中国科学院研究生考试中心
中国科学技术大学研究生院 审订

博士研究生英语入学考试纲要

第4版

Guide to English Entrance Examination for PHD Candidates (Fourth Edition)

陈纪梁 编

中国科学技术大学出版社

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前　言

博士研究生教育是我国高等教育的最高层次。面对竞争日益激烈的国际社会和飞速发展的新技术革命的挑战，全面提高高层次人才的外语素质，已成为我国高等教育改革和发展的重要任务之一。根据《中华人民共和国学位条例暂行实施办法》的规定，外国语是获得博士学位的考试科目之一，外国语水平是博士学位授予的重要依据条件。

本书编写的目的是为了满足有志报考中国科学技术大学和中国科学院部分院所攻读博士学位的广大考生的要求，以使他们对博士研究生英语入学考试的内容和形式有个全面的了解。本书主要包括四个部分：

一、博士研究生英语入学考试纲要。本纲要是在参照了国家教委1992年颁布的《非英语专业研究生英语教学大纲》和《非英语专业研究生英语学位课程考试大纲》有关要求的基础上制定的，同时融入了作者多年从事博士研究生英语教学和命题的经验。本纲要在第4版中对博士研究生英语入学考试的内容、时间和计分作了一定程度调整。

二、博士研究生英语入学考试样题4套及参考答案。

三、博士研究生英语入学考试词汇表(供参考)。词汇表总共有6 654个单词，《初中新标准英语词汇》(最新版)所列的1 800个单词未列入表中。词条的选择原则是：4级词汇和5～6级词汇依据《大学英语教学大纲词汇表》(上海外语教育出版社，2000)；新增的6级后词汇及一些复合词和派生词依据《大学英语教学大纲词汇表》、《全国硕士研究生入学考试英语考试大纲词汇表》、《硕士/博士学位研究生英语教学大纲词汇表》和 *Collins Cobuild Learner's Dictionary*。词义的选择主要依据 *Oxford Advanced Learner's English—Chinese Dictionary* 和 *Longman Dictionary of American English*。

四、英语常用前缀、后缀。

本书是在中国科学技术大学研究生院的积极鼓励下编写的。值此书出版之际，作者对中国科学技术大学研究生院招生办公室多年来的关心和支持表示由衷的感谢。本书在编写过程中，陶伟、王蔷、赵华树、陈珺、王祖鑫、陶红等同志做了大量的打印和校对工作，在此谨向他们表示诚挚的谢意。由于作者水平有限，错误和不妥之处在所难免，敬请同行专家和广大读者给予批评和指正。

作　者

2015年8月于中国科学技术大学

目　次

博士研究生英语入学考试纲要

《博士研究生英语入学考试纲要》是根据国家教育部1998年博士研究生入学考试的有关文件精神，并参照了国家教委1992年颁布的《非英语专业研究生英语教学大纲》而制定的。本纲要规定了中国科学技术大学以及中国科学院部分院所博士研究生英语入学考试的内容、时间和计分。考试目的在于考核已修完硕士生英语学位课程的考生英语水平是否具备攻读博士学位资格。该考试着重测试考生掌握和实际运用英语知识的能力。

考 试 内 容

笔试包括七个部分：阅读理解、词汇、综合填空、辨错、构词、英译汉和写作。试卷由试卷一（Paper One）和试卷二（Paper Two）两部分组成。试卷一为客观题部分，占总分的60%，包括阅读理解、词汇、综合填空和辨错四个部分；试卷二为主观题部分，占总分的40%，包括构词、英译汉和写作三个部分。另外，听力安排在笔试之后的面试时进行。

第一部分 阅读理解

阅读理解主要测试考生通过阅读获取信息的能力，既要求准确，也要求有一定的速度。该部分共20题，考试时间为60分钟。要求考生阅读5篇350～450字之间的文章，每篇文章后有4个问题。考生应根据文章内容从每题所给的四个选项中选出一个最佳答案。

阅读理解主要测试以下阅读能力：

1. 掌握所读材料的中心思想、主要内容和细节；
2. 对所读材料的内容进行一定的判断和推理；
3. 理解某些词或句子的意义及上下文之间的逻辑关系；
4. 领会作者的观点和判断作者的态度。

