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职称英语通关9套题系列丛书

职称英语 通关9套题

理工类 B级

全国职称英语考试命题研究组 / 组编

郭英剑 / 丛书主编

Final 9
Test Papers
to Pass 2014 English Test for
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4套仿真预测，提前入场



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职 称 英 语 通 关 9 套 题 系 列 丛 书

2014

丛书主编：郭英剑

组 编：全国职称英语考试命题研究组

参 编：张秀峰 梁莉娟 刘启升 孟宪华 李妙华 张 红

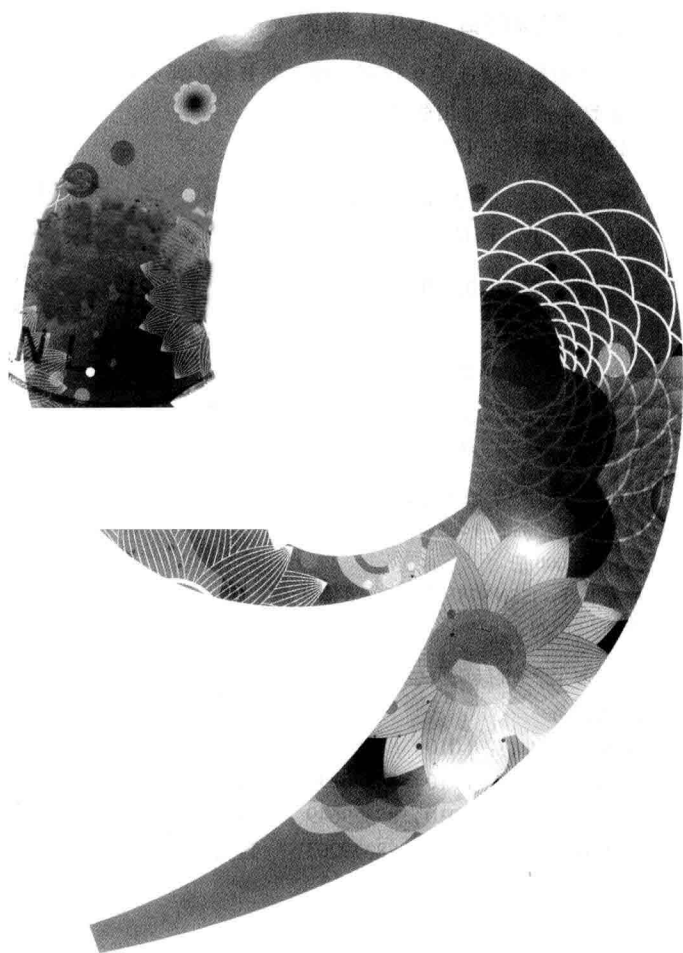
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职称英语

通关9套题

理工类 B级



机械工业出版社
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《2014 职称英语通关9套题(理工类B级)》为5+4的体例,一方面深度剖析2009~2013年5年的真题,体例按照【答案】、【题干】、【解析】、【考点延伸】四个部分来设计。【答案】明确标出正确选项;【题干】对题目和选项进行了完整的中文翻译,以便考生做真题就能复习大量词汇,省去查词典之苦;【解析】对本题正确答案进行了全面完整的分析;【考点延伸】则对该题体现的考点进行了延展,以达到举一反三的目的。另一方面设置4套高度仿真的预测试题,解析部分也颇具深度和高度,使考生在历年真题的基础上,有机会将自己所学所知进行强化训练,提前体验亲临考场的感觉。

本书目的在于“从历年真题学习考点,做历年真题以通过考试”,用目前市场上其他图书没有使用的方式来剖析真题,将真题价值最大化,帮助考生用最少的时间和最小的投入,成功通过2014年职称英语理工类B级考试,顺利晋升职称。

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丛书序



但凡参加职称英语考试的考生，大都工作忙、时间紧、压力大，晋升职称的刚性需求很高。在职业生涯发展的道路上，广大考生平时工作接触英语不多，加之英语基础比较薄弱，职称评定时英语这一关总是如鲠在喉，但又决不能轻言放弃。是的，谁不想一次性通过呢？

