wind belt” 和选项 A 中的 “moisture” 定位至第 2 段第 2 句。选项 A 说的是 “夏天的风里有更多湿气”, 这和文章中 “weakening of moisture” 正好相反, 此项不正确。选项 C 中 “Soil water” 对应第 2 段末句, 文中说 “土壤水分会下降”, 而不是上升, 原因也不是因为风中的湿气下降, 此项不正确。选项 D 说 “由于其他季节雨水增加, 农业产量会减少”, 而文中说的是 “农业活动受夏季干旱的影响, 即便其他季节降雨量增加也无济于事”, 选项 D 与原文信息不符, 故此选项不正确。选项 B 说 “新西兰在一年较热的季节里会面临干旱问题”, 原文第 2 段最后两句也说 “夏季降雨量减少, 土壤中水分进一步减少, 干旱加剧”, 选项 B 与原文信息一致。本题答案为 B。
29. 根据顺序原则和 “moisture deficit” 定位至第 3 段, 本段最后部分说到 “土壤水分缺失会导致大约 22% 的产量减少”, 侧面反映出水分缺失会使农作物的生长条件变艰苦。选项 A 为正确答案。选项 B 错误, 因为文章中并没有说植物的生长季节会因为 “moisture deficit” 而变得 “hardly be determined”。选项 C 错误, 虽然文中有提到此内容, 但是和 grain 以及 crops 没直接因果关系, 且缺少 “a huge gap” 这个信息点。选项 D 和题目没有逻辑关系, 尽管此段中第 3 句话说到 “自 1970 年后, 新西兰土壤水分缺失达到最高”, 但是这并不意味着 grain 和 crops 的产量在 1970 年之后达到最低, 所以 D 选项错误。本题选 A。

30. 根据题目中的“skiing industry”和选项 A 中的“altitude”定位至第 4 段, 选项 A 说的是“滑雪站可能会降低滑雪的海拔高度”, 这与文章内容相反, 文章说因为随着新西兰目前的温度不断上升, “the snow line may move up”雪线可能会上升, 正常情况下“skiing station”应该提高“altitude”, 所以 A 选项错误。选项 B “部分滑雪站需要向北面移动”, 文章中根本没有提到, 属于无中生有的信息。选项 C 与文中“the quantities of snowfall in some areas are more likely to increase”的意思一致, 为正确答案。选项 D 错误, 文中虽然有提到积雪量在某些 station 上升, 但是没有说上升就会有盈利, 这是过度推断的选项。本题选 C。
31. 根据顺序原则和“Cumulative changes”定位到第 5 段第 4 句, 其中题目中的“Alterations”与原文中的“changes”为同义替换, 改变的内容在文章中为原词出现, 即: thickness 和 volume。因此, 选项 A 正确。选项 B 说“internal deformation and basal sliding”这个改变会很迅速, 但文章并未提到“faster changes”, 该选项错误。选项 C 指 glaciers 的 length 变长, 原文中只提到会改变长度, 但没有提是变长还是变短, 该选项错误。选项 D 中“retreat of glacier tongues”和后面的“annual atmospheric conditions”没有对应的因果关系, 该选项多出了这个无中生有的因果关系, 选项 D 错误。本题选 A。
32. 本题答案的得出需要依靠对整段的理解, 文中举 NIWA 的例子就是为了证明全球变暖后冰川融化带来的影响, 所以选项 A 正确。选项 B 提到的“Mt. Cook 地区消融的雪”在文中有所提及, 但是这个细节不是 NIWA 所直接指代的内容。而选项 C 中所说的“alarm the reader”在文中没有提及, 与 NIWA 所指代的内容并没有直接的逻辑关系, 所以 B 和 C 这两个选项都不正确。选项 D 说“湖泊会消失”, 这与文中“the lake will continue to grow until it reaches the glacier bed”的内容相反, 因此选项 D 错误。所以本题选 A。

### Questions 33-35

#### 解答

33. 根据顺序原则和“sea level”定位至第 7 段。预览题目判断该空填的应该是名词。空格之前的“is connected with”需要注意, 因为它引出了该空格所填词的词性。同时, 文中的“main factor”同义替换了题目中的“major reason”, 因此句子附近的“high tides”就是“sea level”上升的主要原因, 正确答案是 high tides。
34. 根据顺序原则和“water system”定位至第 7 段第 2 句。文中提到“The trend of sea level rise will bring a threat to the groundwater system”, 这对应了题目中的“have a threat to the underground water system”。空格之前的“reduction”与原文中的“decrease”为同义替换, 本题的答案是 agricultural production。

35. 题目末句的开始 “In the long run” 对应文中的 “a longer-term”，文中说海岸线需要被 “upgraded” 和 “redefined”，对应题目中的 “improve”，因此需要被提升的东西就是正确答案，即 coastal boundaries。

### Questions 36-40

#### 解答

36. 根据顺序原则和细节信息 “Farmers” 和 “agriculturists” 定位至第 8 段。该段提到农民和农业专家对气候变化作出及时反应，但是并没有将两者进行比较，所以正确答案为 NOT GIVEN。
37. 第 8 段提到 “Agriculturists also find ways to tackle the problems that may bring to the soil.” 意为 “农学家也在找寻解决土壤可能面临的问题的方法”。但并没有说他们这个领域应对气候变化很保守，所以正确答案为 NOT GIVEN。
38. 根据顺序原则和细节信息 “Turtle” 定位到第 9 段。第 9 段第 2 句就说 “animals have unconventional adaptation to global warming”，后面举的例子就能证明这一点。而且，后面说到海龟的性别会根据温度不同来决定，说明海龟是适应气候环境变化的典型。题目中 “vulnerable to” (易受……伤害的) 和原文意思不符，所以正确答案为 NO。
39. 第 10 段中提到了 “records show the slow process of global warming may have a different impact on various regions”，这与题目意思是完全吻合的，所以正确答案为 YES。
40. 根据细节信息 “carbon dioxide emission” 定位到第 10 段第 2、3 句，可综合理解为：新西兰的二氧化碳排放量只占全世界排放量的很少一部分，即便达到了排放要求，也是杯水车薪，并不会影响全局。这与题目的意思相反，所以正确答案为 NO。

### 参考译文

#### Global Warming in New Zealand

#### 全球变暖对新西兰的影响

For many environmentalists, the world seems to be getting warmer. As the nearest country of South Polar Region, New Zealand has maintained an upward trend in its average temperature in the past few years. However, the temperature in New Zealand will go up by 4°C in the next century while the polar region will go up by more than 6°C. The different pictures of temperature stem from its surrounding ocean which acts like the air conditioner. Thus New Zealand is comparatively fortunate.

对许多环保主义者来说，世界正在越变越暖。作为距离南极地区最近的国家，新西兰的平均温度在过去的几年里一直保持上升的趋势。然而在下个世纪，新西兰的温度将上升

4°C, 而极地地区将上升 6°C 以上。这不同的涨幅可归结为周围海洋这台“大空调”的影响, 从这点来看, 新西兰是较为幸运的。

Scientifically speaking, this temperature phenomenon in New Zealand originated from what researchers call “SAM” (Southern Annular Mode), which refers to the wind belt that circles the Southern Oceans including New Zealand and Antarctica. Yet recent work has revealed that changes in SAM in New Zealand have resulted in a weakening of **moisture** during the summer, and more rainfall in other seasons. A bigger problem may **turn out to be** heavier droughts for agricultural activities because of more water loss from soil, resulting in poorer harvest before winter when the rainfall arrive too late to rescue.

从科学的角度讲, 新西兰的这种升温现象源自于研究人员所称的南半球环状模 (SAM), 即环绕包括新西兰和南极洲在内的南冰洋风带。然而, 最近的研究显示, 新西兰的 SAM 变化导致其夏季降雨量的减少, 以及其他季节降水量的增多。更为严重的是, 随着土壤中水分进一步减少, 干旱加剧, 农业活动受到巨大影响, 导致秋季收成减少, 而秋季降雨为时已晚, 无力挽救。

Among all the **calamities** posed by drought, moisture **deficit ranks** the first. Moisture deficit is the gap between the water plants need during the growing season and the water the earth can offer. Measures of moisture deficit were at their highest since the 1970s in New Zealand. Meanwhile, ecological analyses clearly show moisture deficit is **imposed** at different growth stage of crops. If moisture deficit occurs around a crucial growth stage, it will cause about 22% reduction in grain yield as opposed to moisture deficit at vegetative phase.

一切由干旱引发的灾难中, 水分亏缺排名第一。水分亏缺是指植物在生长季节所需的水分和土壤可提供的水分之间的差距。自 20 世纪 70 年代以来, 新西兰的水分亏缺就一直处在最为严重的阶段。同时, 生态分析清楚地表明水分亏缺在农作物的不同生长阶段都有发生。如果水分亏缺发生在关键的生长期而非营养期, 这将导致粮食产量减少 22%。

Global warming is not only affecting agriculture production. When scientists say the country's snow pack and glaciers are melting at an alarming rate due to global warming, the climate is putting another strain on the local places. For example, when the development of global warming is accompanied by the falling snow line, the local skiing industry comes into a crisis. The snow line may move up as the temperature goes up, and then the snow at the bottom will melt earlier. Fortunately, it is going to be favourable for the local skiing industry to tide over tough periods since the quantities of snowfall in some areas are more likely to increase.

