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نام:
نام خانوادگی:
محل امضاء:

صباح جمعه
۹۳/۱۲/۱۵
دفترچه شماره ۲ از ۲

اگر دانشگاه اصلاح شود، مملکت اصلاح می‌شود.
امام خمینی (ره)



جمهوری اسلامی ایران
وزارت علوم، تحقیقات و فناوری
سازمان سنجش آموزش کشور

**آزمون ورودی
دوره‌های دکتری (نیمه‌متمرکز) داخل
سال ۱۳۹۴**

کلیه رشته‌های امتحانی گروه آزمایشی فنی - مهندسی

تعداد سوال: ۶۰
مدت پاسخگویی: ۹۰ دقیقه

عنوان مواد امتحانی، تعداد و شماره سوال‌ها

ردیف	مواد امتحانی	تعداد سوال	از شماره	تا شماره	ضریب
۱	استعداد تحصیلی	۳۰	۱۰۱	۱۳۰	۱
۲	زبان انگلیسی - عمومی	۳۰	۱۳۱	۱۶۰	۱

این آزمون نمره منفی دارد.
استفاده از ماشین حساب مجاز نمی‌باشد.

اسفندماه - سال ۱۳۹۳

حق چاپ، تکثیر و انتشار سوالات به هر روش (الکترونیکی و ...) پس از برگزاری آزمون، برای تمامی اشخاص حقیقی و حقوقی تنها با مجوز این سازمان مجاز می‌باشد و با متخلفین برابر مقررات رفتار می‌شود.

پی اچ دی تست؛ نخستین وب سایت تخصصی آزمون دکتری

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بخش پنجم

راهنمایی:

این بخش، مربوط به سوالات آزمون زبان انگلیسی - عمومی است.

Part A. Grammar

Directions: Select the answer choice (1), (2), (3), or (4) that could best complete the blank in the following questions. Then mark your answer on your answer sheet.

131- Women are thought to no official role in Roman army activities.

- 1) having had
- 2) have
- 3) have had
- 4) be having

132- We have to make sure that we think is right.

- 1) a way that will machines behave
- 2) that machines will behave in a way
- 3) for the machines a way to behave
- 4) to behave in a way that machines are

133- Defaunation has caused numerous geographic range constrictions in marine animal species, them locally extinct in many habitats.

- 1) and has driven
- 2) that are driven by
- 3) which it drives
- 4) driving

134- Vaccinated mice were then challenged with LCMV Clone-13 (Cl-13), which causes a systemic infection

- 1) that lasts for 60 to 90 days
- 2) of 60 to 90 days to last
- 3) lasts between 60 and 90 days
- 4) between 60 to 90 days of lasting

135- For the first time, it is possible to distinguish between brain activity associated with pain from a physical cause, such as an injury, and with pain linked to your state of mind.

- 1) the association
- 2) is associated
- 3) that associated
- 4) that of association is



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136- The visual treatment was as much influenced by stylistic ideas of what was visually appropriate for a modern architecture technical factors connected with the structure.

- 1) as it was by 2) to be in 3) being 4) was

137- that can take the place of monatomic anions.

- 1) That many polyatomic anions
2) Polyatomic anions are so many
3) As many as polyatomic anions
4) There are many polyatomic anions

138- in our first meeting that I never ever again went for a second visit.

- 1) I found him contentious
2) So contentious I found him
3) Contentious as I found him
4) More contentious I found him

Part B. Vocabulary

Directions: Select the answer choice (1), (2), (3), or (4) that could best complete the blank in the following questions. Then mark your answer on your answer sheet.

139- Since there is a huge between the results of the first and second experiment, the laboratory team will conduct a third test.

- 1) moderation 2) controversy
3) discrepancy 4) corruption

140- The atmosphere in the room was negatively affected by an unexplained outburst of anger by one of those present, and presumably directed against the vice president of the company.

- 1) cordial 2) susceptible
3) quaint 4) tedious

141- If you damage your refrigerator while trying to fix it, you could possibly your warranty and find yourself responsible for all the repair costs.

- 1) elude 2) nullify
3) manipulate 4) postpone

142- A true scientist is not expected to let his compromise his scientific work.