在这种情况下，考生如何能在有限的时间、精力、金钱投入下，成功通过 A、B、C 级的考试呢？经过为上万人次的成功培训后，我们发现，全面深入地掌握历年真题是成功的关键。目前市面上各种“历年真题及模拟题”如汗牛充栋，但一览其模式之后，却发现真题的价值在这种模式下根本无法发挥其指导性的作用。简单总结起来，真题有以下特点：1. 囊括了所有考点；2. 涉猎了全部题型；3. 有一定程度的重复。

因此，我们提出一个口号：从历年真题学习考点，做历年真题以通过考试！为了让历年真题充分发挥其应有的价值，让考生朋友们用最少的时间、最小的投入赢得最大的回报率，我们特意编写了这套《2014 职称英语通关 9 套题》，针对不同类别和级别，共 9 册：《2014 职称英语通关 9 套题（综合类 A 级）》、《2014 职称英语通关 9 套题（综合类 B 级）》、《2014 职称英语通关 9 套题（综合类 C 级）》、《2014 职称英语通关 9 套题（理工类 A 级）》、《2014 职称英语通关 9 套题（理工类 B 级）》、《2014 职称英语通关 9 套题（理工类 C 级）》、《2014 职称英语通关 9 套题（卫生类 A 级）》、《2014 职称英语通关 9 套题（卫生类 B 级）》、《2014 职称英语职称英语通关 9 套题（卫生类 C 级）》。

本丛书透彻分析了 2009—2013 年真题，将每个考题体现的考点和隐藏的考点如数展现，引导考生朋友们体验真题的同时，更好地把握 2014 年考试命题趋势和特点。同时为了让考生在通过真题学到考点和技巧后进行强化练习，本丛书组编了 4 套高度仿真模拟题，并对模拟题进行深度解析，让考生深刻把握命题命脉。

本丛书有以下特点：

1. 名牌机构策划，名师主笔

本丛书由职业资格考试考前培训领军机构优路教育策划，博士生导师、享受国务院政府特殊津贴专家郭英剑教授领衔，多位一线培训名师参与编写。他们深谙命题规律，熟知在职考生特点，强调方法技巧，侧重学习方式与效果的匹配。

2. 最新五年真题，深度剖析

本丛书对 2009—2013 年真题进行了深度剖析，【答案】明确标出正确选项；【题干】对题目和选项进行了完整的中文翻译，以便考生做真题时就能复习大量词汇，省去查词典之苦；【解析】对本题正确答案进行了深度分析；【考点延伸】则对该题体现的考点进行了延展，以便达到举一反三的目的。“从历年真题出发，找到 2014 考题”的目的在潜移默化

化中就能实现。

3. 四套仿真预测，提前入场

本丛书提供了四套高度仿真的模拟试题，解析部分具深度和高度，使考生在历年真题的基础上，有机会将自己所学所知进行强化训练，提前体验亲临考场的感觉。

4. 多种附赠服务，强大助力

本丛书配有超值赠送服务，由优路教育（www.niceloo.com）提供专业答疑及在线技术支持。每本书均附赠“优路教育 2014 年职称英语真题冲刺密训班”（16 学时，价值 520 元）的高清视频网络课程。2013 年 11 月 1 日以后，刮开封面的账号和密码，登陆 www.niceloo.com，根据“图书赠送课程学习流程”进行学习，从而为考生营造“学真题 + 做真题 + 讲真题”的氛围。

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本丛书体例设置脉络清晰，内容撰写针对性强，考点剖析深刻，技巧总结到位，加上附赠超值课程和服务，是广大职称英语考生必选的复习资料。真诚希望本丛书能助大家一臂之力，顺利通过考试！

编 者

2013 年 8 月 1 日

写在前面的话：关于职称英语考试的那些事

职称英语考试分为三个类别（综合、理工、卫生），每个类别又分为三个级别，而且重点考查的是应试者阅读英文专业文献的能力，因而，职称英语考试对不同级别的应试者提出了不同的要求：

申报 A 级的应试者要求应识别 6 000 个左右的单词和一定数量的短语，并要求在考试规定的时间内完成约 3 000 词的阅读任务。A 级考试中，每篇文章的长度为 400 词左右，要求应试者能正确理解所读材料的内容。

申报 B 级的应试者要求应识别 5 000 个左右的单词和一定数量的短语，并要求在考试规定的时间内完成约 2 600 词的阅读任务。B 级考试中，每篇文章的长度为 350 词左右，要求应试者能正确理解所读材料的内容。

