英　　語

(問　題)

2015年度

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注　意　事　項

1. 試験開始の指示があるまで、問題冊子および解答用紙には手を触れないこと。
2. 問題は２～11ページに記載されている。試験中に問題冊子の印刷不鮮明、ページの落丁・乱丁及び解答用紙の汚損等に気付いた場合は、手を挙げて監督員に知らせること。
3. 解答はすべて、ＨＢの黒鉛筆またはＨＢのシャープペンシルで記入すること。
4. マーク解答用紙記入上の注意
   (1) 印刷されている受験番号が、自分の受験番号と一致していることを確認したうえで、氏名欄に氏名を記入すること。
   (2) マーク欄にははっきりとマークすること。また、訂正する場合は、消しゴムで丁寧に、消し残しがないようによく消すこと。

マークする時	●良い	◎悪い	⬭悪い
マークを消す時	○良い	◎悪い	⬭悪い

5. 解答はすべて所定の解答欄に記入すること。所定欄以外に何かを記入した解答用紙は採点の対象外となる場合がある。
6. 試験終了の指示が出たら、すぐに解答をやめ、筆記用具を置き解答用紙を裏返しにすること。
7. いかなる場合でも、解答用紙は必ず提出すること。

〔Ⅰ〕 次の英文（ⅰ）～(ⅷ) を読んで、設問1～25の解答として最も適当なものを、（A）～（D）の中から選びなさい。

（ⅰ）Don "Big Daddy" Garlits can add another record to his impressive resume — fastest quarter-mile run ever made in an electric vehicle. Garlits, who is 82, tripped the lights at 184.01 mph with an elapsed time of 7.258 seconds. That was well short of the 200 mph benchmark he'd hoped to set, but he still obliterated the previous record by 24.16 mph. "We didn't get the 200 but we set a new record," he said in a statement after last week's attempt. "Our 200 is coming up next!"

It seems somehow appropriate that Garlits, widely considered the father of drag racing, would set such a record. Fifty years ago he became the first man to hit 200 mph in a gasoline-powered dragster, and he's set a slew of records in the years since. He made the latest run for a record at Bradenton Motorsports Park in Florida in Swamp Rat 37. The car uses a lithium-polymer battery array comprised of four packs, two on each side of the car. Each pack contains 300 cells for a total of 1,200 cells, making a maximum of 420 volts with a current of 3,600 amps. All that juice feeds six 7.5-inch series-wound DC motors. Total output is 1,500 kilowatts, or about 2,000 horsepower.

1. Why is Don "Big Daddy" Garlits famous?
（A）Broke the previous record by 24.16 mph.
（B）First man to race an electric vehicle.
（C）Long career of setting speed records.
（D）Oldest man to set a land speed record.

2. What is unique about this electric vehicle?
（A）Lithium-polymer battery array
（B）Six 7.5-inch series-wound DC motors
（C）Total output of about 2,000 horsepower
（D）Not enough information given

3. When will Don "Big Daddy" Garlits break 200 mph in an electric vehicle?
（A）After setting the record
（B）Coming up soon
（C）Next week
（D）Not enough information given

4. What is the best title for this passage?
（A）"Big Daddy" Still Racing at 82
（B）Battery-powered Vehicle Speeds to Victory
（C）Electric Vehicle Fails to Break 200 mph
（D）Racing Legend Sets New Record

(ii) Does reading faster mean reading better? That's what speed-reading apps claim, promising to boost not just the number of words you read per minute, but also how well you understand a text. There's just one problem: The same thing that speeds up reading actually gets in the way of comprehension, according to a new study.

When you read at your natural pace, your eyes move back and forth across a sentence, rather than plowing straight through to the end. Apps like "Spritz" or the aptly named "Speed Read" are built around the idea that these eye movements, called saccades, are a redundant waste of time. It's more efficient, their designers claim, to present words one at a time in a fixed spot on a screen, discouraging saccades and helping you get through a text more quickly. This method, called rapid serial visual presentation (RSVP), has been controversial since the 1980s, when tests showed it impaired comprehension, though researchers weren't quite sure why. With a new crop of speed-reading products on the market, psychologists decided to dig a bit more and uncovered a simple explanation for RSVP's flaw: Every so often, we need to scan backward and reread for a better grasp of the material. Turns out rereading isn't a waste of time — it's essential for understanding.

5. What does the study conclude about speed-reading apps?
(A) Boosts the number of words read.
(B) Discourages saccades.
(C) Helps users understand a text.
(D) Impairs understanding.