- 1) recognitions 2) argumentations
3) initiations 4) preconceptions

143- The attorney lost his license to practice when it was discovered he often took steps to evidence to keep his clients out of jail.

- 1) fabricate 2) substantiate
3) purify 4) intimidate



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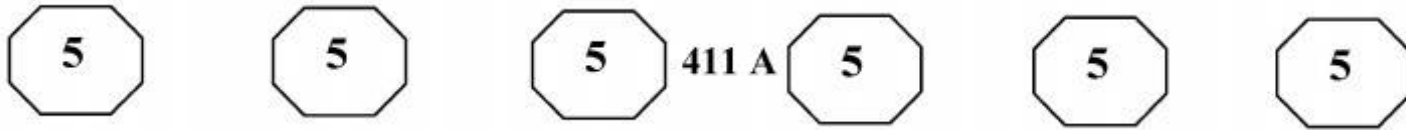
- 144- If there was an award for being, my aunt would win because she is always complaining about something.
1) benevolent
2) reticent
3) fanatical
4) querulous
- 145- Because education is not in all countries, there are many children who do not attend school.
1) autonomous
2) flexible
3) compulsory
4) authentic
- 146- Given such animals' rapid in numbers, she did not actually think she would ever get a chance to see one in the wild.
1) execution
2) domination
3) depletion
4) alienation
- 147- He her blank stare as boredom and stopped telling her about his new job.
1) construed
2) detested
3) scrutinized
4) regretted
- 148- The value of a college degree is worth more than the financial cost of obtaining a higher education.
1) arbitrary
2) intrinsic
3) complementary
4) innovative
- 149- Interrogators were reportedly frustrated by their inability to useful information from him.
1) elicit
2) augment
3) extend
4) speculate
- 150- He has got such a memory that even now, at the age of seventy, he can recall the formulae he had studied in his school days.
1) vigilant
2) deft
3) prodigious
4) feasible

Part C. Reading Comprehension

Directions: Read the following two passages and select the best choice (1), (2), (3), or (4) that best answers each question. Then mark your answer on your answer sheet.

Passage 1:

These days the popular mantras for stimulating creativity frequently extol the virtues of thinking outside the box: "There are no wrong answers." "Consider all options." "Break the boundaries that prevent you from innovating." But not all boundaries should be broken. Some are real and need to be respected. Sometimes it is best to know how to think creatively inside the box.



If you identify constraints that any solution to a specific problem must obey, you can channel your search into more productive directions. Eventually you must always figure out which of your possible solutions are workable and which are not. By imposing constraints on your solution search—in effect, understanding what box they will ultimately have to fit into—you can filter out unworkable ideas before they take shape and see the real solutions more easily.

Becoming aware of the relevant constraints can be powerfully liberating. Filtering out your thoughts this way may at first seem as though it would censor potentially good ideas. But, on the contrary, identifying the underlying attributes of real solutions can actually help generate ideas.

When you are faced with a difficult problem, it's all too easy to get caught up in what you don't know. So instead begin by figuring out what you do know about the solution, even if it is incomplete. Identify all the attributes that will be a necessary part of any workable solution. These necessary attributes are the principles (mathematicians call them axioms) that will serve as problem-solving catalysts. A great advantage of this principle-centered approach is that it helps to focus your search by preventing you from having to start from scratch every time you run into a roadblock.

151- What is the best title for the passage?

- 1) How to Be Creative
- 2) Principled Problem Solving
- 3) Virtues of Brainstorming
- 4) Thinking Outside the Box: Pros and Cons

152- Which of the following best describes the author's attitude towards the quoted statements in paragraph 1?

- | | |
|---------------------------|------------------------------|
| 1) Pointed opposition | 2) Reproachful and disturbed |
| 3) Skeptical but resigned | 4) Partial endorsement |

153- The author implies that if you try to solve problems on the basis of the axiom according to which all boundaries that prevent you from innovating are to be broken, you would then

- 1) come up with a number of workable and unworkable plans between which you cannot make a distinction
- 2) never be able to extricate yourself from popular, non-academic approaches to problem solving
- 3) beat more about the bush due to not having channeled your search already
- 4) find yourself imprisoned within a hypothetical box of limited viable options

154- Which of the following statements is the author more likely to agree with?