申报 C 级的应试者要求应识别 4 000 个左右的单词和一定数量的短语，并要求在考试规定的时间内完成约 2 200 词的阅读任务。C 级考试中，每篇文章的长度为 300 词左右，要求应试者能正确理解所读材料的内容。

虽然对词汇量要求有所不同，但所有类别和级别的考试题型都是一样的，共分六大题型：词汇选项、阅读判断、概括大意与完成句子、阅读理解、补全短文、完形填空，分值具体分布如下：

题型	单位分值	题量	该部分总分
词汇选项	1 分	15	15 分
阅读判断	1 分	7	7 分
概括大意与完成句子	1 分	8	8 分
阅读理解	3 分	15	45 分
补全短文	2 分	5	10 分
完形填空	1 分	15	15 分
总分			100 分

由上表可见，职称英语考试题型丰富，考查全面。其中分值较大的有词汇选项、阅读理解和完形填空。阅读判断、概括大意与完成句子、补全短文尽管分值不高，但比起传统题型来，需要一定时间的认知和适应。然而，只要是考试，就一定有命题的规律和应对的技巧。下面，我们就分题型来讲解各个部分的答题技巧。

词汇选项：活用词典，快准狠巧

词汇选项题一共 15 题，每题要求在四个词汇中选出一个最接近给出句子中的划横线单词的选项（近义词或同义词）；由于可以带词典进入考场，这部分题目是“送分题”，

所以，必须保证这部分拿到满分。做这一部分题最好做到“又准又快”，一般掌握在20分钟以内，在备考时如果花的时间太多，这就说明对这部分题目的做题思路 and 技巧还没有一个全面的了解和掌握。当然，做这15题，尽管“快而不准”是很笨的做法，如果稳拿15分，就是多花点时间也是很值得的。

职称英语考试的词汇选项题目基本是考查同义词或近义词替换，但是有时候划线词与正确选项并非同义词或者近义词，而是基本含义相同、同时能使句子通顺的单词替换，可参考历年真题。

同时，该部分在历年的考试中有重复考查的特征，建议考生要注意历年词汇选项真题的复习（详见本书附录部分——历年真题词汇选项考查）。

阅读判断：正误好辩，C项是宝

职称英语的阅读判断题目的关键是定位到原文的相关句子，从而才能对题干进行正确（Right）、错误（Wrong）、未提及（Not Mentioned）的判断。定位原句子主要是利用题干的关键词，如大写字母的单词、数字、时间、名词、动词、形容词和短语等。

此外，根据历年真题分析，阅读判断题目每年有1~2道题目为C（未提及），这一点要引起考生的注意。“正确”题干一般很好分辨，“错误”和“未提及”不太好分辨。“错误”的情况是题干的信息，原文有所提及，但两者内容是不吻合的。“未提及”则是题干的内容在原文根本没出现。拿不准时多选C。

同时，题目的顺序与原文的段落顺序一般保持一致，所以考生在定位原句时根据题目顺序依次往下找即可。

概括大意与完成句子：主题在首，定位为先

段落的大意可通过寻找主题句来获得。段落的主题句一般是段落的首句或尾句，如23题和24题；有时候是中间的句子（特别是有表示转折意思的连接词，如but、however、nevertheless、although、though等）；很少的情况下需要根据段落意思总结其段落大意，这时候要注意段落的高频词汇，高频词汇一般与段落的大意有关。

完成句子的关键则是首先在原文中定位到相关的原句，定位的方法也是利用题干的关键词，诸如大写字母的单词、数字、时间、名词、动词、形容词和短语等。此外，如果题干不容易定位，可以定位选项，看哪个选项对应的原句与题干一致。

阅读理解：既快又准地“找”，精心细致地“比”