全球变暖不仅对农业生产有影响。当科学家们表示, 由于全球变暖, 国家的积雪和冰川

正以惊人的速度融化时，这意味着气候变化对本土还产生了其他影响。例如，当全球变暖导致雪线消融时，当地滑雪产业也将面临危机。雪线可能会随着温度的上升而上移，而底部的积雪也会较以往更早融化。幸运的是，由于某些地区的降雪量更有可能增加，这将有利于当地滑雪产业度过难关。

What is the reaction of glacier region? The climate change can be reflected in the glacier region in southern New Zealand or land covered by ice and snow. The reaction of a glacier to a climatic change involves a complex chain of processes. Over time periods of years to several decades, **cumulative** changes in mass balance cause **volume** and thickness changes, which will affect the flow of ice **via** altered internal **deformation** and **basal sliding**. This **dynamic** reaction finally leads to glacier length changes, the advance or retreat of glacier tongues. Undoubtedly, glacier mass balance is a more direct signal of annual atmospheric conditions.

那冰川地区有什么样的反应呢？气候变化在新西兰南部或被冰雪覆盖的冰川区域是有所体现的。冰川对气候变化的反应是一个复杂的连锁过程。在几年到几十年的时间里，质量平衡的累积变化造成了体积和厚度的变化，从而通过内部变形和基底滑动影响冰流。这种动态的反应最终导致冰川长度的变化，即冰舌的前移或后退。毫无疑问，冰川质量平衡是反映年度大气状况的一个更为直接的信号。

The latest research result of National Institute of Water and Atmospheric (NIWA) Research shows that glaciers line keeps moving up because of the impacts of global warming. Further losses of ice can be reflected in Mt. Cook Region. By 1996, a 14 km long sector of the glacier had melted down forming a melt lake (Hooker Lake) with a volume. Melting of the glacier front at a rate of 40 m/yr will cause the glacier to retreat at a rather **uniform** rate. Therefore, the lake will continue to grow until it reaches the glacier bed.

国家水与大气研究所（NIWA）的最新研究成果表明，由于全球变暖的影响，冰川线不断上移。库克山区的冰川消融就是一个直观的体现。到1996年，已经有一条14公里长的冰川融化成湖（即霍克湖）。只要冰川锋的融化速度在40米/年，便会导致冰川匀速缩小。因此，这个湖泊将会继续变大，直到抵达冰川床边缘。

A direct result of the melting glaciers is the change of high tides that serves the main factor for sea level rise. The trend of sea level rise will bring a threat to the groundwater system for its hyper-saline groundwater and then pose a possibility to decrease the agricultural production. Many experts believe that the best way to counter this trend is to give a longer-term view of sea level change in New Zealand. Indeed, the coastal boundaries need to be upgraded and redefined. 冰川融化的一个直接结果是涨潮，这是海平面上升的主要因素。海平面的上升趋势将给



地下水系统造成威胁,因为高盐度的地下水可能会降低农业生产。许多专家认为,应对这一趋势的最好方式就是对新西兰的海平面变化进行长期的观测。确实,沿海边界线需要不断改进和重新定义。

There is no doubt that global warming has affected New Zealand in many aspects. The emphasis on the global warming should be based on the **joint efforts** of local people and experts who **conquer** the tough period. For instance, farmers are taking a long term, multi-generational approach to adjust the **breeds** and species according to the temperature. Agriculturists also find ways to **tackle** the problems that may bring to the soil. In broad terms, going forward, the systemic **resilience** that's been going on a long time in the ecosystem will continue.

毫无疑问,全球变暖已经在许多方面影响着新西兰,而克服这一困难的关键在于依靠当地民众和专家的共同努力。例如,农民根据温度采用长期、多代的方法来调整品种结构,而农学家也在寻找解决土壤可能面临的问题的方法。从广义上讲,未来生态系统的自我恢复能力将继续发挥作用。

How about animals' reaction? Experts have surprisingly realised that animals have unconventional adaptation to global warming. A study has looked at sea turtles on a few northern beaches in New Zealand and it is very interesting to find that sea turtles can become male or female in reaction to the temperature. Further researches will try to find out how rising temperatures would affect the ratio of sex **reversal** in their growth. Clearly, the temperature of the nest plays a vital role in the sexes of the baby turtles.

那动物又有什么样的反应呢?专家们惊喜地发现,动物对全球变暖有非同寻常的适应力。一项研究新西兰北部沙滩海龟的调查颇为有趣,其结果显示海龟可以根据发育时周围的温度来决定性别。进一步的研究将试图找出温度的上升会如何影响它们的性别转换率。显然,巢穴的温度对小海龟的性别起着至关重要的作用。

Tackling the problems of global warming is never easy in New Zealand, because records show the slow process of global warming may have a different impact on various regions. For New Zealand, the emission of carbon dioxide only accounts for 0.5% of the world's total, which has met the governmental standard. However, New Zealand's effort counts only **a tip of the iceberg**. So far, global warming has been a world issue that still hangs in an **ambiguous** future. 解决新西兰所面临的全球变暖的问题实属不易,因为记录显示,全球变暖的缓慢过程可能各个地区都有着不同程度的影响。新西兰的二氧化碳排放量只占世界总量的0.5%,这已经达到了政府的标准。然而,新西兰的努力只是冰山一角罢了。到目前为止,全球变暖已成为一个世界性的问题,前路未卜。



# Test 6

## Reading Passage 1. Computer Games for Preschoolers: Nintendo's Research and Design Process

### 词汇详解

**preschooler** *n.* 学前儿童 (pre- 为很常见的前缀, 表示“……前”的意思。)

**daunting** *adj.* 令人畏惧的, 使人气馁的 (常表示某任务过于巨大或困难而使人望而却步。)

**hard core** *n.* 核心份子, 中坚力量 (“hard core fans” 可翻译为“死忠粉”。)

**chronicle** *v.* 记录; 把……载入编年史 (文中用作动词, 意为“记录”。该词作名词时表示“按时间记录下来的数据”。其中前缀 chron- 表示“时间”。)

**keen** *adj.* 热衷的, 着迷的, 强烈的 (文中“keen interest”意为“浓厚的兴趣”。常见用法有“be keen on...”, 表示“对某事物特别热衷/有兴趣”。)

**cognitive** *adj.* 认知的 (该词为心理学常用词。文中“cognitive abilities”意为“认知能力”。)

**mechanics** *n.* 结构; 技术 (文中的“game mechanics”可理解为“游戏机制”。“游戏机制”是一个游戏中构成这个游戏的所有规则, 也就是游戏虚拟世界里的所有规则, 包括物理的和非物理的。)

**concerning** *prep.* 关于; 就……而言 (文中表示“关于”的意思, 相当于“about”。)

**ethnography** *n.* 人种志, 人种学, 民族志 (ethnography 有“人类画像”的内涵, 原指社会人类学者用以参与观察的方法, 对特定文化及社会搜集制作资料、纪录、评价, 并以社会或人类学的理论来解释此类观察结果的一种研究方法。文中表示“通过浸入式的方法对某特定社会群体进行社会学观察及研究”。)

**yield** *v.* 产出; 屈服 (文中应翻译为“产出”。)

**insight** *n.* 洞察, 深入的看法

**conduct** *v.* 操作, 进行 (常与 research, study, experiment 一类词汇搭配, 表示“进行”。)

**subject** *n.* 研究对象 (该词为心理学和社会学常见术语, 意为“批评、研究或调查的对象”。)

**sibling** *n.* 亲兄弟姐妹

**coordination** *n.* 协调 (其中 co- 为前缀, 意为“一起, 共同”。)

**instinctive** *adj.* 本能的

**intuitive** *adj.* 直觉的

**learned** *adj.* 后天习得的

**pattern** *n.* 模式; 款式; 规律 (文中可理解为“模式”, 在学术文章中多为“规律”的意思。)

**moderation** *n.* 适度; 节制; 缓冲 (来自形容词 moderate, 意为“适度的; 有节制的; 温和的”。)

**ideology** *n.* 意识形态, 思想体系

**install** *v.* 安装 (文中指对软件的安装。)

**capability** *n.* 能力 (相较于 ability, capability 更强调一个人的综合能力。)

**prior to** *prep.* 在……之前; 居先 (介词词组, 文中意为“在……之前”, 相当于 before。)

**dexterity** *n.* 灵巧, 熟练 (常指与身体技能有关的灵巧与熟练, 如剑术、体育活动等。)

**implement** *v.* 执行 (虽然以 ment 结尾, 但作“执行”讲时, 实为动词。其名词形式为 implementation。)

**frustration** *n.* 沮丧, 挫败 (来自动词 frustrate, 意为“使……感到沮丧/挫败”。)

**exposure** *n.* 接触, 暴露 (来自动词 expose, 意为“暴露”。文中意为“接触”, 如“exposure to English environment”即指“接触英语环境”。)

**complexity** *n.* 复杂性 (来自形容词 complex, 意为“复杂的”。该词为中性词。)

**consultation** *n.* 咨询

**mermaid** *n.* 美人鱼

**character** *n.* 角色, 性格 (文中应翻译为“角色”。)

**appeal to** 对……产生吸引力 (appeal 也可作名词, 表示“吸引力”, 类似于 attractiveness。)

**incorporate** *v.* 包含

**highlight** *v.* 强调 (原义为美术中的“高光”、“亮点”, 引申义为“强调”。)

**implication** *n.* 影响, 意义 (常用于表示某事物的长远影响。)

**engaging** *adj.* 吸引人的, 引人参与的 (例如, 课堂活动的设计应尽量做到 engaging, 让学生忍不住想要参与进来。)

## 题目详解

### Questions 1-5

#### 解答

1. 利用细节信息“Main Objectives”定位到文中第2段, 文中明确提到“we finally agreed on three key goals for our project”, 其中“goals”和“objectives”为同义替换词。