6. How do one's eyes move when reading naturally?
(A) Back and forth
(B) Fixed spot
(C) Plow straight through
(D) Not enough information given

7. What can help improve reading comprehension?
(A) Control saccades.
(B) Develop rapid serial visual presentation.
(C) Increase the number of words read per minute.
(D) Scan backwards and reread.

(iii) You've heard the term and probably read stories about smart homes where the toaster talks to the smoke detector. But what makes it all connect? When will it become mainstream, and will it work?

There is no agreed-upon definition of the Internet of Things (IoT), but there is a test for determining whether something is part of the IoT: Does one vendor's product work with another's? Does a door lock by one vendor communicate with a light switch by another vendor, and do you want the thermostat to be part of the conversation?

Here's the scenario: As you approach the front door of your house, a remote control built into your key unlocks the door. The door's wireless radio messages the network, which prompts the hall light to turn on. The house thermostat, which was lowered after you left for work, returns to a comfort zone. Everything is acting in concert, which brings us to the elegant definition of IoT by Paul Williamson, director of low-power wireless for semiconductor maker CSR: "A true Internet of Things is coordination between multiple devices."

Sensors make the Internet of Things almost human. Many IoT devices have sensors that can register changes in temperature, light, pressure, sound and motion. They are your eyes and ears to what's going on in the world.

8. In the first sentence, what does it mean that "the toaster talks to the smoke detector"?
(A) The smoke detector reacts to noises the toaster makes.
(B) The toaster and smoke detector communicate over a wireless network.
(C) When toast burns, the smoke detector is activated.
(D) None of the above.

9. What is the definition of the Internet of Things?
(A) There is no one answer.
(B) Coordination between multiple devices.
(C) Various products act in concert.
(D) All of the above.

10. What is the main idea of this passage?
(A) Connecting various household appliances is now possible.
(B) The Internet of Things is almost human.
(C) The Internet of Things is defined and explained.
(D) The Internet of Things will simplify our lives.

(iv) It's a grim fact of life in the United States: Children born into poor families are sicker and die earlier than their well-off counterparts, particularly from obesity-related diseases such as heart attack and stroke. Now, new data from a famous North Carolina study of early childhood education suggest that such disparities are not carved in stone. Children who grew up poor but participated in an intensive, 5-year day care program are significantly healthier in their mid-30s than similarly impoverished children who did not receive the same care, researchers report. The study provides rare experimental evidence that such programs can give poor children a better shot at living longer, healthier lives.

Launched in 1972 at the University of North Carolina (UNC), Chapel Hill, the Carolina Abecedarian Project is one of the longest running studies on the benefits of early childhood education for low-income children. The original goal of the research was to see if it was possible to enhance IQ and school readiness among poor children at high risk of falling behind as they transitioned into grade school, says UNC Chapel Hill psychologist Frances Campbell, who joined the study decades ago as an evaluator. "No one could see anything wrong" with these infants, she says, "but then they'd get to school and fall flat."

11. What can we infer about children from well-off American families?
(A) Healthier
(B) Smarter
(C) Stronger
(D) None of the above

12. What does this study conclude about children from poor families?
(A) They could be helped with early education.
(B) They are destined to have health problems.
(C) Their diet and exercise help prevent illnesses.
(D) They have been studied since 1972.

13. What is the best title for this passage?
(A) Day Care May Yield Health Benefits
(B) Low-income Families' Medical Needs Great
(C) Poor Americans at Risk for Diseases
(D) The Rich Get Richer and the Poor Get Poorer

(v) When nearly every dinosaur went extinct 66 million years ago, the only ones that survived were those that had shrunk — that is, the birds. Today, there are 10,000 species of these feathered fliers, making them the most diverse of all the four-limbed animals. A new study reveals why this lineage has been so successful: Birds started downsizing well before the rest of the dinosaurs disappeared.

"This is a very impressive piece of work and by far the most comprehensive analysis of dinosaur body size that has been conducted," says Stephen Brusatte, a paleontologist at the University of Edinburgh in the United Kingdom, who was not involved in the research. "The study shows that birds didn't just become small suddenly, but were the end product of a long-term trend of body size decline that took many tens of millions of years."

Although many dinosaurs were getting bigger and bulkier over millions of years, one group seems to have hedged its bets on body size: the maniraptorans, feathered dinos that include Velociraptor of Jurassic Park fame and that eventually gave rise to the birds. To pin down how dinosaur size changed over time, a team led by Roger Benson, a paleontologist at the University of Oxford in the United Kingdom, estimated the body size of 426 different species, using the thickness of their fossilized hind leg bones as a proxy for their overall weight.

