

英 語

医学部医学科・応用生物科学部共同獣医学科

問 題 冊 子

注意事項

- (1) 試験開始の合図があるまで、問題冊子を開かないこと。
- (2) 問題冊子は 22 ページで、解答用紙は 6 枚である。問題冊子や解答用紙に、落丁、乱丁、印刷不鮮明のものがあつた場合は、ただちに試験監督者に申し出ること。
- (3) 受験番号は、6 枚の解答用紙のそれぞれの指定箇所に丁寧に記入すること。
- (4) 問題は、 から の 3 つの大問よりなる。
- (5) 解答は解答用紙の指定箇所に丁寧に記入すること。
- (6) 解答用紙は、持ち帰らないこと。
- (7) 問題冊子は、持ち帰ること。
- (8) 各大問の、満点に対する配点の比率(%)を次のとおりとする。
 は 25 %， は 25 %， は 50 %
- (9) 設問は英文で書かれている。

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities related to the business.

2. It is essential to ensure that all financial data is properly documented and organized for easy access and review.

3. Regular audits and reconciliations should be performed to identify any discrepancies or errors in the records.

4. The use of reliable accounting software can significantly streamline the record-keeping process and reduce the risk of human error.

5. Maintaining clear and concise communication with all stakeholders is crucial for the success of the business.

6. It is important to establish a strong foundation of trust and transparency with all parties involved in the business.

7. Regular reporting and analysis of financial performance can provide valuable insights into the business's overall health and trends.

8. The implementation of robust internal controls is necessary to safeguard the business's assets and ensure the integrity of its financial records.

9. Staying up-to-date on relevant laws and regulations is essential for compliance and the long-term success of the business.

10. Finally, a commitment to continuous improvement and innovation is key to staying competitive in a rapidly changing market.

11. The document concludes by emphasizing the importance of a proactive and strategic approach to business management.

12. By following these guidelines, businesses can ensure the accuracy and reliability of their financial records and achieve long-term success.

13. The document provides a comprehensive overview of the key principles and practices that underpin effective business record-keeping.

14. It is hoped that this information will be helpful and informative for all business owners and managers.

15. Thank you for your attention and interest in this document.

Part 1

Questions 1–8 :

Fill in the blanks (1)–(8) and complete the sentences. For each blank, you have four choices given below. Choose the best word and write A, B, C, or D in boxes 1–8 on your answer sheet.

The Red Kangaroo

The Red Kangaroo is an iconic Australian animal of the arid zone and ⁽¹⁾_____ the largest living marsupial in the world.

The Red Kangaroo is a large kangaroo with a body ⁽²⁾_____ of up to 1.4 m and tail up to 1 m. Males tend to be orange red in colouring ⁽³⁾_____ females are often blue grey. Both males and females are a lighter whitish colour underneath. Red Kangaroos can be distinguished ⁽⁴⁾_____ other species of kangaroos by the black and white patches on their cheeks and the broad white stripe that extends from the corner of the mouth to the ear. Male Red Kangaroos are ⁽⁵⁾_____ the body weight of females and can weigh up to 92 kg while the females can weigh up to 39 kg.

Red Kangaroos are ⁽⁶⁾_____, primarily grazing on grasses but also eating leaves of shrubs. The Red Kangaroo has the ability to survive when water is scarce. The herbage and foliage that the kangaroos eat provide them ⁽⁷⁾_____ their water needs as well as their nutritional requirements. In times of ⁽⁸⁾_____, Red Kangaroo populations can suffer as their food supplies diminish. The abundance of food is a determining factor in the Red Kangaroo life cycle.

(Adapted from Louise Carter, "Red Kangaroo, *Macropus rufus*," *Australian Museum*, October 30, 2015, <https://australianmuseum.net.au/red-kangaroo/>)

1. A. can B. do C. is D. have
2. A. temperature B. colour C. length D. blood
3. A. while B. hereby C. for D. intentionally
4. A. to B. with C. from D. upon
5. A. double B. surprising C. scale D. increased
6. A. habitable B. habitats C. herbicides D. herbivores
7. A. to B. with C. toward D. over
8. A. dream B. drought C. drain D. depth

Part 2

Questions 9–15 :

Fill in the blanks (9)–(15) and complete the sentences. For each blank, you have four choices given below. Choose the best phrases, and write A, B, C, or D in boxes 9–15 on your answer sheet.