阅读部分选材的原则是：

1. 题材广泛，包括科技、社会、文化、史地、日常生活、人物介绍等；

2. 体裁多样，包括叙事、议论、描述、说明、应用文等。

第二部分　词汇

词汇部分主要考查考生词汇和短语知识及其运用能力。该部分共 20 题，考试时间为 20 分钟。词汇测试有两种形式：第一种形式要求考生对每题句中划有横线的词或短语进行替换选择，即从所给的 4 个选项中选出该划线词或短语的最佳词义或释义；第二种形式是每题句中留有一处空白，要求考生从所给的 4 个选项中选择最佳词义或短语完成句子。词汇测试范围包括本纲要词汇表中的全部内容。

第三部分　综合填空

综合填空不仅考查考生对不同语境中规范的语言要素（包括词汇、语法结构和表达方式）的掌握程度，而且还考查考生对语段特征（如连贯性和一致性等）的辨识能力。该部分共 10 题，考试时间为 15 分钟。在一篇 250～300 词的文章中留出 10 个空，要求考生从每题给出的 4 个选项中选出最佳答案，使补全后的文章意思通顺、前后连贯、结构完整。

第四部分　辨错

辨错主要测试考生语法知识和词汇知识的认知能力以及英语的实际运用能力。该部分共 10 题，考试时间为 15 分钟。每题为一个句子，每句中有 4 个下面划有横线的词或短语，其中有一处语言表达是错误的，要求考生将错误的选出。

第五部分　构词

构词是考查考生实际运用词汇知识的能力。该部分共 5 题，考试时间为 5 分钟。每题为一个句子，句中留出一个空白，句末给出一个词，要求考生运用构词法或语法、词汇知识根据句义构造出一个正确的词。

第六部分　英译汉

该部分要求考生将一篇 200～250 字的英文或一篇英文中划线的句子译成汉语。考试时间为 20 分钟。要求译文忠实原文，表达正确。

第七部分　写作

写作部分主要考查考生用英语书面表达思想的能力。该部分共 1 题，考试时间为 45 分钟。要求考生写出一篇约 300 字的短文。写作要求切题，能正确表达思想，意义连贯，无较为严重的语言错误。写作文体以议论文和说明文为主。

考试时间及计分

试卷七个部分的题数、计分和考试时间列表如下：

卷别	序号	题号	各部分名称	题数	计分	考试时间
试卷一	Ⅰ	1～20	阅读理解	20	30 分	60 分钟
	Ⅱ	21～40	词汇	20	10 分	20 分钟
	Ⅲ	41～50	综合填空	10	10 分	15 分钟
	Ⅳ	51～60	辨错	10	10 分	15 分钟
试卷二	Ⅴ	61～65	构词	5	5 分	5 分钟
	Ⅵ		英译汉	1	10 分	20 分钟
	Ⅶ		写作	1	25 分	45 分钟
合计				72	100 分	180 分钟

博士研究生英语入学考试样题(一)

PAPER ONE

SECTION Ⅰ READING COMPREHENSION (30 points)

Directions: There are 5 passages in this section. Each passage is followed by some questions or unfinished statements. For each of them there are four choices marked A, B, C and D. You should decide on the best choice and then blacken the corresponding letter on the Answer Sheet.

Passage One

Questions 1 to 4 are based on the following passage

When the television is good, nothing—not the theatre, not the magazines, or newspapers—nothing is better. But when television is bad, nothing is worse. I invite you to sit down in front of your television set when your station goes on the air and stay there without a book, magazine, newspaper, or anything else to distract you and keep your eyes glued to that set until the station signs off. I can assure you that you will observe a vast wasteland. You will see a procession of game shows, violence, audience-participation shows, formula comedies about totally unbelievable families, blood and thunder, more violence, murder, Western badmen, Western goodmen, gangsters, still more violence, and cartoons. And, endlessly, commercials that scream and cajole and offend. And most of all, boredom. True, you will see a few things you will enjoy. But they will be very, very few. And if you think I exaggerate, try it.