- 1) Letting constraints filter and guide your thinking can often be the best way to reach truly creative solutions.
- 2) Becoming aware of the relevant constraints may adversely affect the generation of certain pragmatic solutions.
- 3) When faced with a difficult problem, getting caught up in a web of relevant and irrelevant constraints is inevitable.
- 4) When solving problems, make no use of that part of your background knowledge that is part of folk culture.



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155- According to the passage, the "necessary attributes" mentioned in paragraph 4

- 1) can be the end result of work in mathematics
- 2) may at times prove to be too difficult to identify in the first place
- 3) can help accelerate the search for the right solution to a problem
- 4) are organic to the integrity of not only mathematics but also chemistry

Passage 2:

The world's honeybees appear to be dying off in horrifying numbers, and now consensus is starting to emerge on the reason why: it seems there is no one cause. Infections, lack of food, pesticides and breeding—none catastrophic on their own—are having a synergistic effect, pushing bee survival to a lethal tipping point. A somewhat anti-climactic conclusion it may be, but appreciating this complexity—and realizing there will be no magic bullet—may be the key to saving the insects.

A third of our food relies on bees for pollination. Both the US and UK report losing a third of their bees last year. Other European countries have seen major die-offs too: Italy, for example, said it lost nearly half its bees last year. The deaths are now spreading to Asia, with reports in India and suspected cases in China.

But while individual "sub-lethal stresses" such as infections are implicated, we know little about how they add together. The situation should become clearer in the next few years as the US government, the EU and others are pouring money into bee research. The UK, for example, has doubled its annual research budget, allocating £400,000 a year for the next five years.

On top of that, the UK National Bee Unit will get £2.3 million to map the problem. This money is urgently needed, says Peter Neumann of the Swiss Bee Research Centre in Berne, who runs COLLOSS, a network of researchers studying colony loss in 36 countries. "We don't have the data to assess the situation in Europe, never mind the world," he says.

The main stress facing bees is the varroa mite, a parasite from Siberia that has now spread everywhere but Australia. Mite infestations steeply reduce bees' resistance to viral infection. Worryingly, the mites are developing resistance to the pesticides used to control them, forcing beekeepers to use methods that are often less effective.

French and German beekeepers blame their losses on insecticides called neonicotinoids—but France banned them 10 years ago and its bees are still dying. Neumann suspects a wider problem, citing experiments showing that agricultural chemicals that are safe for bees when used alone are lethal in combination. "Farmers increasingly combine sprays," he says. They also leave few flowering weeds, depriving bees of essential nutrients from different kinds of pollen, he adds.

156- Which of the following best describes "this complexity" as it is used in paragraph 1?

- 1) Honeybee's survival being uncertain
- 2) Honeybees' being attacked on many fronts
- 3) The unpromising prospect for saving honeybees
- 4) The intricate relationship between saving all insects and saving honeybees



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157- What is the function of paragraph 2 in relation to paragraph 1?

- 1) It qualifies the conclusion made in paragraph 1.
- 2) It provides specific information lending support to the problem portrayed in paragraph 1.
- 3) It questions the possibility of finding a solution to the problem described in paragraph 1.
- 4) It brings in facts and figures disproving the claim made in paragraph 1 to the effect that honeybees are actually being pushed to a lethal tipping point.

158- The passage provides sufficient information to answer which of the following questions?

- 1) Why did Italy lose fewer honeybees than the US and the UK?
- 2) Why does the author state that each single cause of honeybee die-offs is not catastrophic on its own?
- 3) Why is Siberia a good place for the growth of a parasite that is said to be the main culprit for honeybees' dying off across the world?
- 4) Why is it that the author claims that the synergistic effect of various causes of honey bee losses would be clearer in the near future?

159- The word "them" in paragraph 5 refers to

- | | |
|-----------------|---------------|
| 1) mites | 2) pesticides |
| 3) infestations | 4) bees |

160- Why does the author mention "France" in the last paragraph of the passage?

- 1) To emphasize the inefficacy of current anti-parasite strategies
- 2) To refer to the length of the existence of a persistent problem
- 3) To introduce a country with a novel solution
- 4) To refute an earlier assertion

This is the end of Section 5.