The Simple Reason You Wait Until the Last Minute to Do Your Christmas Shopping

With single-digit shopping days left before Christmas, anyone who isn't completely done with holiday gift-buying is officially a last-minute shopper. And if you're one, you're ⁽⁹⁾_____. According to a new survey from the International Council of Shopping Centers, 76% of adult shoppers say they plan on making holiday purchases right up until Christmas.

Many people have perfectly logical reasons for ⁽¹⁰⁾_____ holiday gift-buying as time rapidly runs out. You may be hoping that better sale prices appear, waiting for a particular product to finally be in stock, or responsibly holding off ⁽¹¹⁾_____ until the funds are actually in your bank account. But for others—maybe even you—there isn't a straightforward reason ⁽¹²⁾_____. If you're in this boat, you are simply a holiday shopping procrastinator, and you're probably well acquainted with this annual agonizing tradition.

⁽¹³⁾_____ come of procrastination. In terms of holiday shopping, waiting until the last minute means shipping windows for online delivery close, inventories of desirable gifts shrink, and the likelihood of buying worthwhile, thoughtful gifts decreases.

In my experience as a consumer psychologist, I've talked to countless holiday shopping procrastinators, and ⁽¹⁴⁾_____ is that procrastination does not stem from laziness or thoughtlessness. (Not always, anyway.) Often, there are more complicated, less selfish reasons for not getting the job done until the last minute. Habitual holiday shopping procrastinators generally ⁽¹⁵⁾_____ one or more of the categories discussed in the next section.

(Adapted from Kit Yarrow, "The Simple Reason You Wait Until the Last Minute to Do Your Christmas Shopping," *Money*, December 20, 2016, <http://time.com/money/4604885/last-minute-holiday-gifts-why-procrastination-psychology/>)

9. A. in the majority
C. to begin with
- B. out of the question
D. one after another
10. A. being done not with
C. with done being no
- B. no done with being
D. not being done with
11. A. going home
C. speaking a word
- B. spending money
D. ignoring the payment
12. A. for waiting
C. for canceling
- B. for wasting
D. for buying
13. A. Few good things
C. A few good things
- B. A lot of good things
D. Few bad things
14. A. the money
C. the misunderstanding
- B. the bottom
D. the truth
15. A. tear apart
C. fall into
- B. break through
D. think over

Part 3

Questions 16–19 :

Read sentence A, then rearrange the words and phrases in the brackets in B to make a sentence with a similar meaning to A. In each question, there is ONE word or phrase which is not used. Then, in boxes 16–19 on your answer sheet, write the words or phrases which are not necessary to complete the sentences.

Example:

0. A : Last night Peter declared his love for Emily.

B : Peter (that / very / Emily / told / loved / he / last night) her.

The completed sentence B is “Peter told Emily last night that he loved her,” and the word “very” in the brackets is unnecessary. So you write:

0
very

Write ONLY the unnecessary words or phrases in the boxes on your answer sheet.

16. A : Jeff talked Linda into pursuing her dream to become a doctor.

B : Jeff (up / of / Linda / becoming / her dream / to / persuaded / give / that / not) a doctor.

17. A : Addiction to alcohol cost Tom his job last year.

B : Tom (his job / abuse / to / lost / due / from / alcohol) last year.

18. A : I recognized Mary as soon as I saw her at the airport.

B : I recognized (sight / moment / of / stay / I / Mary / caught / the / her) at the airport.

