

10. Tesla believed that all matter came from a primary substance which filled all space, and he stoutly maintained that cosmic rays and radio waves sometimes moved more swiftly than light.

- ① brilliantly ② firmly ③ miserably
- ④ pathetically ⑤ slyly

[11-15] Choose the best answer for the blank.

[각 1.3점]

11. As a young surgeon Hua Tuo believed in simplicity, using only a few prescriptions and a few points for acupuncture. Using a preparation of hemp and wine, he was able to make his patients insensitive to pain. Hua was thus the discoverer of ().

- ① placebo ② acupuncture ③ cupping
- ④ anesthetics ⑤ antibiotic

12. Although Achebe has been a () writer of novels, short stories, plays, and other works, his international reputation rests overwhelmingly on his first novel, *Things Fall Apart*, published in 1958.

- ① prolific ② indentured ③ introverted
- ④ illegible ⑤ pecuniary

13. Researchers have discovered that green tea is rich in polyphenols, a type of chemical that prevents cells from being damaged and becoming more () to aging or to diseases like cancer.

- ① irrevocable ② vulnerable ③ voracious
- ④ intelligible ⑤ indubitable

14. Urdu is a composite language. Its grammar and syntax are () to India, but it draws its script--and a heavy share of its vocabulary--from Persian and Arabic influences that came on the back of Muslim invasions.

- ① indigenous ② ingenious ③ ingenuous
- ④ inconclusive ⑤ incandescent

15. H. G. Wells is the () figure in the evolution of scientific romance into modern science fiction.

- ① corrosive ② inflexible ③ notorious
- ④ pivotal ⑤ ruinous

16. Put the following sentences into a logical order. [3점]

- Ⓐ Stillbirths were described as a “neglected tragedy” in a 2020 report published by Unicef.
- Ⓑ Air pollution particles were first detected in placentas in 2018 and by then dirty air was known to strongly correlate with increased miscarriages, premature births, low birth weights and disturbed brain development.
- Ⓒ But it followed the revelation in October that toxic air pollution particles were found in the lungs and brains of fetuses.
- Ⓓ The heavy impact of stillbirths on mothers and their families would mean that action to prevent them would boost women’s health and equality, the scientists behind the new work said.
- Ⓔ The epidemiological study did not examine how small particle pollution could cause stillbirths.

- ① Ⓐ-Ⓔ-Ⓑ-Ⓒ-Ⓓ
- ② Ⓔ-Ⓒ-Ⓓ-Ⓑ-Ⓐ
- ③ Ⓔ-Ⓒ-Ⓑ-Ⓐ-Ⓓ
- ④ Ⓔ-Ⓐ-Ⓒ-Ⓓ-Ⓑ
- ⑤ Ⓐ-Ⓓ-Ⓔ-Ⓒ-Ⓑ

17. Choose the best place to insert the following sentence. [3점]

It's a long road to legitimacy.

(Ⓐ) Traditional Chinese medicine, which has been tried and tested on its home turf over three millennia, is working hard to gain mainstream acceptance in the West, where there are stricter regulations and requirements for therapeutic trials. (Ⓑ) Based on a range of remedies inherited from Taoist scholars, and also on acupuncture, traditional Chinese medicine is derived from Confucianism. (Ⓒ) But it would be a mistake to suppose that what is now officially known as TCM has traversed so many centuries unchanged. (Ⓓ) “TCM is a political construct dating from the 1950s, following on from the 1949 revolution,” says Professor Paul Unschuld. (Ⓔ) “It includes selected aspects of historical Chinese medicine, but it is also influenced by the rationale and concepts of modern science.”

- ① Ⓐ ② Ⓑ ③ Ⓒ
- ④ Ⓓ ⑤ Ⓔ

18. What can be inferred from the underlined sentence “Sometimes technology can help unpack jargon” in the passage? [3점]

Chad Anguilm, vice president of the consulting company Medical Advantage, has been helping doctors transition to open notes. Sometimes technology can help unpack jargon, such as with dictation programs that automatically spell out the acronym a doctor uses. Anguilm said his team also creates macros that let providers quickly add a chunk of text to their notes, such as an explanation they often give. “A lot of clinicians are very guarded at first about their documentation,” Anguilm said, but they find that after a few months of working with open notes, their writing becomes more accessible to lay readers. Anguilm said it can also be helpful to reorganize the information in a medical note, so that its order matches what happened in the visit.