Is there no room on television to teach, to inform, to uplift, to stretch, to enlarge the capacities of our children? Is there no room for programs to deepen the children's under-

standing of children in other lands? Is there no room for a children's news show explaining something about the world for them at their level of understanding? Is there no room for reading the great literature of the past, teaching them the great traditions of freedom? There are some fine children's shows, but they are drowned out in the massive doses of cartoons, violence, and more violence. Must these be your trademarks? Search your conscience and see whether you cannot offer more to your young beneficiaries whose future you guard so many hours each and every day.

There are many people in this great country, and you must serve all of us. You will get no argument from me if you say that, given a choice between a Western and a symphony, more people will watch the Western. I like Westerns and private eyes too—but a steady diet for the whole country is obviously not in the public interest. We all know that people would often prefer to be entertained than stimulated or informed. But your obligations are not satisfied if you look only to popularity as a test of what to broadcast. You are not only in show business; you are free to communicate ideas as well as to give relaxation. You must provide a wider range of choices, more diversity, more alternatives. It is not enough to cater to the nation's whims—you must also serve the nation's needs. The people own the air. They own it as much in prime evening time as they do at six o'clock in the morning. For every hour that the people give you—you owe them something, I intend to see that your debt is paid with service.

1. The author is primarily concerned to tell broadcasters that _____.
   A. listeners, not broadcasters, should make decisions about which programs are aired
   B. all children's shows are worthless
   C. mystery programs should be banned
   D. they had better mend their ways

2. Concerning programs for children, it may be inferred that the speaker believes that such programs should _____.
   A. include no cartoons at all
   B. include ones which provide culture
   C. be presented only during the morning hours
   D. not deal with the Old West

3. The statement that "the people own the air" implies that _____.

A. citizens have the right to insist on worthwhile television programs
B. television should be socialized
C. since air is worthless, the people own nothing
D. broadcasters have no right to commercialize on television

4. It can be inferred from the passage in regard to television programming that the speaker believes _____.
A. broadcasters are trying to do the right thing but are failing
B. foreign countries are going to pattern their programs after ours
C. listeners do not necessarily know what is good for them
D. there is a great deal that is worthwhile in present programs

Passage Two

Questions 5 to 8 are based on the following passage

Coincident with concerns about the accelerating loss of species and habitats has been a growing appreciation of the importance of biological diversity, the number of species in a particular ecosystem, to the health of the Earth and human being. Much has been written about the diversity of terrestrial organisms, particularly the exceptionally rich life associated with tropical rain-forest habitats. Relatively little has been said, however, about diversity of life in the sea even though coral reef systems are comparable to rain forests in terms of richness of life.

An alien exploring Earth would probably give priority to the planet's dominant, most distinctive feature—the ocean. Humans have a bias toward land that sometimes gets in the way of truly examining global issues. Seen from far away, it is easy to realize that land-masses occupy one-third of the Earth's surface. Given that two-thirds of the Earth's surface is water and that marine life lives at all levels of the ocean, the total three-dimensional living space of the ocean is perhaps 100 times greater than that of land and contains more than 90 percent of all life on Earth even though the ocean has fewer distinct species.

The fact that half of the known species are thought to inhabit the world's rain forests does not seem surprising, considering the huge numbers of insects that comprise the bulk of the species. One scientist found many different species of ants in just one tree from a rain forest. While every species is different from every other species, their genetic makeup constrains them to be insects and to share similar characteristics with 750,000 species of

insects. If basic, broad categories such as phyla and classes are given more emphasis than differentiating between species, then the greatest diversity of life is unquestionably the sea. Nearly every major type of plant and animal has some representation there.

To appreciate fully the diversity and abundance of life in the sea, it helps to think small. Every spoonful of ocean water contains life on the order of 100 to 100,000 bacterial cells plus assorted microscopic plants and animals, including larvae of organisms ranging from sponges and corals to starfish and clams and much more.

5. What is the main point of the passage?
   A. Humans are destroying thousands of species.
   B. There are thousands of insect species.
   C. The sea is even richer in life than the rain forests.
   D. Coral reefs are similar to rain forests.

6. Why does the author compare rain forests and coral reefs?
   A. They are approximately of the same size.
   B. They share many similar species.
   C. Most of their inhabitants require water.
   D. Both have many different forms of life.