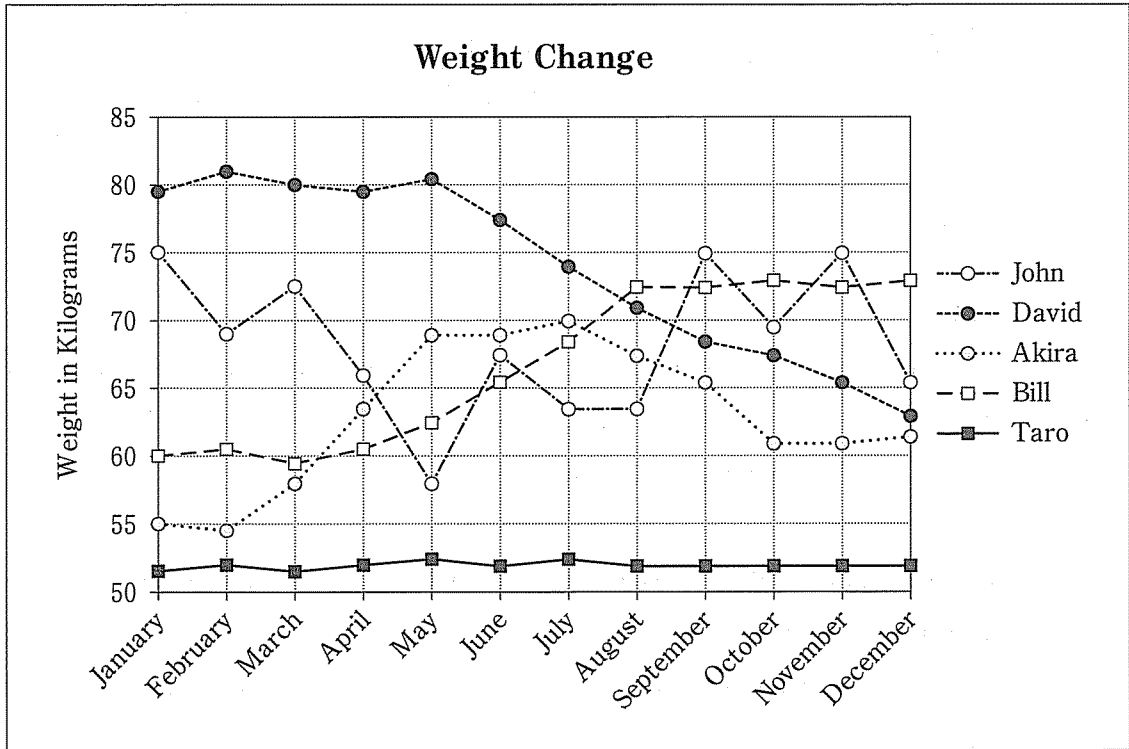
19. A : The newspaper made it known that the story was not true.

B : The newspaper (reality / not / was / more / legend / revealed / the story / than / that).

Part 4

Questions 20–21 :

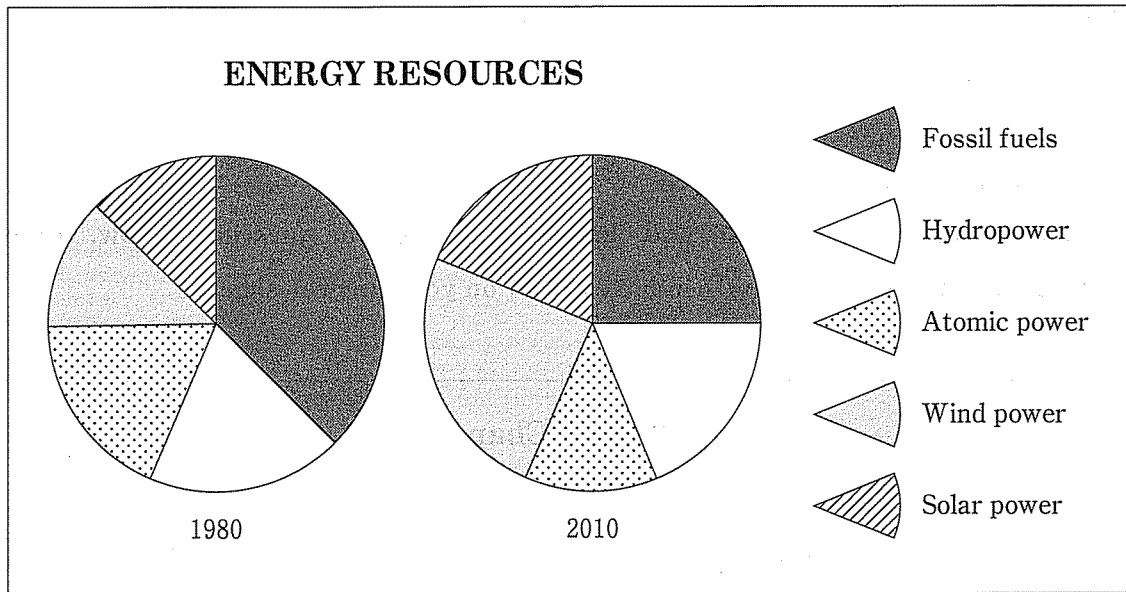
Look at the following graph and charts and answer the questions below. Write the correct letter (A, B, C, or D) in boxes 20–21 on your answer sheet.