本题考查的就是之后所提到的三个目标之一。根据“in the context”可知本题对应第一个目标，即“understand the range of physical and cognitive abilities of preschoolers”，其中题前的定语“relevant”是对文中“physical and cognitive”的概括，所以答案就是 abilities。

2. 本题定位方法与上题相同，属于三个目标中的第三个目标。即“understand the expectations of preschoolers’ parents concerning the handheld systems as well as...”，根据题中关键词“attitudes”和“towards games”寻找“态度”的发出者即可。不难得到第 2 题的答案为 parents。
3. 此题题干中的“26”是个极好的定位词，在第 2 段中，我们找到“so we start by conducting 26 in-home ethnographies in three markets across the United States: an East coast urban/suburban area,...”。题干中的 US 和文章中“the United States”也非常容易对应上，那么 markets 即为此题答案。
4. 此题相对较难定位，但是根据“顺序原则”，我们比较容易发现，在上一题的后面，即第 3 段中谈论到了实验对象的年龄问题。并且，第 4 题空格之前的 older 是很好的判断依据，在这段中“Also, because previous research had shown the effects of older siblings on game play...”我们可以发现，siblings 是此题的答案。
5. 读题可预先判断出空格中应该填一个描述 players 的形容词，根据顺序原则继续看后面的文字。“new”也可以帮助我们定位，文章第 3 段提到“In order to understand both ‘experienced’ and ‘new’ preschool users of the platform, we divided the sample so that 13 families owned at least one...”，可以看见与“new”并列的相同词性的“experienced”，它的确是描述 players 的形容词，所以正确答案为 experienced。

### Questions 6-9

#### 解答

6. 第四段中虽然提到“levels of parental moderation with regard to computer gaming”，但并没有给出明确的时间范围，题目中“after school”在原文的基础上无法判断，所以此题答案为 NOT GIVEN。
7. 此题为第 2 到第 6 段的推论。虽没有明确对应原句，但是第 2 到 6 段的整个实验都是在实验对象家里进行，如果无法进入，则不可能很好地展开后续实验内容。此外，in-home interviews 一词也说明是家访。所以，“free access to the subjects’ houses”是可以推得的，所以此题答案为 TRUE。
8. 根据题目信息中的游戏名称可以定位到原文第 6 段，对应原句为“The Little Mermaid: Ariel’s Undersea Adventure....First, it was one of the few games on the market with characters that appeal to this young age group”。文中的“this young age group”指

代的即是题中的“preschoolers”，所以此题答案是 TRUE。

9. 根据顺序原则和细节信息“operated”在第6段结尾找到与该游戏操作相对应的内容。文章提到“Second, it incorporated a large variety of mechanics that highlighted the uniqueness of the DS platform, including using the microphone for blowing or singing”，由此可以判断，此游戏除了用手操作外，也需要“sing”（唱）和“blow”（吹）来完成。题干却说完全用手操作，这与原文不符，所以此题答案是 FALSE。

### Questions 10-13

#### 解答

10. 根据顺序原则和细节信息“Using the Results”定位到文章第7段及后面的部分。空格前的“design requirements”和“specialist”可以帮助进一步定位，在原文第7段，发现题目与原文中的“we then outlined the designing needs and presented the findings to a firm specialising in game design”有同义替换。例如：“design requirements”和“designing needs”；“specialist”和“specialising”；“presentation”和“present”，由此可轻松判断此题答案为 firm。
11. 根据顺序原则和细节信息“new games”和“lab”定位到文章第8段。空格前的 assess（评估）和后面的并列词 interest（兴趣，爱好）可帮助判断出该题答案应为名词，而空格前的 mechanics 也给了我们提示。在第8段中，我们找到题目的对应句“we brought preschoolers into our in-house utility lab to test the mechanics and to evaluate both their simplicity, and whether they were engaging”。其中“evaluate”对应空格前的“assess”，而“engaging”对应“interest”，因此本题答案为 simplicity。
12. 根据顺序原则和细节信息“twelve”定位到第8段倒数第2句“Once a full version of the DS game was ready, we went back into the field test with a dozen preschoolers and...”，其中“dozen”对应“twelve”，那么修饰 game 的“full version”就是空格需填写的内容，所以本题答案为 full version。
13. 根据顺序原则和细节信息“Collection”定位到第8段末句。可预先判断此题空格要填的是名词，即“来自父母的……”。从原文“We also collected parents’ feedback on whether they thought the game is appropriate, engaging, and worth the purchase”可以发现，题干把文中的 collected 变成了 collection，需要收集的东西就是“feedback”，所以本题答案为 feedback。

## 参考译文

## Computer Games for Preschoolers:

## Nintendo's Research and Design Process

## 学前儿童电脑游戏：任天堂的研究和设计过程

Designing computer games for young children is a **daunting** task for game producers, who, for a long time, have concentrated on more “**hard core**” game fans. This article **chronicles** the design process and research involved in creating *Nintendo DS* for preschool gamers.

对游戏制作人而言,为儿童开发游戏是一项艰巨的任务,他们长期以来更关注那些“铁杆”游戏迷。本文记录了任天堂 DS 的设计过程和创造这款学龄前玩家机型时所做的研究。

After speaking with our producers who have a **keen** interest in designing for the DS, we finally agreed on three key goals for our project. First, to understand the range of physical and **cognitive** abilities of preschoolers in the context of handheld system game play; second, to understand how preschool gamers interact with the DS, specifically how they control the different forms of play and game **mechanics** offered by the games presently on the market for this platform; third, to understand the expectations of preschoolers' parents **concerning** the handheld systems as well as the purchase and play contexts within which game play occurs. The team of the research decided that in-home **ethnographies** with preschoolers and their families would **yield** comprehensive database with which to give our producers more information and **insights**, so we start by **conducting** 26 in-home ethnographies in three markets across the United States: an East coast urban/suburban area, a West coast urban/suburban area, and a Midwest suburban/rural area.

我们的生产商对 DS 的设计开发有浓厚兴趣,在接洽后,双方就该项目的三个关键目标达成了共识。第一,要了解学前儿童在操作掌上游戏时的体能和认知能力;第二,要了解幼儿游戏玩家如何与 DS 互动,尤其是他们如何操控目前市面上提供的适合该平台的不同形式的游戏和游戏机制;第三,了解学前儿童的家长对掌上游戏、购买操作和游戏场景的期许。研究小组决定对学龄前儿童和他们的家庭进行家用终端(掌上游戏机)的调研,这样可以得到一个全面的数据库,从而为我们的生产商提供更多的信息和见解。因此,我们对全美三个市场中 26 个对象展开了调研:美国东海岸的一个城市/郊区,西海岸的一个城市/郊区和中西部的一个郊区/农村地区。

The **subjects** in this study included 15 girls and 11 boys ranging from 3 years and 3 months old to 5 years and 11 months old. Also, because previous research had shown the effects of older

**siblings** on game play (demonstrated, for example, by more advanced motor **coordination** when using a computer mouse), households were employed to have a combination of preschoolers with and without elder peers. In order to understand both “experienced” and “new” preschool users of the platform, we divided the sample so that 13 families owned at least one *Nintendo DS* and the others did not. For those households that did not own a DS, one was brought to the interview for the kid to play. This allowed us to see both the **instinctive** and **intuitive** movements of the new players (and of the more experienced players when playing new games), as well as the **learned** movements of the more experienced players. Each of those interviews took about 60 to 120 minutes and included the preschooler, at least one parent, and often siblings and another caregiver.

这项研究的对象包括 15 个女孩和 11 个男孩, 他们的年龄从 3 岁 3 个月到 5 岁 11 个月不等。同时, 由于此前的研究已经显示出哥哥或姐姐对玩游戏的影响 (例如, 现已证实: 有哥哥姐姐的小孩使用鼠标时动作更娴熟), 这次调研要涵盖独生子女和非独生子女家庭。为了了解新老儿童用户对该游戏平台的操作体验, 我们将调研对象分为两组: 一组中 13 个家庭里每家至少拥有一台任天堂 DS, 另一组则没有。对于没有任天堂 DS 的家庭, 在家访时我们会提供一台给孩子玩。这让我们知悉新玩家 (和老玩家对新游戏) 的本能和直觉反应, 以及有经验的玩家对已习得动作的掌握程度。每次家访时长约 60 到 120 分钟, 包括学龄前儿童、至少一位家长, 往往还有兄弟姐妹和另一位监护人。

Three kinds of information were collected after each interview. From any older siblings and the parents that were available, we gathered data about: the buying decisions surrounding game systems in the household, the family's typical game play **patterns**, levels of parental **moderation** with regard to computer gaming, and the most favorite games played by family members. We could also understand the **ideology** of gaming in these homes because of these in-home interviews: what types of spaces were used for game play, how the systems were **installed**, where the handheld play occurred in the house (as well as on-the-go play), and the number and type of games and game systems owned. The most important is, we gathered the game-playing information for every single kid.