- ① Doctors can avoid potential information leakage.
- ② Doctors cannot share prescriptions each other.
- ③ Doctors do not have to inform patients of their prescriptions.
- ④ Doctors can save their time to explain their prescriptions to patients.
- ⑤ Doctors cannot hire reception staff or nurse to dictate their prescriptions.

[19-21] Read the passage and answer the questions.

The steps we need to take to mitigate the animal-COVID problem--and prevent other zoonotic diseases from jumping into humans--are clear, even if they don't seem to be happening. Eliminating wet markets where wild animals are sold is an obvious preventive measure, but it has been difficult to implement because the livelihoods and diets of many people, especially in the global South, depend on them. As climate change and land development ①decimate even more habitats, wildlife will be forced into ever-closer quarters with us, fostering an even more efficient exchange of viruses between species. Unlike mask wearing and other straightforward options for curbing the human

spread of COVID, preventing its transmission to, from, and among animals will require major upheavals to the way our societies run, likely far greater than we are willing to commit to.

Humans tend to act like COVID ends up afflicting us after traveling through a long chain of species. But to think so is like living in the Middle Ages when the Earth was considered the center of the universe. As we learned then, we are not that important: Humans are but (②) in an immense network of species that viruses move through in many directions. Just as animal viruses infect us, human viruses can spread to animals (measles, for example, kills a variety of great apes). There are definitely bigger problems than animal COVID--no one needs to hunker down for fear of sneezing deer--but as long as animals keep getting infected, we can't overlook what that means for us.

19. Which can best replace ①decimate? [1.3점]

- ① develop ② smash ③ forge
- ④ secure ⑤ mold

20. Choose the best word for (②). [1.3점]

- ① a wall ② an end ③ a core
- ④ a node ⑤ an impasse

21. Which of the following can be inferred from the passage? [2.7점]

- ① Banning wet markets is the best and fastest way to prevent the spread of COVID.
- ② Wearable mask for animals must be invented soon.
- ③ Livestock is unlikely to convey zoonotic diseases.
- ④ Humans have to avoid contacts with their sick pets.
- ⑤ Distance between humans and animals can help lowering human COVID cases.

[22-23] Read the passage and answer the questions.

Humanity's drugs have polluted rivers across the entire world and pose "a global threat to environmental and human health," according to the most comprehensive study to date. Pharmaceuticals and other biologically active compounds used by humans are known to harm wildlife; antibiotics in the environment drive up the risk of resistance to the drugs, one of the greatest threats to humanity. The scientists measured the concentration of 61 active pharmaceutical ingredients (APIs) at more than 1,000 sites along 258 rivers and in 104 countries, covering all continents. Only two places were unpolluted--Iceland and a Venezuelan village where the indigenous people do not use modern medicines.

The most frequently detected APIs were an anti-epileptic drug carbamazepine, the diabetes drug metformin, and caffeine. All three were found in at least half of the sites. Antibiotics were found at dangerous levels in one in five sites, and many sites also had at least one API at levels considered harmful for wildlife, with effects such as feminizing fish. The APIs end up in rivers after being taken by people and livestock and then excreted into the sewer system or directly into the environment, though some may also leak from pharmaceutical factories.

22. Which can best replace excreted? [1.3점]

- ① obsessed ② soaked ③ oozed
- ④ gripped ⑤ sponged

23. Which of the following can be inferred from the passage? [3점]

- ① We should emulate the lifestyle of the indigenous people.
- ② River pollution is not a threat to humanity and wildlife.
- ③ Antibiotics cannot harm wildlife such as fish.
- ④ Feminized fish are often genetically modified.
- ⑤ An advanced sewer system may reduce river pollution.

[24-26] Read the passage and answer the questions.