阅读理解题目常考的题型主要有细节题、词汇题、主旨题、态度题、例证题等。

做阅读理解的关键在于“找”，即用关键词定位到原文；“比”，即将选项与定位的信息进行比较。

细节题是考试中最常见的题型，占据总分值的80%左右。解细节题的关键点在于上一段中讲到的用关键词回到原文定位，将定位好的细节信息与选项进行一一比对，重合度高的选项即为正确答案。正确选项往往会对原文信息进行改写，常见方式为同义替换（词汇层面）和句式改写（句法层面）；错误选项也有明显的特征：带有绝对词（always、absolutely、

only 等)、偷换概念、文不对题(选项内容正确,但与该题题干没有关系)等。

主旨题分为段落主旨和篇章主旨,段落的主旨一般是看段落的首尾句,而篇章的主旨则是看所有段落的首尾句,并结合篇章的题目。词汇题可以通过查词典的方式解决。

推断题是阅读理解中比较难的题目类型,需要在读懂文章的基础上进行推断,但因为时间所限,通读全篇的可能性不大,可以利用每段的首尾句来确定每段的大意,然后各段大意联系在一起就掌握全文大意,可以据此进行推断;或者也可以结合其他四道题目的理解进行推断。态度题则需要利用所使用词汇的褒贬色彩进行判断。例证题则需要关注例子前后的表示论点或观点的句子。

补全短文: 转承启合, 线索为先

这类题要求根据给定短文(原文)的意思,在6个选项句子(陈述句)中分别选出5个符合语法知识、逻辑结构和前后内容意思衔接的选项,补充到原文划线的填充处,使原文成为一篇意思完整、前后连贯的短文,所以这类题实际上是段落填充题。这类题本意是要考查较高的阅读能力、基础知识(语法、词汇等)和综合逻辑思维推理能力,其难度较大,是最令人头痛的题型,各选项环环相扣,选错了一个至少错两个甚至更多,所以填错一个选项,就意味着至少丢掉了4分。

不过,容易丢分的题,也是最容易得分的题,每选对一个,就意味着其他选项选择的成功率大大提高,何况只有1个干扰项,排除起来更容易。所以,如果做得好,它比“阅读理解”更容易拿分。做题时要注意:如果基础较好,可以快速浏览一遍原文,但不必精读;千万要注意选项的中心词和句子第一个词、填充处前后句子的大概意思和第一个和最后一个词;做每个填充处要认真阅读其前后段或句子,但不必阅读其他段落;要注意代词的线索功能,比如空格后有 it 或是 this,那么空格处一定有一个单数物体或事件,同时还要关注上下文语义的起承转合等逻辑关系词,比如转折代表要寻找反义词,原因要寻找合理的解释等等;确定了所有答案后,划去干扰项,把各选项对号入座,进行检査和印证。做题时千万要把已确定的选项划去,以便利用排除法解决问题。

完形填空: 上下求索, 瞻前顾后

完形填空是传统题型,一篇文章中15个空白对应着15个选项,要求填入实词(动词、名词和形容词等)的约占70%,其他为虚词(介词、副词等)的约占30%。要填的词几乎涉及各个词类,动词含有不同的时态、语态和语气。

做题步骤可以分为以下三步:(1)通读全文。首先要阅读整篇文章,理解全文内容。同时对全文的语言表达方式,比如文章用的时态、语态、文章的措辞与口气等方面得出大致印象;(2)逻辑判断。在阅读全篇的基础上,开始从头判断每个空所缺的词的言形式,如词类、时态、语态;并判断该词应具有符合文章上下文的词意;(3)理解选择。从给出的4个选项中,选出在语法与词意上均与原文相符合的一个。

做完形填空要特别注意固定搭配和习惯用语,比如看见空格前有 so,那么就应该下意识地到选项中找 that;看见空格前有 as well,就应该下意识地寻找 as。同时要注意寻找上

下文中的线索词，即“上下求索，瞻前顾后”。

以上的技巧和步骤，我们可以到真题中得到足够的训练和强化。换句话讲，鉴于职称英语命题重复率大的特征，只要将真题研究透彻了，将延伸的考点也掌握了，那么通过也就不是难题了。