每次家访后需要搜集三类信息。对有哥哥姐姐和家长在场的情况, 我们要搜集如下数据: 家用游戏机的购买决定、家庭典型的的游戏模式、父母对电脑游戏的控制程度, 以及家庭成员最喜欢的游戏。基于这些家访, 我们还可以了解这些家庭对游戏的理念: 在什么样的空间进行游戏、如何安装设备、在室内 (及室外) 何处玩手柄游戏, 以及拥有的游戏和游戏设备的数量和种类。最重要的是, 我们收集了每一个孩子玩游戏的信息。

Before carrying out the interviews, the research team had closely discussed with the in-house



game producers to create a list of game mechanics and problems tied to preschoolers' motor and cognitive **capabilities** that were critical for them to understand **prior to** writing the games. These ranged from general **dexterity** issues related to game controllers to the effectiveness of in-game instructions to specific mechanics in current games that the producers were interested in **implementing** for future preschool titles. During the interviews, the moderator gave specific guidance to the preschooler through a series of games, so that he or she could observe the interaction and probe both the preschooler and his or her parents on feelings, attitudes, and **frustrations** that arose in the different circumstances.

在家访前, 研究团队和家庭游戏制作人进行了密切讨论, 并列出了一系列游戏机制以及与幼儿操作、认知能力相关的各种问题, 这些恰恰是他们在编写游戏之前要掌握的关键信息。从游戏手柄的普遍掌控技巧到游戏中某一技术(动作)指令的效力, 清单里都有涵盖, 而这些技巧、指令往往是生产商有意推广到未来幼儿游戏中的部分。家访时, 采访者通过一系列游戏给予学龄前玩家具体指导, 以便观察互动过程, 探查这些小孩和他们的父母在不同的情境里(对游戏机)产生的感受、态度和不满之处。

If the subject in the experiment had previous **exposure** to the DS system, he or she was first asked to play his or her favorite game on that machine. This gave the researchers information about current level of gaming skill related to the **complexity** of the chosen one, allowing them to see the child playing a game with mechanics he or she was already familiar with. Across the 26 preschoolers, the *Nintendo DS* selections scope were very broad, including *New Super Mario Bros*, *Sonic Rush*, *Nintendogs*, and *Tony Hawk's Proving Ground*. The interviewer observed the child play, noting preferences for game mechanics and motor interactions with the device as well as the complexity level each game mechanic was for the tested subject. The researchers asked all of the preschoolers to play with a specific game in **consultation** with our producers, *The Little Mermaid: Ariel's Undersea Adventure*. The game was chosen for two major reasons. First, it was one of the few games on the market with **characters** that **appeal to** this young age group. Second, it **incorporated** a large variety of mechanics that **highlighted** the uniqueness of the DS platform, including using the microphone for blowing or singing.

如果实验对象之前接触过 DS 设备, 他或她会被要求率先玩最喜爱的游戏。这能让研究者根据所选游戏的难易程度了解玩家现有的游戏技巧水平, 同时让他们看到小玩家是如何操作已然熟悉的游戏的。这 26 名学前儿童对任天堂 DS 的喜好选择范围很广, 包括《新超级马里奥兄弟》、《索尼克冲刺》、《任天狗》和《托尼霍克极限滑板练习场》。采访者在孩子玩游戏时进行了观察, 并注意其偏好的游戏机制、肢体运动与设备(即游戏终端)的互动, 以及对测试对象来说不同游戏机制的难易程度。在向生产方咨询后, 研究人员要求所有的学龄前儿童都玩一个特定的游戏——《小美人鱼: 爱丽儿的海底冒险》。选择

这个游戏的原因有两点：首先，它是游戏市场上为数不多的对这个年龄段玩家具有吸引力的游戏之一；其次，它整合了各种突显 DS 平台独特性的玩法机制，包括使用麦克风吹奏或演唱。

The findings from this initial experiment were extensive. After reviewing the outcomes and discussing the **implications** for the game design with our internal game production team, we then outlined the designing needs and presented the findings to a firm specialising in game design. We worked closely with those experts to set the game design for the two preschool-targeted DS games under development on what we had gathered.

这个初始实验的研究结果意义深远。在评估完这些结果并与内部游戏制作团队探讨完其对游戏设计的影响后，我们随即勾画出了设计需求，并向专门从事游戏设计的公司展示了调研结果。我们和这些专家密切合作，根据搜集来的信息开发出两款针对学龄前儿童的任天堂 DS 游戏。

As the two DS games went into the development process, a formative research course of action was set up. Whenever we developed new game mechanics, we brought preschoolers into our in-house utility lab to test the mechanics and to evaluate both their simplicity, and whether they were **engaging**. We tested either alpha or beta versions of different elements of the game, in addition to looking at overarching game structure. Once a full version of the DS game was ready, we went back into the field test with a dozen preschoolers and their parents to make sure that each of the game elements worked for the children, and that the overall objective of the game was understandable and the process was enjoyable for players. We also collected parents' feedback on whether they thought the game is appropriate, engaging, and worth the purchase.

随着两款 DS 游戏进入开发阶段，针对开发成果的研究活动也应运而生。每当新的游戏机制被研发出来，我们就会把学龄前儿童带入内部实验室，让他们评估其简易性和吸引力。除了审查总体的游戏结构，我们还测试游戏不同元素的  $\alpha$  或  $\beta$  版本。一旦开发出了 DS 游戏的完整版本，我们便会会对学龄前儿童和他们的父母进行现场测试，以确保每个游戏元素对小玩家具有实用性、游戏的总体目标对他们来说简单易懂，并且操作起来令人愉悦。我们还收集了家长的反馈，看他们是否认为这是一款合适的、有吸引力的，并且值得购买的游戏。

## Reading Passage 2. The History of Pencil

### 词汇详解

**graphite** *n.* 石墨（重音在第一个音节。）

**strike** *v.* 袭击, 击打（文中出现的是其过去式 *struck*。容易与动词 *stroke* “轻触, 轻抚, 击打”混淆。一般“雷电” *lightning* 作主语时, “击打”都用 *strike*。）

**substance** *n.* 物质（该词主要是从物理、化学特性的角度来看物质, 而 *material* 强调物质的用途、材料。）

**barely** *adv.* 几乎没有（例如“*he barely survived*”的意思是“他差点没有活下来”, 但“他还是活了下来”。要注意与 *rarely* 的区别。）

**infancy** *n.* 婴儿期（多用于比喻, 表示事物发展的初级阶段。）

**ownership** *n.* 所有权（在人物名词后加 *ship* 多表示“该类人物具备的品质、权利等”, 如 *authorship* 表示“著作权”。）

**detect** *v.* 探测, 侦测（*detective* “侦探”即出自该词。）

**encasement** *n.* 装箱, 套子（动词形式为 *encase*, 意为“装套”。）

**wrap** *v.* 包裹（多用于“使用布、纸一类的软材料进行包裹”。另外, *wrap up* 可用于议论文末段, 表示 *conclude* “总结”。）

**string** *n.* 线, 绳, 弦（文中指“线, 绳子”。*guitar* “吉他”的“弦”即该词。还有“*pull some strings*”的用法, 表示“动用一些关系, 走后门”。）

**carpentry** *n.* 木工手艺, 木匠业（来自 *carpenter* “木匠”。）

**compact** *adj.* 压缩的, 紧凑的, 结实的（文中意为“结实的”。CD 即 *compact disk*, 表示“压缩光碟”。该词多用于技术领域。）

**hollow** *v.* 挖空（该词也作形容词, 意思是“空的, 空洞的”。）

**insert** *v.* 插入; 嵌入（也用于电脑操作中, 如 *insert your flash disk* 即表示“插入闪存”。）

**glue** *v.* 用胶水粘贴（作名词时意为“胶水”。引申义为“将……凝聚在一起”。）

**grind** *v.* 研磨（该词过去式为 *ground*, 容易与“地面”相互混淆, 请多注意。）

**clay** *n.* 黏土（习语“*feet of clay*”表示“伟大人物或事物的弱点”。）

**grade** *v.* 评级（作名词时表示“级别”, 如 GPA 的全称是“*grade point average*”, 意为“平均积分点”。）

**successively** *adv.* 接连着地, 相继地（来自形容词 *successive* “后续的, 连续的”。注意与 *successfully* “成功地”加以区别。）

**drastically** *adv.* 剧烈地, 急剧地（程度副词, 表示程度很深。近义词有 *dramatically*, *violently*, *acutely* 等。）

**appetite** *n.* 胃口（常用作比喻, 意为“对……的兴趣或需求”。）

- intellectual** *adj.* 知识的, 智力的 (也可作名词, 表示“知识分子”。)
- refractory** *adj.* 难熔的, 耐火的 (也可用于形容人的性格固执。)
- mould** *n.* 模具 (美式拼法为 mold。也可作动词, 表示“塑造”, 相当于 shape。)
- contribute to** 有助于, 促成, 加强 (本身为中性表达, 可搭配褒义词和贬义词。)
- deposit** *n.* 存量, 存储; 沉淀物 (文中意思为“存量”。)
- gravity** *n.* 重力, 引力 (著名科幻电影《地心引力》的英文名即 Gravity。)
- fiction** *n.* 虚构, 小说 (常用于表示某说法并不真实, 等同于 myth, rumour, urban legend 等。)
- grease** *n.* 油脂, 润滑油 (形容词形式为 greasy, 意为“油腻的”。)
- smudgy** *adj.* 有污渍的 (来自名词 smudge, 意为“污渍”。smudge 作名词时常见的同义替换词有 blemish 和 stain, 都有“污点, 污渍”的意思。)
- capsule** *n.* 胶囊, 太空舱 (引申义为“概要, 简介”。口语中可以用“in a capsule”表达“概括地说, 简明扼要地讲”。)
- an electrical short** *n.* 短路 (electrical 意为“电的, 有关电的”, 例如, “electrical shock”表示“电击, 触电”。)
- backcloth** *n.* 背景 (常见搭配为“against the backcloth of...”。同义替换词还有 background, milieu, backdrop, setting。)
- digitalized** *adj.* 数字化的 (常指通过软硬件手段对资讯和物理运作流程进行电子化控制。)
- prospect** *n.* 前景 (其中 pro- 表示“向前”, 而 spec 表示“看”。prospect 意为“前途, 前景”。)
- bleak** *adj.* 荒凉的, 无希望的 (狄更斯的小说 *Bleak House* 即翻译为《荒凉山庄》。)
- spectrum** *n.* 光谱; 一系列; 各种事物 (常见其引申义用法, 表示“一系列; 各种事物”。)