14. How did birds survive when other dinosaurs went extinct?
(A) Became smaller when other dinosaurs went extinct.
(B) Feathered fliers had advantages over land-based dinosaurs.
(C) Were getting smaller before other dinosaurs went extinct.
(D) Not enough information given.

15. How did paleontologists collect data for this study?
(A) Calculated dinosaur weight.
(B) Estimated dinosaur length.
(C) Measured dinosaur body size.
(D) Weighed dinosaur fossils.

16. What is the main idea of this passage?
(A) Birds are the most diverse of all four-limbed animals.
(B) Flying helped early birds avoid extinction.
(C) Most dinosaurs went extinct 66 million years ago.
(D) Smaller body size helped some dinosaurs avoid extinction.

(vi) Whether you enjoy rushing down a steep mountain trail, riding along country roads or commuting to work on two wheels, bicycling can help you reach the government's recommended 150 minutes a week of moderate exercise. And since it's easy to learn — and hard to forget — this low-impact exercise is great for all ages. The best part is that the more miles you ride, the more you'll reap health benefits like the following.

"As a cardiovascular exercise it's excellent," says Bruce Drees, president of the Tidewater Bicycle Association. "I think it ranks right up there with running and swimming." Because bicycling works the heart, blood vessels and lungs all at the same time, it also decreases your risk of stroke, high blood pressure and heart attack.

Unlike other forms of exercise, bicycling is low-impact so it will put less strain on your joints. That's why many runners make the switch to biking when their knees start to go. "Runners readily adapt to bicycling," says Drees, "because it is cardiovascular exercise, but it has less impact on the knees." Even older adults who have had knee or hip replacements often find bicycling easy on the joints.

According to the Centers for Disease Control and Prevention, regular physical activity, like bicycling, can increase your chances of living longer, as well as reduce your risk of chronic diseases like cardiovascular disease, type 2 diabetes and some forms of cancer.

17. What can bicycling help you do?
(A) Enjoy the outdoors.
(B) Get to work.
(C) Meet government recommendations.
(D) All of the above.

18. Why is bicycling relatively easy to do?
(A) Easy on your joints.
(B) Easy to learn.
(C) Easy to remember.
(D) All of the above.

19. What is the main idea of this passage?
(A) Bicycling is a good pastime for everyone.
(B) Bicycling provides a variety of health benefits.
(C) Biking meets or exceeds government recommendations.
(D) Runners with joint problems should switch to bicycling.

(vii) By now you probably know about the plight of America's honeybees: the collapsed colonies and dying hives, threatening pollination services to crops and the future of a much-beloved insect.

But it's not just honeybees that are in trouble. Many wild pollinators — thousands of species of bees and butterflies and moths — are also threatened. Their decline would affect not only our food supply, but our landscapes, too. Most honeybees live in commercially managed agricultural colonies; wild pollinators are caretakers of our everyday surroundings.

"Almost 90 percent of the world's flowering species require insects or other animals for pollination," said ecologist Laura Burkle of Montana State University. "That's a lot of plants that need these adorable creatures for reproduction. And if we don't have those plants, we have a pretty impoverished world."

Compared to honeybees, wild pollinators are not well studied, and their condition has received relatively little public attention. Most people don't realize that there are thousands of bee species in the United States. Even many butterflies are overlooked, with the plight of just a few species, particularly monarchs, widely recognized.

Wild bees and butterflies are out on the landscape, making them difficult to count, and a lack of historical baselines makes it challenging to detect long-term trends. Slowly but surely, though, results from field studies and anecdotal reports from experts are piling up. They don't paint a pretty picture. Many pollinator populations seem to be dwindling. Species that used to be in all our yards are dropping out, but nobody's monitoring them.

20. What is NOT a difference between honeybees and wild pollinators?
(A) Their populations are declining.
(B) They can be easily studied and monitored.
(C) They live in commercially managed colonies.
(D) They pollinate most flowering plants.

21. What does Laura Burkle predict will happen if wild pollinators die out?
(A) Adorable creatures will be gone.
(B) Flowers will require manual pollination.
(C) Our everyday surroundings will be diminished.
(D) We will be financially impoverished.