编 者

2013 年 9 月



丛书序

写在前面的话：关于职称英语考试的那些事

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2013 年职称英语等级考试真题（理工类 B 级）



第 1 部分：词汇选项（第 1~15 题，每题 1 分，共 15 分）

下面每个句子中均有 1 个词或者短语有下划线，请为每处下划线部分确定 1 个意义最为接近的选项。

1. Come out, or I'll bust the door down.
A. shut B. set C. break D. beat
2. The police will need to keep a wary eye on this area of town.
A. naked B. cautious C. blind D. private
3. The rules are too rigid to allow for human error.
A. general B. complex C. direct D. inflexible
4. It seemed incredible that he had been there a week already.
A. right B. unbelievable C. obvious D. unclear
5. These animals migrate south annually in search of food.
A. explore B. travel C. inlaid D. prefer
6. Rumors began to circulate about his financial problems.
A. spread B. send C. hear D. confirm
7. She came across three children sleeping under a bridge.
A. passed by B. took a notice of C. woke up D. found by chance
8. I have little information as regards her fitness for the post.
A. at B. with C. about D. from
9. As a politician, he knows how to manipulate public opinion.
A. influence B. express C. divide D. voice
10. He was tempted by the high salary offered by the company.
A. taught B. attracted C. kept D. changed
11. He paused, waiting for her to digest the information.
A. understand B. withhold C. exchange D. contact
12. Make sure the table is securely anchored.
A. repaired B. cleared C. booked D. fixed

13. She gets aggressive when she is drunk.
 A. worried B. sleepy C. offensive D. anxious
14. There was something peculiar in the way he smiles.
 A. strange B. different C. wrong D. funny
15. The contract between the two companies will expire soon.
 A. shorten B. start C. resume D. end

☒ **第2部分：阅读判断** (第16~22题, 每题1分, 共7分)

下面的短文后列出了7个句子, 请根据短文的内容对每个句子做出判断; 如果该句提供的是正确信息, 请选择A; 如果该句提供的是错误信息, 请选择B; 如果该句的信息文中没有提及, 请选择C。

Wide World of Robots

Engineers who build and program robots have fascinating jobs. These researchers tinker (修补) with machines in the lab and write computer software to control these devices. "They're the best toys out there," says Howle Choset at Carnegie Mellon University in Pittsburgh. Choset is a roboticist, a person who designs, builds or programs robots.

When Choset was a kid, he was interested in anything that moved—cars, trains, animals. He put motors on Tinkertoy cars to make them move. Later, in high school, he built mobile robots similar to small cars.

Hoping to continue working on robots, he studied computer science in college. But when he got to graduate school at the California Institute of Technology in Pasadena, Choset's labmates were working on something even cooler than remotely controlled cars: robotic snakes. Some robots can move only forward, backward, left and right. But snakes can twist (扭曲) in many directions and travel over a lot of different types of terrain (地形). "Snakes are far more interesting than the cars," Choset concluded.

After he started working at Carnegie Mellon, Choset and his colleagues there began developing their own snake robots. Choset's team programmed robots to perform the same movements as real snakes, such as sliding and inching forward. The robots also moved in ways that snakes usually don't, such as rolling. Choset's snake robots could crawl (爬行) through the grass, swim in a pond and even climb a flagpole.

But Choset wondered if his snakes might be useful for medicine as well. For some heart surgeries, the doctor has to open a patient's chest, cutting through the breastbone. Recovering from these surgeries can be very painful. What if the doctor could perform the operation by instead making a small hole in the body and sending in a thin robotic snake?

Choset teamed up with Marco Zenati, a heart surgeon now at Harvard Medical School, to investigate the idea. Zenati practiced using the robot on a plastic model of the chest and they tested the robot in pigs.

A company called Medrobotics in Boston is now adapting the technology to surgeries on people.

Even after 15 years of working with his team's creations, "I still don't get bored of watching the motion of my robots," Choset says.

16. Choset began to build robots in high school.

A. Right B. Wrong C. Not mentioned

17. Snake robots could move in only four directions.

A. Right B. Wrong C. Not mentioned

18. Choset didn't begin developing his own snake robots until he started working at Carnegie Mellon.

A. Right B. Wrong C. Not mentioned

19. Choset's snake robots could make more movements than the ones others developed.

A. Right B. Wrong C. Not mentioned

20. The application of a thin robotic snake makes heart surgeries less time-consuming.

A. Right B. Wrong C. Not mentioned

21. Zenati tested the robot on people after using it in pigs.

A. Right B. Wrong C. Not mentioned

22. The robotic technology for surgeries on people has brought a handsome Medrobotics.

A. Right B. Wrong C. Not mentioned



第 3 部分：概括大意与完成句子 (第 23 ~ 30 题, 每题 1 分, 共 8 分)

下面的短文后有 2 项测试任务: (1) 第 23 ~ 26 题要求从所给的 6 个选项中为指定段落每段选择 1 个小标题; (2) 第 27 ~ 30 题要求从所给的 6 个选项中为每个句子确定一个最佳选项。

Black Holes

1. Black holes can be best described as a sort of vacuum, sucking up everything in space. Scientists have discovered that black holes come from an explosion of huge stars. Stars that are near death can no longer burn due to loss of fuel, and because its temperature can no longer control the gravitational (重力的) force, hydrogen ends up putting pressure onto the star's surface until it suddenly explodes then collapses.