7. The author argues that there is more diversity of life in the sea than in the rain forests because _____.
   A. there are too many insects to make meaningful distinctions
   B. more phyla and classes of life are represented in the sea
   C. many insect species are too small to divide into categories
   D. marine life-forms reproduce at a faster rate

8. Which of the following conclusions is supported by the passage?
   A. Ocean life is highly adaptive.
   B. More attention needs to be paid to preserving ocean species and habitats.
   C. Ocean life is primarily composed of plants.
   D. The sea is highly resistant to the damage done by pollutants.

Passage Three

Questions 9 to 12 are based on the following passage

Not long ago, it seemed that there would come a day quite soon when science would reveal that every food would be toxic. Or, at any rate, that is how things appeared to many ordinary people.

The supposition was based on half-digested and partially understood scientific reports. Only the other day I found myself sitting at dinner between women who, to hear them talk, seemed to imagine that every article in the supermarket was deadly. But I am pleased to report that my fellow citizens are beginning to emerge from this feeling of hopelessness.

There are now some daring souls who are prepared once again to eat the odd spoonful of strawberry jam and take the consequences. They have noticed that the strawberry death rate is somewhat lower than they had previously been led to expect.

The loss of nerve, from which the ordinary person seems to be recovering, was caused by several factors. First, he was told that it would be a good thing if he knew the contents of all the foods he bought. But when he saw the lists of ingredients printed on the sides of packers and bottles, he trembled and feared for his safety.

The second thing which once frightened some people but which, I do believe, is now frightening them less, was the remarkable scientific advance which has been revolutionizing analytical chemistry. Scientists can now isolate the tiniest amounts of harmful substances in foods which, hitherto, have always been considered safe, or in some cases beneficial.

Now there are sophisticated tests which can detect poisons in the tiniest amount—not even enough to kill a mouse. Over the years the general public has been worried by half-correct newspaper reports of the increasing number of foods which detailed investigation has proved contain harmful substances in some degree.

Gradually, I do believe, a still small voice has come to be heard—the voice of common sense. Tests on mice had shown that saccharin tended—even to a very small degree—to produce cancer. Instead of being greatly frightened, the general public paused for reflection. If even a huge intake of saccharin could only be expected to give you cancer 70 or 80 years hence, did it really matter? I salute the dawn of common sense.

9. It now appears that _____.

A. for a long time we have all been eating the wrong things

B. reports about certain harmful substances in food have been greatly exaggerated

C. people have lost their nerve when it comes to exercising their own judgment
D. only a few people are eating food suitable for them

10. The strong fear of food from which the ordinary person suffered was caused by _____.
A. an official insistence that people should be careful as to what they were consuming
B. an awareness that all foods contain substantial amounts of harmful substances
C. an inability of scientists to identify which substances were harmful and which were not
D. ignorance of the general public as to the real nature of toxic ingredients

11. It is a scientific fact that _____.
A. safe foods can contain minute amounts of toxic substances
B. foods hitherto considered safe are in fact toxic
C. even the smallest amount of poison can kill an animal
D. sophisticated tests prove that we should no longer eat food containing toxic substances

12. According to the author, we are now beginning to realize that _____.
A. harmless substances, if taken in relatively large quantities, can be very dangerous
B. substances like saccharin should be excluded from our dinner table.
C. the quantities of poisonous substances found in food do not seriously endanger our health
D. even schoolchildren can be the innocent victims of undetected poisoning

Passage Four

Questions 13 to 16 are based on the following passage

Pheromones are substances that serve as chemical signals between members of the same species. They are secreted to the outside of the body and cause other individuals of the species to have specific reactions. Pheromones, which are sometimes called "social hormones", affect a group of individuals somewhat like hormones do an individual animal. Pheromones are the predominant medium of communication among insects (but rarely the sole method).

Some species have simple pheromone systems and produce only a few pheromones, but others produce many with various functions. Pheromone systems are the most complex in some of the so-called social insects, insects that live in organized groups.