Question 20 :

A medical doctor has observed the weight of five patients. Which of the following statements BEST describes their physical states?

- A. David has successfully reduced his weight, although he was the second heaviest patient at the beginning of the year.
- B. John and Taro reached their peak weight in July.
- C. Akira put on weight from February to May, but he managed to return to his January weight.
- D. Bill gained weight during the middle of the year and was the heaviest patient at the end of the year.



Question 21 :

A comparison of energy resources for electricity generation between 1980 and 2010 of a certain country is shown in the above charts. Which of the following statements is BEST supported by the charts?

- A. Oil, coal, and natural gas accounted for around one-third of electric power resources in the country in 2010.
- B. In 1980, using water to generate electricity was almost as common in the country as nuclear power generation.
- C. From 1980 up to 2010, oil, coal, and natural gas remained the main source of electricity in the country.
- D. The proportion of wind-generated electricity nearly doubled between 1980 and 2010 in the country, while the share of solar power saw an opposite trend.

Part 1

Questions 22–29 :

Read the draft of former U.S. President Barack Obama’s 2016 Hiroshima speech. Choose from A–I the sentence or phrase which fits each blank (22–29), and write the correct letter in boxes 22–29 on your answer sheet. There is one extra sentence or phrase that is not necessary.

Seventy-one years ago, on a bright, cloudless morning, death fell from the sky and the world was changed. ⁽²²⁾_____ and demonstrated that mankind possessed the means to destroy itself.

Why do we come to this place, to Hiroshima? We come to ponder a terrible force unleashed in a not so distant past. ⁽²³⁾_____ including over 100,000 in Japanese men, women and children; thousands of Koreans; a dozen Americans held prisoner. Their souls speak to us. They ask us to look inward, to take stock of who we are and what we might become.

It is not the fact of war that sets Hiroshima apart. Artifacts tell us that violent conflict appeared with the very first man. Our early ancestors, having learned to make blades from flint and spears from wood, used these tools not just for hunting, but against their own kind.

⁽²⁴⁾_____ whether driven by scarcity of grain or hunger for gold; compelled by nationalist fervor or religious zeal.

⁽²⁵⁾_____ Peoples have been subjugated and liberated. And at each juncture, innocents have suffered, a countless toll, their names forgotten by time.

The World War that reached its brutal end in Hiroshima and Nagasaki was fought among the wealthiest and most powerful of nations. Their civilizations had given the world great cities and magnificent art. ⁽²⁶⁾_____ And yet, the war grew out of the same base instinct for domination or conquest that had caused conflicts among the simplest tribes; an old pattern amplified by new capabilities and without new constraints. In the span of a few years, some 60 million people would die — men, women, children no different than us, shot, beaten, marched, bombed, jailed, starved, gassed to death.

There are many sites around the world that chronicle this war — memorials that tell stories of courage and heroism; graves and empty camps that echo of unspeakable depravity. Yet in the image of a mushroom cloud that rose into these skies, we are most starkly reminded of humanity’s core contradiction; how the very spark that marks us as a species —

our thoughts, our imagination, our language, our tool-making, our ability to set ourselves apart from nature and bend it to our will—those very things also give us the capacity for unmatched destruction.

How often does material advancement or social innovation blind us to this truth? How easily we learn to justify violence in the name of some higher cause. _____⁽²⁷⁾ and yet no religion has been spared from believers who have claimed their faith as a license to kill. Nations arise, telling a story that binds people together in sacrifice and cooperation, allowing for remarkable feats, but those same stories have so often been used to oppress and dehumanize those who are different.

Science allows us to communicate across the seas and fly above the clouds; to cure disease and understand the cosmos. _____⁽²⁸⁾

The wars of the modern age teach this truth. _____⁽²⁹⁾ Technological progress without an equivalent progress in human institutions can doom us. The scientific revolution that led to the splitting of an atom requires a moral revolution, as well.