2. Black holes come from stars that are made of hydrogen, other gases and a few metals. When these explode it can turn into a stellar-mass (恒星质量) black hole, which can only occur if the star is large enough (should be bigger than the sun) for the explosion to break it into pieces, and the gravity starts to compact every piece into the tiniest particle. Try to see and compare: if a star that's ten times the size of the sun end up being a black hole that's no longer than 70 kilometers, then the Earth would become black hole that's only a fraction of

an inch!

3. Objects that get sucked in a black hole will always remain there, never to break free. But remember that black holes can only gobble up (吞噬) objects within a specific distance to it. It's possible for a large star near the sun to become a black hole, but the sun will continue to stay in place. Orbits (轨道) do not change because the newly formed black hole contains exactly the same amount of mass as when it was a star, only this its mass is totally contracted that it can end up as no bigger than a state.
4. So far, astronomers have figured out that black holes exist because of Albert Einstein's theory of relativity. In the end, through numerous studies, they have discovered that black holes truly exist. Since black holes trap light and do not give off light, it is not possible to detect black holes via a telescope. But astronomers continue to explore galaxies (银河系), space and the solar system to understand how black holes. It is possible that black holes can exist for millions of years, and later contribute further process in galaxies, which can eventually lead to creation of new entities. Scientists also credit black holes as helpful in learning how galaxies began to form.

23. Paragraph 1 _____
24. Paragraph 2 _____
25. Paragraph 3 _____
26. Paragraph 4 _____

- A. What happens to the objects around a black hole?
- B. Is there proof that black holes really exist?
- C. How were black holes named?
- D. What are different types of black holes?
- E. What are black holes made of?
- F. How are black holes formed?

27. Black holes are formed after _____.
28. When a large star explodes, the gravity compacts ever piece into _____.
29. A newly formed black hole and the star it comes from are of _____.
30. Albert Einstein's theory of relativity helps to prove _____.

- A. the existence of black holes
- B. the creation of new entities
- C. the same amount of mass
- D. an explosion of huge stars
- E. a fraction of an inch
- F. the tiniest particle



第 4 部分：阅读理解 (第 31~45 题，每题 3 分，共 45 分)

下面有 3 篇短文，每篇短文后有 5 道题。请根据短文内容，为每题确定 1 个最佳选项。



Energy and Public Lands

The United States boasts substantial energy resources. Federal lands provide a good deal of US energy production, the US Department of the Interior manages federal energy leasing (租赁) both on land and on the offshore Outer Continental Shelf Production from these sources amounts to nearly 30 percent of total annual US energy production.

In 2000, 32 percent of US oil, 35 percent of natural gas, and 37 percent of coal were produced from federal lands, representing 20,000 producing oil and gas leases and 135 producing coal leases. Federal lands are also estimated to contain approximately 68 percent of all undiscovered US oil reserves and 74 percent of undiscovered natural gas.

Revenues from federal oil, gas, and coal leasing provide significant returns to US taxpayers as well as State Government. In 1999, for example, \$553 million in oil and gas revenues were paid to the US Treasury, and non-India coal leases accounted for over \$304 million in revenues, of which 50 percent were paid to State governments. Public lands also play a critical role in energy delivery. Each year, federal land managers authorize rights of way for transmission lines, rail systems, pipelines, and other facilities related to energy production and use.

Alternative energy production from federal lands falls behind conventional energy production, though the amount is still significant. For example, federal geothermal (地热) resources produce about 7.5 billion kilowatt-hours (千瓦时) of electricity per year, 47 percent of all electricity generated from US geothermal energy. There are 2,960 wind turbines on public lands in California alone, producing electricity for about 300,000 people. Federal hydropower facilities produce about 17 percent of all hydropower produced in the United States.

Because of the growing US thirst for energy and increasing public unease with influence on foreign off sources, pressure on public lands to meet US energy demand is becoming more intense. Public lands are available for energy development only after they have been evaluated through the land use planning process. If development of energy resources conflicts with management or use of other resources, development restrictions or impact moderation measures may be enforced, or mineral be banned altogether.