In the story of modern food, sweeteners have been a "free lunch" both to those who sell them and those who consume them. (A) For the big food companies, they have played a key role in keeping products both profitable and palatable. (B) Not only are sweeteners much cheaper ingredients than sugar, they have also been one of the central mechanisms by which the food industry persuades us to buy and consume more. (C) This is a problem for businesses that want to achieve constant growth. (D) Sweeteners were a way round this--a means by which the multinationals could encourage us to buy more food and drink than we needed, without going over our daily calorie limits. (E)

For millions of people, diet drinks provide coping mechanisms: little moments of (F) pleasure to punctuate difficult days. Before she became a historian, Carolyn was working in corporate branding for a large soft drinks company in the U.S. One of Carolyn's assignments, as she describes in her book *Empty Pleasures*, was to interview "diet brand X loyalists"--mostly working women--who consumed between six and eight cans of diet fizzy drinks a day. Carolyn found that they all talked about how exhausted they were by their routines, whether it was the demands of childcare or the frustrations of jobs that were boring and low paid. These women "universally characterized the minutes when they consumed a Diet X as distinct from these routines, . . . a brief period of time when the rest of the world would leave them alone."

24. Choose the best place to insert the following sentence. [3점]

Most adults only need to eat around 2,000-2,600 calories a day.

- ① A ② B ③ C
- ④ D ⑤ E

25. Choose the best word for (F). [1.3점]

- ① guilt-free ② sugar-free ③ thought-free
- ④ burden-free ⑤ fat-free

26. Which of the following is true according to the passage? [2.7점]

- ① Women consume more alcoholic drinks than men.
- ② Women tend to feel more lonely than men.
- ③ Women feel free when they consume diet drinks.
- ④ Sweeteners reduce the cost of diet drinks.
- ⑤ Our daily calories must be strictly regulated.

[27-28] Read the passage and answer the questions.

The glimpse into the mind of a zebrafish illuminates one of the most interesting new fronts in science's quest to understand the brain: the biology of forgetting.

We often experience forgetting as a frustration--the misplaced wallet, the name just on the tip of your tongue. And until fairly recently, the widely held convention in neuroscience was that forgetting was merely a glitch in the memory system. The brain's job was to gather and store information, and the inability to retain or retrieve those memories was a failure of some neurological or psychological mechanism.

Over the past decade or so, however, science has determined that forgetting is not just the failure of memory but its own distinct force. The fundamental insight--the *eureka* of the new science of forgetting--is that our neurons are endowed with a completely separate set of mechanisms . . . that are dedicated to active forgetting.

The brain forms memory with the help of a complex tool kit of neurotransmitters, proteins, and carbohydrates, as well as other cells; forgetting, too, has its own set of dedicated molecular tools working to clear away what's no longer relevant. After all, forgetting is one of the most fundamental aspects of a memory system. Without forgetting, nothing would work.

Forgetting serves us well. It tunes out useless information so we can focus on the relevant. Without it, neither anger at a slight nor the pain of grief would fade; feelings of love and attraction would not either, making it impossible

to move on from relationships. Memories build us, and forgetting chisels away the excess, shaping the way we see ourselves and our world.

27. Which of the following is the best title for the passage? [2.7점]

- ① Forgetting Is a Glitch in the Memory System
- ② Forgetting Is As Important As Memory
- ③ Forgetting Turns Information into Memory
- ④ Memory and Forgetting Are Irrelevant
- ⑤ Memory Retains Only Good Feelings

28. Which of the following is not true according to the passage? [3점]

- ① The brain's job was believed only to gather and store information.
- ② The inability to retrieve memories was considered a failure of some neurological mechanism.
- ③ Forgetting is one of the most fundamental aspects of a memory system.
- ④ People no longer experience forgetting as a frustration.
- ⑤ Forgetting has its own set of dedicated molecular tools working to clear away what's no longer relevant.

[29-31] Read the passage and answer the questions.

On Nov. 15, 2022, the world's population hit 8 billion. In many ways, this is a global success story, a result of longer life expectancies, fewer maternal and child deaths, and better health care. Yet at every such milestone, we witness Ⓐ inflammatory headlines warning that the number is too high.

If, however, we allow ourselves to get wrongly sidetracked by focusing on population trends instead of directly addressing climate change, inequality, and other global crises, we run the risk of coming up with the wrong fixes--ones that can Ⓑ infringe on people's right to choose whether or when to have children.