Chemical communication differs from that by sight or sound in several ways. Transmission is relatively slow (the chemical signals are usually airborne), but the signal can be persistent, depending upon the volatility of the chemical, and is sometimes effective over a long range. Localization of the signal is generally poorer than localization of a sound or visual stimulus and is usually effected by the animal's moving upwind in response to the stimulus. The ability to modulate a chemical signal is limited, compared with communication by visual or acoustic means, but some pheromones may convey different meanings and consequently result in different behavioral or physiological responses, depending on their concentration or when presented in combination. The modulation of chemical signals occurs via the elaboration of the number of exocrine glands that produce pheromones. Some species, such as ants, seem to be very articulate creatures, but their medium of communication is difficult for humans to study and appreciate because of our own olfactory insensitivity and the technological difficulties in detecting and analyzing these pheromones.

Pheromones play numerous roles in the activities of insects. They may act as alarm substances, play a role in individual and group recognition, serve as attractants between sexes, mediate the formation of aggregations, identify foraging traits, and be involved in caste determination. For example, pheromones involved in caste determination include the "queen substance" produced by queen honey bees. Aphids, which are particularly vulnerable to predators because of their gregarious habits and sedentary nature, secrete an alarm pheromone when attacked that causes nearby aphids to respond by moving away.

13. What does the passage mainly discuss?
    A. How insects use pheromones to communicate.
    B. How pheromones are produced by insects.
    C. Why analyzing insect pheromones is difficult.
    D. The different uses of pheromones among various insect species.

14. The passage suggests that the speed at which communication through pheromones occurs is dependent on how quickly they _____.
    A. lose their effectiveness
    B. evaporate in the air

C. travel through the air
D. are produced by the body

15. According to the passage, the meaning of a message communicated through a pheromone may vary when the _____.
A. chemical structure of the pheromone is changed
B. pheromone is excreted while other pheromones are also excreted
C. exocrine glands do not produce the pheromone
D. pheromone is released near certain specific organisms

16. Which of the following has made the study of pheromones difficult, according to the passage?
A. Pheromones cannot be easily reproduced in chemical laboratories.
B. Pheromones are highly volatile.
C. Pheromone signals are constantly changing.
D. Existing technology cannot fully explore the properties of pheromones.

Passage Five

Questions 17 to 20 are based on the following passage

Extract 1

In the late 1960s an enormous number of arrows, bollards, lines, stripes, lettering and islands appeared all over the city contributing to the erosion of its visual qualities. Of course, it is argued that the bollards and islands are for the safety of pedestrians, but there are less hideous ways of doing the same thing. In Holland, for example, different textures of road surface and differing patterns are used to distinguish between the paths and the carriage way. Brick paviors are used on the Continent, with admirable results. The visual disasters at so many road junctions in the city are causes of great concern.

Extract 2

As the townsman of the twentieth century is on the surface a new being, so is his

town. The face of his streets has suffered a marked change. Uncomely industrial towns have been made bright and clean with a considerable substitution of glass for brick; and gracious old towns have had their lines disfigured by the intrusion of the garish standardized shops of the multiple stores. Buildings five sizes larger than any that were seen a hundred years ago have appeared in all towns. Everything is larger—shops, offices, vehicles, pavements, street lamps, exhibitions, theatres, libraries, town halls. Only the townsman himself is thinner.

Extract 3

Nowadays the walls have lost their warlike associations, but have retained their beauty. One of the loveliest sights for a stranger entering the City is the picture of the walls outside the station. At all times this is beautiful—on a sunny day when the blue sky, grey walls and green moat are washed in clear colors; in spring when thousands of daffodils nod their heads on the moat side; in early summer when the wind blows through the long grass.

It is pleasant, especially on a fine, clear day, to spend a morning or an afternoon walking round the walls. From the broad, flagged path, which is reached by flights of easy steps, one has a good bird's-eye view of the City. Looking outwards it is easy to imagine a medieval archer shooting arrows through the loopholes.

17. The writer of extract 1 is urging _____.
    A. more consideration for people on foot
    B. the use of better building materials
    C. alternative designs
    D. a clearer view for drivers at certain spots in the city

18. In extract 2, what are some beautiful cities described as acquiring?
    A. Too many shops.
    B. Efficient shops.
    C. Boring buildings.
    D. Vulgar buildings.

19. Compared with that in extract 1, the city described in extract 3 appears to _____.
    A. inspire more love
    B. be more pleasing