31. What is the main idea of this passage?

- A. Public lands are one of the main sources of revenues.
- B. Public lands play an important role in energy production.

- C. Public lands should be developed to ease energy shortage.
 D. Public lands store huge energy resources for further development.
32. Which of the following statements is true of public lands in the U. S. ?
 A. The majority of undiscovered natural gas is stored there.
 B. Half of US energy is produced there.
 C. Most of coal was produced from there in 2000.
 D. Most energy resources are reserved there.
33. Geothermal resources, wind turbines, and hydropower facilities in Paragraph 4 cited as examples to illustrate that _____.
 A. the amount of alternative energy production from public lands is huge
 B. alternative energy production is no less than conventional energy production
 C. they are the most typical conventional energy resources from public lands
 D. geothermal resources are more important than the other two
34. There is a mounting pressure on public lands to satisfy US energy demands _____.
 A. the U. S. is demanding more and more energy
 B. many Americans are unhappy with energy development in foreign countries
 C. quite a few public lands are banned for energy development
 D. many Americans think public lands are being abused
35. Public lands can be used for energy development when _____.
 A. energy development restrictions are effective
 B. federal land managers grant permissions
 C. they go through the land use planning process
 D. there is enough federal budget



Putting Plants to Work

Using the power of the sun is nothing new. People have had solar-powered calculators and buildings with solar panels (太阳能电池板) for decades. But plants are the real experts. They've been using sunlight as an energy source for billions of years.

Cells in the green leaves of plants work like tiny factories to convert sunlight, carbon dioxide (二氧化碳), and water into sugars and starches (淀粉), stored energy that the plants can use. This conversion process is called photosynthesis (光合作用). Unfortunately, unless you're a plant, it's difficult and expensive to convert sunlight into storable energy. That's why scientists are taking a closer look at exactly how plants do it.

Some scientists are trying to get plants, or biological cells that act like plants, to work as very small photosynthesis power stations. For example, Maria Ghirardi of the National Renewable Energy Laboratory in Golden, Colo., is working with green algae (水藻). She's

trying to trick them into producing hydrogen instead of sugars when they perform photosynthesis. Once the researchers can get the algae working efficiently, the hydrogen that they produce could be used to power fuel cells in cars or to generate electricity.

The algae are grown in narrow-necked glass bottles to produce hydrogen in the lab. During photosynthesis, plants normally make sugars or starches. "But under certain conditions, a lot of algae are able to use the sunlight energy not to store starch, but to make hydrogen." Ghirardi says. For example, algae will produce hydrogen in an airfree environment. It's the oxygen in the air that prevents algae from making hydrogen most of the time.

Working in an airfree environment, however, is difficult. It's not a practical way to produce cheap energy. But Ghirardi and her colleagues have discovered that by removing a chemical called sulfate (硫酸盐) from the environment that the algae grow in, they will make hydrogen instead of sugars, even when air is present.

Unfortunately, removing the sulfate also makes the algae's cells work very slowly, and not much hydrogen is produced. Still, the researchers see this as a first step in their goal to produce hydrogen efficiently from algae. With more work, they may be able to speed the cells' activity and produce larger quantities of hydrogen.

The researchers hope that algae will one day be an easy-to-use fuel source. The organisms are cheap to get and to feed, Ghirardi says, and they can grow almost anywhere: "You can grow them in a reactor, in a pond. You can grow them in the ocean. There's a lot of flexibility in how you can use these organisms."

36. How do plants relate to solar energy?
 - A. They are the real experts in producing it.
 - B. They have been a source of it.
 - C. They have been used to produce it.
 - D. They have been using it for billions of years.
37. Scientists study how photosynthesis works because they want to _____.
 - A. improve the efficiency of it
 - B. turn plant sugars to a new form of energy
 - C. make green plants a new source of energy
 - D. get more sugars and starches from plants
38. Algae are able to use solar energy to produce hydrogen when _____.
 - A. they are grown in narrow-necked bottles
 - B. there is enough oxygen in the air
 - C. enough starches is stored
 - D. there is no oxygen in the air
39. Researchers find it difficult to make algae produce hydrogen efficiently because _____.
 - A. removing the sulfate slows down hydrogen production