(Adapted from Barack Obama, Address at the Hiroshima Peace Memorial, May 27, 2016, Hiroshima, Japan)

- A. A flash of light and a wall of fire destroyed a city,
- B. But those same discoveries can be turned into ever-more efficient killing machines.
- C. Empires have risen and fallen.
- D. Every great religion promises a pathway to love and peace and righteousness,
- E. Fresh water was not available and makeshift shelters were often flooded.
- F. Hiroshima teaches this truth.
- G. On every continent, the history of civilization is filled with war,
- H. Their thinkers had advanced ideas of justice and harmony and truth.
- I. We come to mourn the dead,

Part 2

Questions 30–42 :

Read the following text and answer the questions below.

The remarkable memory-boosting benefits of undisturbed rest were first documented in 1900 by the German psychologist Georg Elias Muller and his student Alfons Pilzecker. In one of their many experiments on memory consolidation, Muller and Pilzecker first asked their participants to learn a list of meaningless syllables. Following a short study period, half the group were immediately given a second list to learn — while the rest were given a six-minute break before continuing. When tested one-and-a-half-hours later, the two groups showed strikingly different patterns of recall. The participants given the break remembered nearly 50% of their list, compared to an average of 28% for the group who had been given no time to recharge their mental batteries. The finding suggested that our memory for new information is especially fragile just after it has first been encoded, making it more vulnerable to interference from new information.

Although a handful of other psychologists occasionally returned to the finding, it was only in the early 2000s that the broader implications of it started to become known, with a pioneering study by Sergio Della Sala at the University of Edinburgh and Nelson Cowan at the University of Missouri. The team was interested in discovering whether reduced interference might improve the memories of people who had suffered a neurological injury, such as a stroke. Using a similar set-up to Muller and Pilzecker's original study, they presented their participants with lists of 15 words and tested them 10 minutes later. In some trials, the participants remained busy with some standard cognitive tests; in others, they were asked to lie in a darkened room and avoid falling asleep. The impact of the small intervention was more profound than anyone might have believed. Although the two most severely amnesic patients showed no benefit, the others tripled the number of words they could remember — from 14% to 49%, placing them almost within the range of healthy people with no neurological damage. The next results were even more impressive. The participants were asked to listen to some stories and answer questions an hour later. Without the chance to rest, they could recall just 7% of the facts in the story; with the rest, this jumped to 79% — an astronomical 11-fold increase in the information they retained. The researchers also found a similar, though less pronounced, benefit for healthy participants in each case, boosting recall between 10 and 30%.

Della Sala and Cowan's former student, Michaela Dewar at Heriot-Watt University, has now led several follow-up studies, replicating the finding in many different contexts. In healthy participants, they have found that these short periods of rest can also improve our spatial memories, for instance — helping participants to recall the location of different landmarks in a virtual reality environment. Crucially, this advantage remains a week after the original learning task, and it seems to benefit young and old people alike. And besides the stroke survivors, they have also found similar benefits for people in the earlier, milder stages of Alzheimer's disease. In each case, the researchers simply asked the participants to sit in a dim, quiet room, without their mobile phones or similar distractions. Dewar says that she doesn't give them any specific instructions with regards to what they should or shouldn't do while resting. But questionnaires completed at the end of her experiments suggest that most people simply let their minds wander. Even then, we should be careful not to exert ourselves too hard as we daydream. In one study, for instance, participants were asked to imagine a past or future event during their break, which appeared to reduce their later recall of the newly learnt material. So it may be safest to avoid any concerted mental effort during our down time.

The exact mechanism is still unknown, though some clues come from a growing understanding of memory formation. It is now well accepted that once memories are initially encoded, they pass through a period of consolidation that cements them in long-term storage. This was once thought to happen primarily during sleep, with delicate communication between the hippocampus — where memories are first formed — and the cortex, a process that may build and strengthen the new neural connections that are necessary for later recall. This heightened night-time activity may be the reason that we often learn things better just before bed. But in line with Dewar's work, a 2010 study by Lila Davachi at New York University found that it was not limited to sleep, and similar neural activity occurs during periods of wakeful rest, too. In the study, participants were first asked to memorise pairs of pictures — matching a face to an object or scene — and then allowed to lie back and let their minds wander for a short period. Sure enough, she found increased communication between the hippocampus and areas of the visual cortex during their rest. Crucially, people who showed a greater increase in connectivity between these areas were the ones who remembered more of the task.