## 题目详解

### Questions 14-20

#### 思路

此题型为句子完成题, 本质上属于细节填空题。需要首先大致定位原文范围, 再定位每题所在句子, 最后定位原文对应词汇加以填入。

#### 解答

14. 通过地名“Borrowdale”定位到第1段第2句。再依据冠词“a”确定本句有“lightning”, “local tree”和“thunder”三个词可以填入。最后根据“found under a”推断出此处应填写一个表示“地方, 位置”的名词, 故而选择“local tree”。但因字数要求, 去掉形容词“local”, 保留中心语“tree”, 所以正确答案为 tree。
15. 通过观察题干, 发现本题与上一题同属一句话, 可以推断本题大概也在首段内。根

据“dirty to use”定位到首段第四句的“left marks everywhere”。而本句内唯一对“graphite”的性质进行说明的单词只有“soft”，所以正确答案为 soft。

16. 根据题干中的“used”和“sign”定位到首段末句，对应文中的“use”和“mark”。题干中“sign”和空格形成动宾关系，则原文中“mark”的宾语就是答案，所以正确答案为 sheep。
17. 首先根据地名“Britain”定位到首段和第2段。然而，再根据“graphite”定位，发现首段相关内容已针对1-3题出题，本题无对应内容。那么依据顺序原则，本题应出现在第2段。利用“Britain”和“graphite”找到第2段首句“Britain turns out to be the major country where mines of graphite...”，其中“mines”与“graphite”为修饰与被修饰关系，对应题目“在英国发现了 graphite 的……”，故本题答案为 mines。
18. 根据“first pencil”定位到第2段第2句。再根据“wrapped”和“animal skin”定位到第2段第4句，对应文中的“wrapped”和“sheepskin”，与“sheepskin”并列的“string”就是正确答案，所以本题答案为 string。
19. 根据空格前后的语法分析，发现空格应填写名词。该名词为“能使得铅笔芯变得更硬的物质”。根据细节信息“变硬（harder）”和顺序原则定位到第3段第2句的“hardness”。再在本句和相邻句中搜寻“能使铅笔芯变得更硬的物质”，发现第3段第3句的“clay 放得越多，铅笔芯就越硬”，故本题正确答案为 clay。
20. 根据专有名词“Russian astronauts”定位到第5段第2句，直接抓住铅笔种类“grease pencils”，本题正确答案为 grease。

### Questions 21-26

#### 思路

本题型为是非无题，重点解题思路是：审查题目句子的概念在原文出处句里的对应情况。全部概念对应则为“是”，一个概念相矛盾则为“非”，一个概念无对应则为“未给出”。

#### 解答

21. 本题验证的重点是：“第一个制造铅笔的国家是否是意大利”。根据“Italy”定位到第2段第4句，此处谈到意大利最早制作铅笔的方法，并说“这也许是世界上的第一支铅笔”。再往前看，发现在第2段第2句谈到“first pencil”是在别的（英国以外的）地方被发明的。再依顺序看到第4、5句，根据文意发现这个所谓的“别的地方（elsewhere）”指的就是意大利。因此题目句对应原文，本题正确答案为 TRUE。
22. 本题验证的重点是：“德国是否制造铅笔”、“德国制造铅笔时是否用了木材”以及“德国制造铅笔时是否用了多种木材”。根据国家名称“Germany”定位到第2段倒数第2句，对应“German people”。其中，谈到了德国制造铅笔之事——“a superior

- technique (更优越的技术)”,谈到了木材 “wood”。但未谈到 “多种木材”,故该概念无对应内容,本题正确答案为 NOT GIVEN。
23. 本题验证的重点是:“石墨 (graphite) 是否使铅笔芯变得更硬且更尖利”。根据变硬 (harder) 定位到第 3 段第 3 句,发现使铅笔芯变硬的是黏土 (clay)。再回到第 3 段第 1 句,发现铅笔芯内只包含石墨和黏土两种物质。则可得出结论为 “石墨并不是那个使得铅笔芯变硬的物质”,故而题目与原文概念相矛盾,本题正确答案为 FALSE。
24. 本题验证的重点是:“英国现在是否还制造铅笔”。根据细节信息 “Britain” 在全文内搜索查找与 “现在铅笔生产” 有关的信息,定位到第 4 段首句 “England”。注意到 “continued to be made”,表示英国仍然在继续制造铅笔。这与题目概念 “not produced any more (不再制造)” 相矛盾,故本题正确答案为 FALSE。
25. 本题验证的重点是:“美国人在外太空是否用过铅笔”。根据细节信息 “American astronauts” 定位到第 5 段首句。本句是一个长难句。首先,“That...is in fact a fiction” 是本句的主干,为主系表结构,其中主语是一个超长的名词性从句 “That...conditions”,故全句结构为:主语 “That the United States did not use pencils in the outer space till they spent \$1000 to make a pencil to use in zero gravity conditions”,系动词 “is”,状语 “in fact”,表语 “a fiction”。由于 fiction 表示 “虚构”,故 “That...” 整句的内容就是虚假内容。因此当 “That...” 从句内部说 “the United States did not use pencils in the outer space” 的时候,是不成立的。另外,在第 5 段第 3 句,发现 “美国的同行们 (即美国宇航员) 的确在零重力铅笔发明之前在外太空使用了铅笔”。故原文与题目概念相矛盾,本题正确答案为 FALSE。
26. 本题验证的重点是:“铅笔在未来是否还有使用的可能”。根据顺序原则和细节信息 “future” 定位到末段首句 “prospect (前景)”。谈到 “在数字化世界的大背景下,铅笔的未来看似渺茫”,这似乎与题目概念相符合。然而,下一句话 “In reality, it does not” 将前一句话否定了,并且从后面的许多例证可以看出,铅笔的应用前景还很广阔,原文与题目概念相矛盾,故本题正确答案为 FALSE。

## 参考译文

### The History of Pencil

#### 铅笔的历史

The beginning of the story of pencils started with a lightning. **Graphite**, the main material for producing pencil, was discovered in 1564 in Borrowdale in England when a lightning **struck** a local tree during a thunder. Local people found out that the black **substance** spotted at the root of the unlucky tree was different from burning ash of wood. It was soft, thus left marks

everywhere. Chemistry was **barely** out of its **infancy** at the time, so people mistook it for lead, equally black but much heavier. It was soon put to use by locals in marking their sheep for signs of **ownership** and calculation.

铅笔的诞生要从一场雷电说起。1564 年在英国的博罗戴尔，雷鸣中一道闪电劈中了当地的一棵树，继而人们发现了石墨——生产铅笔的主要原料。当地人发现，在这棵不幸的树的根部散落着一种黑色物质，它不同于木材燃烧后的灰烬。该物质由于质地柔软，留下的痕迹随处可见。当时，化学这门学科才刚刚开始形成，于是人们将石墨误认为是“铅”，一种同样是黑色但更重的物质。很快石墨便投入使用，当地人用它在羊身上做记号，以标记所有权和统计数量。

Britain turns out to be the major country where mines of graphite can be **detected** and developed. Even so, the first pencil was invented elsewhere. As graphite is soft, it requires some form of **encasement**. In Italy, graphite sticks were initially **wrapped in string** or sheepskin for stability, becoming perhaps the very first pencil in the world. Then around 1560, an Italian couple made what are likely the first blueprints for the modern, wood-encased **carpentry** pencil. Their version was a flat, oval, more **compact** type of pencil. Their concept involved the **hollowing** out of a stick of juniper wood. Shortly thereafter in 1662, a superior technique was discovered by German people: two wooden halves were carved, a graphite stick **inserted**, and the halves then **glued** together — essentially the same method in use to this day. The news of the usefulness of these early pencils spread far and wide, attracting the attention of artists all over the known world.

事实上，英国石墨矿藏丰富，适宜开发开采。即便如此，第一支铅笔却发明于其他地方。由于石墨比较柔软，必须将其制成一定形状进行封装。在意大利，石墨棒起初是用细绳或羊皮包装固定，这也许是世界上的第一支铅笔。而后在 1560 年左右，一对意大利夫妇制成了由木材包裹的铅笔，它很可能是现代铅笔的雏形。这支铅笔呈扁平的椭圆形，也更为结实。他们的设计理念是将桤木挖空。此后不久，在 1662 年，德国人发明了一种更优越的技术：将切成两半的木头挖槽，然后置入石墨棒，再将两块木头用胶水粘住——从本质上来说，这与现在所使用的方法是一样的。这些早期铅笔十分好用的消息广泛流传，并引起了世界各地艺术家的注意。

Although graphite core in pencils is still referred to as lead, modern pencils do not contain lead as the “lead” of the pencil is actually a mix of finely ground graphite and clay powders. This mixture is important because the amount of clay content added to the graphite depends on the intended pencil hardness, and the amount of time spent on **grinding** the mixture determines the quality of the lead. The more **clay** you put in, the higher hardness the core has. Many pencils



across the world, and almost all in Europe, are **graded** on the European system. This system of naming used B for black and H for hard; a pencil's grade was described by a sequence or successive Hs or Bs such as BB and BBB for **successively** softer leads, and HH and HHH for successively harder ones. Then the standard writing pencil is graded HB.

