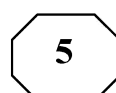
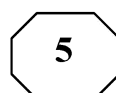




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## بخش پنجم

راهنمایی:

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

### PART A: Grammar

**Directions:** Select the answer choice (1), (2), (3), or (4) that best completes the blank. Then mark the correct choice on your answer sheet.

- 131- The passage attempts to describe a new theory of spiral-galaxy structure and contrast it with one of ..... .  
1) accepted theories the most widely      2) theories accepted the most widely  
3) theories the most widely accepted      4) the most widely accepted theories
- 132- The new business produced greater profits than ..... a workweek longer than five days.  
1) those required businesses with      2) it was for businesses that required  
3) did businesses requiring      4) businesses did require
- 133- The triglycerides are removed from the VLDL's by fatty and other tissues. .... that must be eliminated from the blood.  
1) A remnant particle is what remains  
2) What remains is a remnant particle  
3) What remains of a remnant particle  
4) A remnant particle of what remains is
- 134- Hardy was to some degree interested in exploring his characters' psychologies, though ..... less by curiosity than by sympathy.  
1) to impel      2) impels  
3) impelled      4) impelling
- 135- Only after several inadequate breaths under such conditions, resulting in the considerable elevation of carbon dioxide and reduction of oxygen in the blood, .....  
1) which adjusts is breathing effort      2) is breathing effort adjusted  
3) adjusting breathing effort      4) breathing effort is adjusted
- 136- When experimental populations are set up under simple laboratory conditions, the predator often exterminates its prey and then becomes extinct itself, .....  
1) while having nothing be left to be eaten  
2) and having nothing left for eating  
3) by having left nothing to eat  
4) having nothing left to eat

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- ## آخرین اخبار و اطلاعات آزمون دکتری در وب سایت پی اچ دی تست

- ## PART C: Reading Comprehension

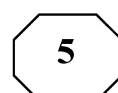
### Passage 1:

**After focus, the next most important thing for a novelist is, hands down, endurance. If you concentrate on writing three or four hours a day and feel tired after a week of this, you're not going to be able to write a long work. What's needed for a writer of fiction—at least one who hopes to write a novel—is the energy to focus every day for half a year, or a year, two years ... .**

صفحه ۲۱



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Fortunately, these *two disciplines*—focus and endurance—are different from talent, since they can be acquired and sharpened through training. You'll naturally learn both concentration and endurance when you sit down every day at your desk and train yourself to focus on one point. This is a lot like the training of muscles ... gradually you'll expand the limits of what you're able to do. Almost imperceptibly you'll make the bar rise. This involves the same process as jogging every day to strengthen your muscles and develop a runner's physique ... . Patience is a must in this process, but I guarantee the results will come ... . The great mystery writer Raymond Chandler once confessed that even if he didn't write anything, he made sure he sat down at his desk every single day and concentrated.

151- What is the primary purpose of the passage?

- 1) To point out the shortcomings of a common understanding of a special ability
- 2) To illuminate the factors underlying a phenomenon
- 3) To categorize a concept based on a common theme
- 4) Contrast the alternative interpretations of a skill

152- In paragraph 1, the writer has used an analogy in order to .....

- 1) correct a misunderstanding
- 2) deflate his early statement
- 3) downplay the role of talent
- 4) further support his thesis

153- Which of the following best describes the function of paragraph 2 in relation to the central theme of paragraph 1?

- 1) Qualifies it to some extent
- 2) Rejects it invoking the history of art
- 3) Accentuates it with further examples
- 4) Introduces a number of exceptions to it

154- What does the passage state about Schubert and Mozart?

- 1) They vanished from the world of art when their fame had begun to wane.
- 2) Their present-day appeal is wholly attributable to their unworldly genius.
- 3) Their early death made a contribution to their unprecedented renown.
- 4) They perished at a time when they were in their heydays.

155- Which of the following statements is true, according to the passage?