22. What is the best title for this passage?
(A) Dark Future for a Much-beloved Insect
(B) Many Wild Pollinator Populations are Dwindling
(C) The Plight of America's Honeybees
(D) Wild Pollinators Receive Little Public Attention

(viii) Shanghai students have widened their lead in the latest global comparison of the educational skills of 15-year-olds. Asian city-states dominate the rankings, released today, while U.S. students continue to lag behind their counterparts in the industrial world.

Every 3 years, the Programme for International Student Assessment (PISA) measures how well students can apply what they've learned in reading, mathematics, and science to practical problems. And the 2012 results are similar to 2009 and earlier versions. Of 65 participants, which include both countries and smaller geographic units such as provinces and states, Shanghai once again leads the way in all three subjects, while Singapore and Hong Kong hold down the next two spots in math and science. China did not participate as a country, and PISA allowed several U.S. states to compare their students to the rest of the world. Two other traditional powerhouses, Korea and Japan, are the only large nations who made it into the top 10, and both countries made significant progress in science.

The United States ranks 26th in math and 21st in science out of the 34 countries in the Organisation for Economic Co-operation and Development (OECD), which conducts the assessment. In addition to compiling head-to-head rankings, OECD collects data on educational policies and practices around the world, with topics ranging from how countries educate their poorest students to parental attitudes toward the importance of an education.

23. How do the latest PISA results compare to earlier exams?
(A) A little higher
(B) About the same
(C) Somewhat lower
(D) Not enough data given

24. How did American students' results compare to earlier exams?
(A) A little higher
(B) About the same
(C) Somewhat lower
(D) Not enough data given

25. What is the main idea of this passage?
(A) Asian students do better in math and science than Western students.
(B) Asian students occupy most of the top spots in the PISA rankings.
(C) Students from developed countries performed poorly on the PISA exam.
(D) Students in city-states outperformed students from larger countries.

〔Ⅱ〕 次の設問26～40の空所を補うものとして最も適当な語を、（A）～（K）の中から選びなさい。ただし、使われない語が含まれていることもあります。また、同じ語を繰り返して使うこともできます。空所に何も補う必要のない場合には（L）を選びなさい。

（A）about	（B）at	（C）by	（D）for	（E）in	（F）of
（G）off	（H）on	（I）out	（J）up	（K）with	（L）NO WORD

26. You really missed _____ by not coming with us to the exhibition.

27. What came out _____ your negotiations with the supply company?

28. The allies decided to take _____ arms against their enemy.

29. He's quite sharp as a businessman but he's really vain _____ his appearance.

30. She takes _____ her frustrations on the punching bag at the boxing gym.

31. Practice outweighs _____ theory in learning a foreign language.

32. We spent several hours discussing _____ the new housing project.

33. I haven't seen her for a while, but I think of her _____ odd moments.

34. If you spray your coat with this, it will keep _____ the rain.

35. Pete urged himself _____ despite his weariness.

36. Amy was _____ disguise at the party, but I eventually recognized her.

37. Immediately _____ his arrival in Los Angeles, he called his contact at the university.

38. Now that you have come _____ age, you should exercise the right to vote.

39. The mother screamed at her 5-year-old son, "For crying _____ loud, can't you see I'm busy?"

40. His constant devotion to his work carried _____ him to the top of his profession.

〔Ⅲ〕 次の設問41～50のA～Dのうち、誤った英語表現を含んだ部分がある場合にはA～Dの中の一つを、誤りがない場合にはEを選びなさい。

41. While I was thinking to (A) answer, another student spoke up (B) and I lost the opportunity (C) to explain (D) my view. NO ERROR (E)

42. We weren't familiar with (A) the equipments (B), so it took time (C) to adjust the temperature (D) in the room. NO ERROR (E)

43. Had there been (A) another option, I will have (B) made reservations (C) for the night flight (D) to Paris. NO ERROR (E)

44. Winds began to blow (A), the sky grew darkened (B), the air turned cool (C) and we hurried to (D) our hotel. NO ERROR (E)

45. Barring (A) a recession (B), consumers might have (C) loosen their purse strings (D) gradually. NO ERROR (E)

46. In the United States, there used to be (A) a law that (B) it prohibited (C) the sale of alcohol (D). NO ERROR (E)

47. I am not sure (A) if (B) I can convince (C) everyone of (D) my friend's innocence. NO ERROR (E)

48. The injured student (A) was left (B) the hospital (C) after three days (D). NO ERROR (E)

49. I would like to work for (A) a company which (B) the use of English (C) is necessary (D). NO ERROR (E)

50. Had I (A) not been known her (B), I would not have enjoyed (C) my life in college (D). NO ERROR (E)

〔以 下 余 白〕