尽管铅笔是石墨芯，我们仍称之为“铅”笔，现代铅笔其实并不含铅，笔芯实则是由精细的石墨粉和黏土混合而成。混合剂至关重要，因为黏土的含量决定了铅笔的硬度，而混合物的研磨时长则决定了笔芯的质量。黏土添加得越多，笔芯就越硬。几乎整个欧洲，乃至全球的铅笔规格均使用欧洲标准。这一命名标准用 B 表示黑度，用 H 表示硬度；一支铅笔的规格是由 H 或 B 字母叠加的个数来表示的，比如：BB 和 BBB，B 的个数越多，铅笔就越软；HH 和 HHH，H 的个数越多，铅笔就越硬。标准的书写铅笔的规格则是 HB。

In England, pencils continued to be made from whole sawn graphite. But with the mass production of pencils, they are getting **drastically** more popular in many countries with each passing decade. As demands rise, **appetite** for graphite soars. According to the United States Geological Survey (USGS), world production of natural graphite in 2012 was 1,100,000 tonnes, of which the following major exporters are: China, India, Brazil, North Korea and Canada. However, much in contrast with its **intellectual** application in producing pencils, graphite was also widely used in the military. During the reign of Elizabeth I, Borrowdale graphite was used as a **refractory** material to line **moulds** for cannonballs, resulting in rounder, smoother balls that could be fired farther, **contributing to** the strength of the English navy. This particular **deposit** of graphite was extremely pure and soft, and could easily be broken into sticks. Because of its military importance, this unique mine and its production were strictly controlled by the Crown.

在英国，铅笔的制作依旧以纯石墨为原材料。随着大规模的生产 and 时间的推移，铅笔在许多国家变得更受欢迎。随着市场需求的上升，石墨的需求也随之飙升。据美国地质勘探局 (USGS) 发布的数据，2012 年世界天然石墨产量为 110 万吨，其中主要出口国有：中国、印度、巴西、朝鲜和加拿大。然而，除了用于生产铅笔之外，石墨也被广泛运用于军事领域。伊丽莎白一世统治时期，博罗戴尔石墨作为一种耐火材料，被用于在炮弹模具上画线，这使得炮弹变得更圆、更光滑，射程更远，进而增强了英国海军的实力。这种特殊的石墨矿藏非常纯，也极其软，且易制成棒状。由于其重要的军事价值，英国皇室对这种独特的矿藏及其开采生产进行了严格的管控。

That the United States did not use pencils in the outer space till they spent \$1000 to make a pencil to use in zero **gravity** conditions is in fact a **fiction**. It is widely known that astronauts in Russia used **grease** pencils, which don't have breakage problems. But it is also a fact that their

counterparts in the United States used pencils in the outer space before real zero gravity pencil was invented. They preferred mechanical pencils, which produced fine lines, much clearer than the **smudgy** lines left by the grease pencils that Russians favoured. But the lead tips of these mechanical pencils broke often. That bit of graphite floating around the space **capsule** could get into someone's eye, or even find its way into machinery or electronics, causing **an electrical short** or other problems. But despite the fact that the Americans did invent zero gravity pencils later, they stuck to mechanical pencils for many years.

在花费 1000 美元制造零重力铅笔之前, 美国并没有在太空中用过铅笔, 这种说法实属虚构。众所周知, 俄罗斯宇航员使用油脂铅笔, 因为它不存在断裂的问题。但事实上, 他们的美国同行(即美国宇航员)在真正的零重力铅笔发明之前也在太空中使用过铅笔。他们更偏爱自动铅笔, 因其笔触细致, 与俄罗斯人钟爱的油脂铅笔相比, 前者线条更为清晰而后者则显得污浊。但是自动铅笔的笔芯很容易折断。断掉的部分会漂浮在太空舱里, 可能会进入宇航员的眼睛, 甚至是机器设备中, 从而导致短路或其他问题。尽管美国后来的确发明了零重力铅笔, 但他们仍然在许多年里坚持使用自动铅笔。

Against the **backcloth** of a **digitalized** world, the **prospect** of pencils seems **bleak**. In reality, it does not. The application of pencils has by now become so widespread that they can be seen everywhere, such as classrooms, meeting rooms and art rooms, etc. A **spectrum** of users are likely to continue to use it into the future: students to do math works, artists to draw on sketch pads, waiters or waitresses to mark on order boards, make-up professionals to apply to faces, and architects to produce blue prints. The possibilities seem limitless.

在这个数字化世界的背景下, 铅笔的前景看似暗淡, 但事实却并非如此。现如今, 铅笔的应用已经变得非常普遍, 它们在教室、会议室和美术室等地方随处可见。不同的用户未来仍可能继续使用铅笔, 例如: 学生做数学作业, 艺术家画素描, 服务员下单, 化妆师上妆, 建筑师绘制蓝图。铅笔的前景不可限量。

### Reading Passage 3. Motivating Drives

#### 词汇详解

**drive** v. 推动; 开车 n. 内驱力, 驱动力(文中既出现了 drive 作名词的用法, 也出现了作动词的用法。drive 作名词时, 指“驱动力”; 作动词时, 除了“开车”的意思外, 也有“使或逼迫某人处于某种状态或做某事”的意思。例句: The urge to survive drove them on. 求生的欲望驱使他们继续努力。)

**vital** *adj.* (对某事物的存在、成功或运作) 极重要的, 必不可少的 (作定语时还可表示“与生命有关的, 维持生命所必需的”。在雅思考试中, 经常和 **important** 同义替换。)

**enhance** *v.* 增强; 提高; 美化 (经常与 **increase**, **improve** 同义替换。名词是 **enhancement**, 意为“用以增强、提高或美化之物”。要注意 **en-** 是个很常见的动词前缀, 表示“加强”之意。)

**bond** *v.* 结合 (它也能作名词, 表示“将人和团体联合起来的事物、联系、关系等”。例句: *The trade agreement helped to strengthen the bonds between the two countries.* 这项贸易协定有助于加强两国之间的联系。)

**commitment** *n.* 致力; 献身; 承诺 (动词形式为 **commit**, 常用于 **commit crime**, 意为“犯罪”, 也可解释为“保证, 承担”, 例如: *commit oneself to a course of action* 保证采取行动。)

**persistence** *n.* 坚持不懈, 执意, 持续, 存留 (动词是 **persist**, 常见用法有: *persist in something/doing something*, 意为“坚持, 执意”。形容词为 **persistent**, 意为“坚持的, 不屈不挠的”。)

**manifest** *v.* 清楚地表明, 显示, 证明 (固定搭配有: *manifest oneself/themselves*, 意为“显露, 出现”。例句: *The symptoms manifested themselves ten days later.* 十天后出现了症状。)

**quest** *n.* 寻求, 搜索; 追求 (也可以作动词, 经常和 **for** 搭配, 例如: *continue to quest for clues*, 意为“继续寻求线索”。它很容易和 **request** 混淆, 后者意为“要求”, 经常和 **ask for** 同义替换。)

**allocation** *n.* 配给, 分配 (动词是 **allocate**, 例如: *allocate funds for repair work*, 意为“拨出经费用于维修”。**allocate** 有时还会和 **distribute** 同义替换, 意为“分配, 分发”。)

**merge** *v.* (尤用于商业) 合并 (例句: *The bank merged with its major rival.* 该银行与其主要对手合并了。)

**fulfill** *v.* 履行 (常见搭配: *fulfill commitment*, 意为“履行承诺”。**fulfill** 还有一个释义, 即“满足, 符合”, 常和 **desire**, **expectation** 搭配。)

## 题目详解

### Questions 27-31

#### 解答

27. 根据细节信息“study of motivation”定位至原文第1段和第2段。选项A说“近几年开始关注员工激励”, 而文章第1段第1行说到“Scientists have been researching the way to get employees motivated for many years.”这说明“已关注许多年”, 选项A错误。选项B讲“了解激励员工重要性的原因与员工薪水有关”, 而文章第2段第2句说“*It is important to study the motivation of employees because it is related to the emotion and behaviour of employees.*”这说明重要性“与员工情感和行为有关”, 信息不一致, 此