Ultimately, tackling the great challenges of our

day will not be found in any perfect number. If we make the right investments now--and strive to ensure that every adolescent can navigate their reproductive choices, stay in school, enter the work force--then 8 billion people means 8 billion opportunities to build more peaceful, prosperous, and sustainable societies.

29. What is the general tone of the passage? [2.7점]

- ① still somewhat optimistic in hoping to build a habitable Earth by right choices
- ② precautionary on future extinction of the whole human race
- ③ pessimistic about the population bomb and the scarcity of resources
- ④ strongly lamenting on the excessive exploitation of natural resources
- ⑤ misanthropic and noncommittal to the issue of human civilization

30. Which of the following pair is closest in meaning to Ⓐinflammatory and Ⓑinfringe on? [1.3점]

- ① degenerative -- improve
- ② irresponsible -- impeach
- ③ procreative -- trespassing on
- ④ irremediable -- transcend
- ⑤ provocative -- encroach on

31. Which of the following cannot be inferred from the passage? [3점]

- ① The increase of the world's population is a result of longer life expectancies, fewer maternal and child deaths, and better health care.
- ② It is better for us to focus on climate change, inequality, and other global crises than on the number of population.
- ③ Our Earth can still sustain more than 8 billion of human population.
- ④ We should ask our future generation not to increase the number of human population on Earth.
- ⑤ We are not facing a catastrophic challenge of population explosion yet.

[32-35] Read the passage and answer the questions.

Certain sorts of people, regardless of their occupation, seem to make heavy psychological demands on themselves--and, as a result, run a greater risk of heart disease. People with a particular personality style, called the *coronary-prone behavior pattern* and commonly labeled Type A, have been found to be especially (Ⓐ) heart disease. Type A people are hard-driving, competitive, and aggressive. They experience great time urgency, (Ⓑ). People who have an opposite sort of personality are termed Type B. Others are categorized somewhere in between.

Many studies have confirmed that Type A people are more (Ⓐ) heart disease than Type B people. One probable reason is that Type A people tend to make greater demands on themselves and to expose themselves to more stressful situations than do Type B people. One study of college football players, found, for example, that Type A players were rated by their coaches as playing harder than Type B players when they were injured. Type A people also tend to have an unusually intense physiological reaction to the stress that they encounter. When they are faced with a challenging situation, they tend to manifest higher blood pressure and greater increase in heart rate and in the level of epinephrine in their blood than Type B people. Some researchers believe that this greater physiological reactivity under stress--sometimes called *hot reactivity*--is the key to the link between the Type A pattern and heart disease.

32. Which of the following phrase is best for (Ⓐ)? [1.3점]

- ① susceptible to
- ② ineligible for
- ③ disinclined to
- ④ indisposed to
- ⑤ exempt from

33. Which of the following is best for (㉔)?
[2.7점]

- ① rarely trying to do more and more in less and less time
- ② always trying to do more and more in less and less time
- ③ always trying to do less and less in more and more time
- ④ rarely trying to do more and less in more and less time
- ⑤ always trying to do less and more in less and more time

34. Which of the following is best for the title of the passage?
[2.7점]

- ① The Relationship Between Type A Personality and Heart Disease
- ② Why Type A People Should Stop Working in Challenging Situations
- ③ Type A People Are More Successful in Occupational Atmospheres
- ④ Type A People Are Usually Those People with Blood Type A
- ⑤ Type B People Are Less Hard-driving, Competitive, and Aggressive

35. Which of the following cannot be inferred from the passage?
[2.7점]

- ① People with *coronary-prone behavior pattern* are hard-driving, competitive, and aggressive.
- ② College football players are rated as Type A because they usually play harder than other people.
- ③ Type A people tend to manifest higher blood pressure and greater increase in heart rate.
- ④ Some people, regardless of their occupation, make less psychological demands on themselves.
- ⑤ Higher blood pressure and greater increase in heart rate are closely related to heart disease.

[36-39] Read the passage and answer the questions.