- 1) One's talent is not under one's full control.
- 2) The qualities required to make someone a great novelist are acquired rather than innate.
- 3) Anyone short of talent is highly unlikely to be able to produce a decent novel of enough length.
- 4) Focus and endurance are two qualities that can be picked up very fast in formal training sessions.

Passage 2:

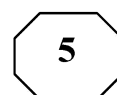
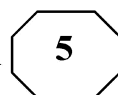
Polar bears are being increasingly threatened by the effects of climate change, but their disappearance could have far-reaching consequences. They are uniquely adapted to the extreme conditions of the Arctic Circle, where temperatures can reach -40°C. One reason for this is that they have up to 11 centimeters of fat underneath their skin. Humans with comparative levels of adipose tissue would be considered obese and would be likely to suffer from diabetes and heart disease. Yet the polar bear experiences no such consequences.

A 2014 study by Shi Ping Liu and colleagues sheds light on this mystery. They

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compared the genetic structure of polar bears with that of their closest relatives from a warmer climate, the brown bears. This allowed them to determine the genes that have allowed polar bears to survive in one of the toughest environments on Earth. Liu and his colleagues found the polar bears had a gene known as APoB, which reduces levels of low-density lipoproteins (LDLs)—a form of ‘bad’ cholesterol. In humans, mutations of this gene are associated with increased risk of heart disease. Polar bears may therefore be an important study model to understand heart disease in humans.

The genome of the polar bear may also provide the solution for another condition, one that particularly affects our older generation: osteoporosis. This is a disease where bones show reduced density, usually caused by insufficient exercise, reduced calcium intake or food starvation. Bone tissue is constantly being remodeled, meaning that bone is added or removed, depending on nutrient availability and the stress that the bone is under. Female polar bears, however, undergo extreme conditions during every pregnancy. Once autumn comes around, these females will dig maternity dens in the snow and will remain there throughout the winter, both before and after the birth of their cubs. This process results in about six months of fasting, where the female bears have to keep themselves and their cubs alive, depleting their own calcium and calorie reserves. Despite this, their bones remain strong and dense.

Physiologists Alanda Lennox and Allen Goodship found an explanation for this paradox in 2008. They discovered that pregnant bears were able to increase the density of their bones before they started to build their dens. In addition, six months later, when they finally emerged from the den with their cubs, there was no evidence of significant loss of bone density. Hibernating brown bears do not have this capacity and must therefore resort to major bone reformation in the following spring. If the mechanism of bone remodeling in polar bears can be understood, many bedridden humans, and even astronauts, could potentially benefit.

156- What is the passage mainly concerned with?

- 1) The medical benefits of the polar bear for humanity
- 2) Differences between the polar bear and the brown bear
- 3) The way the polar bear has managed to survive over time
- 4) The physiological similarity between polar bears and humans

157- Which of the following can be understood from the passage about the study by Shi Ping Liu and colleagues?

- 1) It ushered in further studies designed to use animals' physiology to combat diseases in humans.
- 2) It was motivated by the polar bear's exceptional ability to overcome diseases that are fatal to humans.
- 3) It revealed the reason why the polar bear is immune to a condition that is detrimental to humans.
- 4) It led to the discovery of a special gene whose mutation is believed to have terrible consequences for humans.

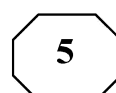
158- Which of the following does the underlined “one” in paragraph 3 refer to?

- 1) genome
- 2) condition
- 3) solution
- 4) polar bear

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159- Which of the following is NOT stated about the pregnant polar bear?

- 1) It does not significantly lose the strength and density of its bone, although it does not eat anything for about six months.
- 2) It stays, for some time, in the den it constructs not only before but also after the birth of its cubs.
- 3) It begins to augment the density of its bone shortly after building its den to start fasting.
- 4) It consumes its own calcium and calorie reserves during the time it is in its den.

160- What rhetorical function or technique is not used in the development of the main point in the last paragraph?

- |                        |                        |
|------------------------|------------------------|
| 1) Process description | 2) Appeal to authority |
| 3) Contrast            | 4) Causality           |

This is the end of Section 5.