- 项错误。选项 C 中的“too theoretical”是对第 1 段中“limitations”的总结，原文运用修辞手法说到“It is like studying the movements of car without taking out the engine.”证明理论层面的和实际层面的冲突。原文与选项表达意思一致，选项 C 正确。选项 D 中的利润是无中生有的。从第 2 段开头句看来，激励理论对于公司组织的生存发展起到重要作用，没有提到对公司的利润产生影响，此选项错误。所以正确答案为 C。
28. 本题是关于“study of people's drives”的推测，第 2 段中提到“It is important to study the motivation of employees because it is related to the emotion and behaviour of employees”，说明员工激励或积极性与其情感和行为有关，而激励的本质是让员工的行为向积极方向改变，所以选项 A 正确。选项 B 的关键词有“negatively”，“affect”，“emotions”，文章第 2 段中虽然提到员工激励与员工的情绪有关，但是从文章的主旨来看，它是积极地影响员工情绪，而不是消极地影响员工情绪，选项 B 错误。选项 C 提到“increase companies' productions 增加公司产量”。这一点并不能从原文直接推导出来，第 1 段只是说让整个队伍变得更“productive 有效率”，此选项错误。选项 D，根据“outstanding performance”定位到第 3 段，提到“Thus the way that outstanding performance is recognised...”，指卓越的表现得到认可并予以奖励，并没有将“满足员工需求”与“会使得他们有卓越表现”联系起来，本选项不正确。所以本题选 A。
29. 根据题目中的“paragraph three”定位到第 3 段。选项 A 中的“drive to acquire and achievement element”虽然在文中有所提及，但不是员工有动力的原因，且本身未经过同义替换的选项应该引起考生怀疑，该选项错误。选项 B 中 recognition（认可，褒奖）虽然是原因之一，但是 outstanding performance 却不是原因，而是需要达到的最终目的，B 选项不正确。选项 C 中的 career 方面在文中虽有提到，但不是使得员工有动力的原因，而 a thousand dollar check 只是鼓励方式的一个例子。第 3 段中“...letter of appreciation...the optimisation of physical reward but also on moving other levels within the organisation that can drive motivation”则说明了对员工的“good performance”的认可（recognition）是很重要的，而且“financial incentive”就是“physical reward”的另一种表现。在此段中，1000 美金的支票其实就很好的“financial reward”。故选项 D 为正确答案。
30. 根据题目定位到文章第 5 段。选项 A 中“understand the development of...”意为“更好地理解公司的发展”，这个信息根本不存在于此段落中，此项不选。选项 B 强调让员工感到自己的工作有意义，与文中“Employees don't want to do meaningless things or monotonous job”表达的意思一致，本项为正确答案。虽然本段第 2 句提到“goals”，但是“stretch goals”与题目中的“higher goals”不能相互替换，原文本意与选项意思也不相同，因此选项 C 不正确。从本段最后两句可知，“Drive to comprehend”是给员工提供有意义而且不单调枯燥的工作，这与选项 D 中的“repetitive tasks”意思相反，此项不正确。综上所述，正确答案是 B。

31. 根据题目定位到文章第6段。“Organisational resource”在文章中虽然有提到,但没有说分配起来很困难, A 选项错误。选项 B 是对“drive to defend”和“drive to comprehend”的比较,在段落中没有提及,属于无中生有,该项不正确。选项 C 中的“voice their own opinions”与段落中“express ourselves freely”表达的意思一致,所以选项 C 正确。选项 D 提到的是与合并公司“merged company”的联系,而文中提到的是与公司的联系,此处为偷换概念,该选项不正确。综上所述,本题正确答案为 C。

### Questions 32-34

#### 解答

选项 A “Employees will be motivated if they feel belonged to the company” 是正确选项。第4段原句可以印证此答案的正确性,“Employees will be motivated if they find personal belonging to the company”。两句话表达的意思一致,本选项正确。

选项 B “If employees get an opportunity of training and development program, their motivation will be enhanced” 应该排除。因为全文并没有提及“training and development program”。

选项 C 提到了“employees’ working goals”和“organisational objectives”。文章在第1段和第5段分别提到了员工目标与公司目标,但是文中并没有直接提到这两者有因果关系,所以选项 C 不正确。

选项 D 提到公司应该“increase their salary”来激励员工。文章第3段虽然有提到员工的动力可以通过实物奖励来达到,但是从第3段的逻辑重心不难发现,重点还是在强调“recognition”对员工激励的重要性。选项中的“first priority”说得过于片面,所以选项 D 不正确。

选项 E “If employees find their work lacking challenging, they will leave the company” 是正确选项。第5段中说到公司应该为员工提供“simulation that challenges them”,这与选项中的“challenging”相对应。而文中后面一句“If the job didn’t provide them with personal meaning and fulfillment, they will leave the company”和 E 选项后半句直接对应,故本选项正确。

选项 F “Employees will worry if their company is sold” 是正确选项。第6段中提到“If their companies are merged with another, they will show worries”与选项中直接对应。需要注意的是,一个公司出售和一个公司与其他公司合并,可视为同义替换。

所以,综上所述,32-34 题的正确答案为 A, E, F。

## Questions 35-40

## 解答

35. 利用顺序原则和细节信息“lead to”和“high work motivation”进行定位。第2段中说到, 员工动力可以通过研究四种驱动力来达到, 而不是题干所说的“提高收入”, 所以本题答案为 NO。
36. 本题关键词为“local companies”, “global companies”和“benefit more”。纵观全文, 发现“全球性企业”只在第7段略有提及, 而“当地公司”并没有提及。此题中的比较关系更是无从谈起。题目信息在原文信息的基础上无法判断, 所以本题答案为 NOT GIVEN。
37. 利用顺序原则和细节信息“the most commitment”定位到第4段, 文中的(Drive to Bond) “In the meantime, the most commitment will be achieved by the employee on condition that...”说明了员工的最大“commitment”是来自“drive to bond”, 而不是来源于“drive to comprehend”。题目信息与原文信息不符, 所以本题答案为 NO。
38. 利用顺序原则和细节信息“unusual attitude toward the merging”定位到原文第6段末句和第8段末句。结合第6段末句和第8段中的“on the merging of...shows that employees in former company show an unusual cooperating attitude”, 可知原文与题干描述的意思一致, 所以本题答案为 YES。
39. 利用顺序原则和细节信息“relationship between”定位到第7段第1句“Two studies have been done to find the relations between the four drives and motivation.”即有两个研究项目研究了四种驱动力与员工动力之间的关系, 这与题干中所说的研究分析“自然驱动力”和“员工态度”之间的关系并不对应, 所以本题答案为 NO。
40. 利用顺序原则和细节信息“Rewarding system”定位至原文第8段, 但原文中并没有提及引起公司“lose profit”的信息。题目信息在原文信息的基础上无法判断, 所以本题答案为 NOT GIVEN。

## 参考译文

## Motivating Drives

## 驱动力

Scientists have been researching the way to get employees motivated for many years. This research is a relational study, which builds the fundamental and comprehensive model for study. This is especially true when the business goal is to turn unmotivated teams into productive ones. But their researches have limitations. It is like studying the movements of car without taking out the engine.



科学家们多年来一直在研究如何提高员工的工作积极性。此项研究属于关系型研究，它为后续研究建立了基础综合模型。当企业的目标是把懈怠的团队打造成核心力量时，它尤为适用。但这些研究也有局限性，就好像是要研究汽车的运转却没有取出发动机一样。

Motivation is what **drives** people to succeed and plays a **vital** role in **enhancing** an organisational development. It is important to study the motivation of employees because it is related to the emotion and behaviour of employees. Recent studies show there are four drives for motivation. They are the drive to acquire, the drive to **bond**, the drive to comprehend and the drive to defend.

积极性，即推动个人成功的动力，对促进企业发展起着至关重要的作用。研究员工积极性的意义在于它与员工的情感和行为有关。最近的研究表明，要调动员工积极性，可从四种驱动力着手。它们分别是：获取、结合、理解和防御。

### The Drive to Acquire

The drive to acquire must be met to optimise acquire aspect as well as the achievement element. Thus the way that outstanding performance is recognised, the type of perks that is provided to polish the career path. But sometimes a written letter of appreciation generates more motivation than a thousand dollar check, which can serve as the invisible power to boost business engagement. Successful organisations and leaders not only need to focus on the optimisation of physical reward but also on moving other levers within the organisation that can drive motivation.

“获取”这一驱动力必须得以满足，以使收获和成就最优化。因此，杰出的表现需得到认可，并给予奖励，以使职业生涯光彩照人。但有时一封赞赏信比一千美元的支票更让人受到鼓舞，这可以作为促进员工积极参与公司业务的无形力量。成功的企业和领导不仅要注重物质奖励的优化，还要在公司内部调动其他激励员工的动力。

### The Drive to Bond

The drive to bond is also key to driving motivation. There are many kinds of bonds between people, like friendship, family. In company, employees also want to be an essential part of company. They want to belong to the company. Employees will be motivated if they find personal belonging to the company. In the meantime, the most **commitment** will be achieved by the employee on condition that the force of motivation within the employee affects the direction, intensity and **persistence** of decision and behaviour in company.

“结合”是另一至关重要的驱动力。情感联系有很多种形式，如友谊、亲情。而在公司，员工也想成为公司不可或缺的一部分。他们想要有归属感。一旦有了这种归属感，员工便会受到激励。同时，当员工意识到自身与公司的“结合”会影响到公司的决策和行动



方向、强度和持久性时，员工的积极性会最大程度地被调动起来。

### The Drive to Comprehend

The drive to comprehend motivates many employees to higher performance. For years, it has been known that setting stretch goals can greatly impact performance. Organisations need to ensure that the various job roles provide employees with simulation that challenges them or allow them to grow. Employees don't want to do meaningless things or monotonous job. If the job didn't provide them with personal meaning and fulfillment, they will leave the company.

“理解”这一驱动力会让员工有更出色的工作表现。设定发展目标对员工的表现影响深远，这一点多年来已为人熟知。公司需要确保各个岗位能为员工提供自我挑战及成长的机会。员工不愿意做无意义或单调的工作。一旦工作缺乏个人意义和满足感，他们便会离开公司。

### The Drive to Defend

The drive to defend is often the hardest lever to pull. This drive **manifests** itself as a **quest** to create and promote justice, fairness, and the ability to express ourselves freely. The organisational lever for this basic human motivator is resource **allocation**. This drive is also met through an employee feeling connection to a company. If their companies are **merged** with another, they will show worries.