On October 5, Nicole Mann blasted off for the space Station, becoming the first Native American

woman in space. she gave her first interview to the Associated Press and spoke about the sense of (㉑) astronauts experience looking down at Earth from space.

“It is an incredible scene of color, of clouds and land,” she said, “and it’s difficult not to stay in the cupola all day and see our planet and how beautiful ㉒she is.”

That perspective is especially important as war continues to rage in Ukraine. The crew aboard the station includes three Russian cosmonauts, three American astronauts, and one astronaut from Japan.

The power of such international collaboration is not lost on Mann. “What it does,” she said, “is just highlight our diversity and how incredible it is when we come together.”

36. Choose the best word for (㉑). [1.3점]

- ① terror ② humor ③ ire
- ④ loss ⑤ awe

37. What does the underlined ㉒she refer to? [2.7점]

- ① Nicole Mann ② space ③ Earth
- ④ female astronaut ⑤ Native American

38. Which of the following cannot be inferred from the passage? [3점]

- ① Nicole Mann is the first Native American woman astronaut.
- ② There is no Ukrainian on the station because Russia did not want one.
- ③ The crew on the station shows a diversity of Russians, Americans, and a Japanese.
- ④ Nicole Mann recognizes the importance of international collaboration.
- ⑤ It is difficult for Nicole Mann not to see how beautiful our planet is.

39. What is the best title for the passage? [2.7점]

- ① First Native American Woman in Space
- ② The Fear of Space War in the Space Station
- ③ The International Space Station For Ukraine
- ④ U.S. Astronauts and Russian Cosmonauts
- ⑤ Space War by a Native American Woman

[40-42] Read the passage and answer the questions.

Ⓐ Over time, the rising debris and the shoreline plants meet. (Ⓣ) Eventually they combine forces and transform the lake into marshy land.

Ⓑ As soon as a lake is created, natural forces begin to fill it in. (Ⓛ) Although the process can take from a few years to several centuries, over time every lake is bound to become dry land.

Ⓒ As generations of animals succeed one another, some plant and animal remains are recycled by scavengers, but inevitably some of the remains fall to the lake floor. (Ⓧ) Thus the bottom is built up, perhaps a foot or two a century. Gradually, the lake becomes shallower.

Ⓓ A lake is born when water fills a depression in the land. The first creatures to enter a newly born lake are usually tiny drifting water plants and animals called plankton. (Ⓨ) In time, the plankton increase their numbers and begin to support larger colonies of animals such as mussels, insects, fish, and birds.

Ⓔ Once the lake becomes shallow, submerged water plants begin to take root in those parts of the lake where the bottom has built up the most. (Ⓩ) At the same time, plants such as cattails, bulrushes, and burr reeds begin to sprout at the water's edge.

40. Which of the following does best put the above sentences into a logical order? [3점]

- ① Ⓑ -- Ⓔ -- Ⓒ -- Ⓓ -- Ⓐ
- ② Ⓓ -- Ⓒ -- Ⓑ -- Ⓔ -- Ⓐ
- ③ Ⓓ -- Ⓑ -- Ⓒ -- Ⓔ -- Ⓐ
- ④ Ⓑ -- Ⓓ -- Ⓒ -- Ⓔ -- Ⓐ
- ⑤ Ⓑ -- Ⓒ -- Ⓔ -- Ⓓ -- Ⓐ

41. Where does the following sentence fit best in the passage? [2.7점]

They slow the currents, speeding up the accumulation of debris on the bottom.

- ① Ⓣ ② Ⓛ ③ Ⓧ
- ④ Ⓨ ⑤ Ⓩ

42. What is the best title for the passage? [2.7점]

- ① Why Plankton Is Harmful for a Lake
- ② How a Lake Becomes Land
- ③ Why Every Lake Becomes Infertile
- ④ How a Lake Becomes Fertile
- ⑤ How Dry Land Becomes Lakes

[43-44] Read the passage and answer the questions.

Touch reorients us to the fundamental condition of being--to the inevitability of others, human and nonhuman. In touching, we are most vulnerable because we are always also being touched back. The analogy that Merleau-Ponty uses in his posthumously published work, *The Visible and the Invisible* (1964), is this: when my one hand touches the other, which one is doing the touching, and which one is being touched? We have eyelids; we can pinch our noses and shut our ears; but there are no natural skin-covers. We cannot turn off our sense of touch. To be a human in the world is to be (Ⓐ), to always be touching and touched with every single pore of our bodies.

The idea that touching nature could bridge interspecies borders makes sense intuitively. And is there any being in the plant kingdom that embodies touch more than moss and its family, the bryophytes? Moss is touch. It doesn't poke the skin of the being it touches. And it takes practically nothing from the host it is in contact with: moss is no parasite. Yet it softens trees, prevents soil erosion, and shelters animals too small for us to notice. It is continuously in touch with Earth and all its beings, including us. Inside a rainforest and on the city pavement, moss beckons us.

43. Which of the following is not stated or implied in the passage? [2.7점]

- ① Human beings cannot shut off their entire senses.
- ② Human beings are touched when they touch.
- ③ Moss does exist only when human beings perceive it.
- ④ Very small animals may hide themselves in moss.
- ⑤ Moss is the species most touched on the Earth.

44. Choose the best word for (Ⓐ). [1.3점]

- ① sensitive ② audible ③ visible
- ④ tactile ⑤ perceptive

[45-47] Read the passage and answer the questions.

The "Fourteen Points" Address at once became the single great manifesto of World War I. It was Western democracy's answer in its first full-dress debate with international communism. It raised a standard to which men of good will in all nations, Germany included, could rally.

This was true, first, because of Wilson's striking success in synthesizing what might be called the liberal peace program. Not a single one of the Fourteen Points was original. All of them had been proposed and discussed by various groups of idealists and pacifists in all leading belligerent countries.

But Wilson did more than (B) the liberal peace program. He also succeeded in assimilating many of the announced German peace objectives. Restoration of Belgium, freedom of the seas, destruction of barriers to trade, and establishment of an independent Poland were all as much German objectives as they were Allied objectives.

45. What is the main idea of the above passage? [2.7점]

- ① Wilson's "Fourteen Points" Address was not original.
- ② Wilson reemphasized the liberal peace program and assimilated German peace objectives.
- ③ Wilson's peace objectives were radically different from those of Germany.
- ④ Wilson's "Fourteen Points" Address was an answer to international fascism.
- ⑤ Wilson's "Fourteen Points" Address raised a standard to which only peace-loving nations could rally.

46. Which of the following word is closest to the underlined belligerent? [1.3점]

- ① beloved ② bedeviled ③ bequeathed
- ④ hostile ⑤ heterogeneous

47. Choose the best word for (B)? [2.7점]

- ① decapitate ② decompose ③ recapitulate
- ④ reminisce ⑤ dehumanize

[48-50] Read the passage and answer the questions.

We hold these truths to be self-evident: that all men and women are created equal; that they are endowed by their Creator with certain inalienable rights; that among these are life, liberty, and the pursuit of happiness; that to secure these rights governments are instituted, deriving their just powers from the consent of the governed. Whenever any form of government becomes destructive of these ends, it is the right of those who suffer from it to refuse allegiance to it, and to insist upon the institution of a new government, laying its foundation on such principles, and organizing its powers in such form as to them shall seem most likely to effect their safety and happiness.

48. Which of the following is the best title for the passage? [2.7점]

- ① All Men Are Not Created Equal
- ② Men and Women Have Different Rights
- ③ Alienable and Inalienable Human Rights
- ④ Why Government Should Be Respected
- ⑤ Both Sexes Equally Have Inalienable Rights

49. Which of the following is not true according to the passage? [3점]

- ① Inalienable rights are given to women by Creator.
- ② Life, liberty, and the pursuit of happiness are inalienable rights.
- ③ That government is best which governs not at all.
- ④ The reason why governments are instituted is to secure inalienable rights.
- ⑤ Governments' just powers are derived from the consent of the people.

50. Which of the following pair is closest in meaning to inalienable and allegiance? [1.3점]

- ① uninhabitable -- royalty
- ② uninhabitable -- loyalty
- ③ undeniable -- royalty
- ④ unalienable -- allegation
- ⑤ unalienable -- loyalty