“防御”往往是最难实现的驱动力。它表现为要求公司创造和推动公正与公平，并且能使员工畅所欲言。而公司对这种人类最基本的驱动力的拿捏在于资源分配。当员工感受到自己和公司联系在一起时，这种驱动力便会得到满足。倘若公司与其他公司合并，员工便会产生担忧情绪。

Two studies have been done to find the relations between the four drives and motivation. The article based on two studies was finally published in *Harvard Business Review*. Most authors' arguments have laid emphasis on four-drive theory and actual investigations. Using the results of the surveys which executed with employees from Fortune 500 companies and other two global businesses (P company and H company), the article mentions about how independent drives influence employees' behaviour and how organisational levers boost employee motivation.

有两项研究试图发现这四种驱动力和员工积极性之间的关系。基于研究结果的文章最终在《哈佛商业评论》上发表。作者的大多数论点都在强调四驱动理论和实际调查。参与调查的员工来自世界 500 强企业和其他两家全球性企业（P 公司和 H 公司）。文章提到了每一种单独的驱动力是如何影响员工表现的，以及公司的手段与措施又是如何激发员工积极性的。

The studies show that the drive to bond is most related to **fulfilling** commitment, while the drive to comprehend is most related to how much effort employees spend on works. The drive to acquire can be satisfied by a rewarding system which ties rewards to performance, and gives the best people opportunities for advancement. For drive to defend, a study on the merging of P company and H company shows that employees in former company show an unusual cooperating attitude.

研究表明,“结合”这一驱动力与履行承诺最密切相关,而“理解”则与员工的努力程度相联系。“获取”可以通过与绩效挂钩的奖励制度亦或是提供晋升机会来实现。就“防御”而言,对P公司和H公司合并的一项研究表明,合并前的老员工有着非凡的合作态度。

The key to successfully motivate employees is to meet all drives. Each of these drives is important if we are to understand employee motivation. These four drives, while not necessarily the only human drives, are the ones that are central to the unified understanding of modern human life.

成功激励员工的关键在于满足所有的动因。倘若我们想要了解如何激发员工积极性,那么每一个因素都至关重要。尽管这四个因素不一定是唯一的驱动力,但却是当代人生活中统一的核心认知。



# Answer Keys

## Test 1

Each question correctly answered scores 1 mark. **CORRECT SPELLING IS NEEDED IN ALL ANSWERS.**

### Reading Passage 1, Questions 1-13

- 1 FALSE
- 2 FALSE
- 3 NOT GIVEN
- 4 TRUE
- 5 TRUE
- 6 flower
- 7 prejudice
- 8 reverse
- 9 meat
- 10 crops
- 11 soil
- 12 cultivation
- 13 investment

### Reading Passage 2, Questions 14-26

- 14 TRUE
- 15 FALSE
- 16 TRUE
- 17 NOT GIVEN
- 18 elm
- 19 lubricating oil
- 20 18 to 32

- 21 dish/flat cone
- 22 struts
- 23 bronze
- 24 neck
- 25 sand
- 26 tomb complex

### Reading Passage 3, Questions 27-40

- 27 E
- 28 D
- 29 C
- 30 B
- 31 G
- 32 F
- 33 F
- 34 E
- 35 D
- 36 A
- 37 chickens
- 38 adenovirus 36/AD-36
- 39 gene
- 40 vaccine

If you score...

| 0-12                                                                                                                                                                        | 13-26                                                                                                                                                     | 27-40                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| you are highly unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS. | you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS. | you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable. |

## Test 2

Each question correctly answered scores 1 mark. **CORRECT SPELLING IS NEEDED IN ALL ANSWERS.**

### Reading Passage 1, Questions 1-13

- 1 NOT GIVEN
- 2 TRUE
- 3 FALSE
- 4 NOT GIVEN
- 5 FALSE
- 6 TRUE
- 7 TRUE
- 8 stonemason
- 9 Gian Giorgio Trissino
- 10 Inigo Jones
- 11 temple (architecture)
- 12 Quattro Libri dell'Architettura
- 13 benevolent calm

### Reading Passage 2, Questions 14-26

- 14 v
- 15 viii
- 16 vi
- 17 vii
- 18 iii
- 19 i
- 20 ii

- 21 equal opportunity
- 22 internal costs
- 23 C
- 24 C
- 25 A
- 26 B

### Reading Passage 3, Questions 27-40

- 27 C
- 28 A
- 29 B
- 30 D
- 31 I
- 32 D
- 33 J
- 34 F
- 35 C
- 36 YES
- 37 NOT GIVEN
- 38 NO
- 39 NOT GIVEN
- 40 YES

If you score...

| 0-12                                                                                                                                                                        | 13-26                                                                                                                                                     | 27-40                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| you are highly unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS. | you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS. | you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable. |

## Test 3

Each question correctly answered scores 1 mark. **CORRECT SPELLING IS NEEDED IN ALL ANSWERS.**

### Reading Passage 1, Questions 1-13

- 1 YES
- 2 NOT GIVEN
- 3 NO
- 4 NOT GIVEN
- 5 YES
- 6 NO
- 7 NOT GIVEN
- 8 rock
- 9 teeth
- 10 descendants
- 11 canoes
- 12 (prevailing) trade winds
- 13 seabirds and turtles

### Reading Passage 2, Questions 14-26

- 14 FALSE
- 15 NOT GIVEN
- 16 TRUE
- 17 TRUE
- 18 A
- 19 E
- 20 F

- 21 C
- 22 D
- 23 scalp electrodes
- 24 inspiration and elaboration
- 25 alpha wave activity
- 26 difference

### Reading Passage 3, Questions 27-40

- 27 G
- 28 A
- 29 C
- 30 B
- 31 H
- 32 D
- 33 C
- 34 A
- 35 B
- 36 fruit
- 37 plant toxins
- 38 birth
- 39 water
- 40 drought

If you score...

| 0-12                                                                                                                                                                        | 13-26                                                                                                                                                     | 27-40                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| you are highly unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS. | you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS. | you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable. |

## Test 4

Each question correctly answered scores 1 mark. **CORRECT SPELLING IS NEEDED IN ALL ANSWERS.**

### Reading Passage 1, Questions 1-13

- 1 TRUE
- 2 FALSE
- 3 TRUE
- 4 NOT GIVEN
- 5 TRUE
- 6 FALSE
- 7 NOT GIVEN
- 8 shin bone
- 9 slow walker
- 10 cheetah
- 11 run fast
- 12 blunt
- 13 crush

### Reading Passage 2, Questions 14-26

- 14 A
- 15 B
- 16 B
- 17 A
- 18 A
- 19 C
- 20 E

- 21 D
- 22 C
- 23 H
- 24 F
- 25 A
- 26 C

### Reading Passage 3, Questions 27-40

- 27 YES
- 28 NOT GIVEN
- 29 NO
- 30 YES
- 31 B
- 32 C
- 33 A
- 34 D
- 35 B
- 36 B
- 37 F
- 38 E
- 39 A
- 40 D

If you score...

| 0-12                                                                                                                                                                        | 13-26                                                                                                                                                     | 27-40                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| you are highly unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS. | you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS. | you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable. |

## Test 5

Each question correctly answered scores 1 mark. **CORRECT SPELLING IS NEEDED IN ALL ANSWERS.**

### Reading Passage 1, Questions 1-13

- 1 C
- 2 A
- 3 D
- 4 A
- 5 B
- 6 A
- 7 B
- 8 E
- 9 G
- 10 NO
- 11 NOT GIVEN
- 12 NOT GIVEN
- 13 YES

### Reading Passage 2, Questions 14-26

- 14 photographic film
- 15 Bakelite
- 16 switches
- 17 Britain/UK
- 18 fireproof
- 19 clear and glass-like
- 20 rigid

- 21 FALSE
- 22 NOT GIVEN
- 23 FALSE
- 24 TRUE
- 25 FALSE
- 26 TRUE

### Reading Passage 3, Questions 27-40

- 27 D
- 28 B
- 29 A
- 30 C
- 31 A
- 32 A
- 33 high tides
- 34 agricultural production
- 35 coastal boundaries
- 36 NOT GIVEN
- 37 NOT GIVEN
- 38 NO
- 39 YES
- 40 NO

### If you score...

| 0-12                                                                                                                                                                        | 13-26                                                                                                                                                     | 27-40                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| you are highly unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS. | you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS. | you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable. |



## Test 6

Each question correctly answered scores 1 mark. **CORRECT SPELLING IS NEEDED IN ALL ANSWERS.**

### *Reading Passage 1, Questions 1-13*

- 1 abilities
- 2 parents
- 3 markets
- 4 siblings
- 5 experienced
- 6 NOT GIVEN
- 7 TRUE
- 8 TRUE
- 9 FALSE
- 10 firm
- 11 simplicity
- 12 full version
- 13 feedback

### *Reading Passage 2, Questions 14-26*

- 14 tree
- 15 soft
- 16 sheep
- 17 mines
- 18 string
- 19 clay
- 20 grease

- 21 TRUE
- 22 NOT GIVEN
- 23 FALSE
- 24 FALSE
- 25 FALSE
- 26 FALSE

### *Reading Passage 3, Questions 27-40*

- 27 C
- 28 A
- 29 D
- 30 B
- 31 C
- 32 A
- 33 E
- 34 F
- 35 NO
- 36 NOT GIVEN
- 37 NO
- 38 YES
- 39 NO
- 40 NOT GIVEN

### **If you score...**

| 0-12                                                                                                                                                                        | 13-26                                                                                                                                                     | 27-40                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| you are highly unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS. | you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS. | you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable. |

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## 9分达人论剑雅思

2015年-2009年6套雅思阅读真题

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