Perhaps the brain takes any potential down time to cement what it has recently learnt — and reducing extra stimulation at this time may ease that process. It would seem that neurological damage may render the brain especially vulnerable to that interference after learning a new memory, which is why the period of rest proved to be particularly potent for

stroke survivors and people with Alzheimer’s disease. Beyond the clinical benefits for these patients, some researchers agree that scheduling regular periods of rest, without distraction, could help us all hold onto new material a little more firmly. After all, for many students, the 10–30% improvements recorded in these studies could mark the difference between a grade or two. They say that they can imagine you could embed these 10–15 minute breaks within a revision period and that might be a useful way of making small improvements to your ability to remember later on. In the age of information overload, it’s worth remembering that our smartphones aren’t the only thing that needs a regular recharge. Our minds clearly do too.

(Adapted from David Robson, “An Effortless Way to Improve Your Memory,” *BBC Future*, February 8, 2018, <http://www.bbc.com/future/story/20180208-an-effortless-way-to-strengthen-your-memory/>)

Questions 30–34 :

Match the research findings described below (30–34) with the researcher(s) (A–D).

Write the correct letter (A, B, C or D) in boxes 30–34 on your answer sheet.

- A. Georg Elias Muller and Alfons Pilzecker
- B. Sergio Della Sala and Nelson Cowan
- C. Michaela Dewar
- D. Lila Davachi

- 30. The study found that people process what they recently learn both when they sleep and when they are restfully awake.
- 31. It was the first study to find that the brain is vulnerable to interference after developing a new memory.
- 32. The study found that healthy participants benefited less from rest compared to the participants with neurological damage.
- 33. The study found that short periods of rest can improve the memory recall of some Alzheimer’s disease patients as well as people with neurological damage.
- 34. The study found that with short periods of rest most participants with neurological damage improve their memory recall to the level of healthy people.

Questions 35–37 :

Write T or F for each of the following statements 35–37.

T = the statement agrees with the text

F = the statement does not agree with the text

35. After the Muller-Pilzecker study, a large number of studies on the memory-boosting benefits of undisturbed rest began to appear.
36. Participants with neurological damage managed to increase their memory recall to almost 80% with short term rest.
37. Michaela Dewar instructed the participants in her experiment not to think of anything while resting.

Questions 38–42 :

Complete the following summary by filling the blanks 38–42 with the most appropriate word from the list below. Write the correct letter (A–H) in boxes 38–42 on your answer sheet.

When trying to memorise new material, it's easy to assume that the more work you put in, the better you will perform. Yet taking the occasional down time — to do literally ⁽³⁸⁾ _____ — may be exactly what you need. Just dim the lights, sit back, and enjoy 10–15 minutes of quiet contemplation, and you'll find that your memory of the facts you have just learnt is far better than if you had attempted to use that moment more ⁽³⁹⁾ _____.

Although it's already well known that we should pace our studies, new research suggests that we should aim for “minimal interference” during these breaks — deliberately avoiding any activity that could ⁽⁴⁰⁾ _____ the delicate task of memory formation. So no running errands, checking your emails, or surfing the web on your smartphone. You really need to give your brain the chance for a complete ⁽⁴¹⁾ _____ with no distractions.

An excuse to do nothing may seem like a perfect memorising technique for the lazy student, but this discovery may also offer some relief for amnesic patients, suggesting new ways to ⁽⁴²⁾ _____ a hidden, previously unrecognised, capacity to learn and remember.

- | | | | |
|-------------|------------|------------|-----------------|
| A. damage | B. exceed | C. nothing | D. productively |
| E. recharge | F. recover | G. release | H. wakeful |

Questions 43–67 :

Read the following text and answer the questions below.

Disease and Global Population: The Plague and AIDS

In the mid-14th century, Europe, as well as much of Asia and Africa, was devastated by an outbreak of plague, which contemporaries called the Black Death. The disease actually took three forms: bubonic plague, pneumonic plague, and septicemic plague (all caused by the bacterium variously known as *Pasteurella pestis* or *Yersinia pestis*). It is estimated that at least 25 million and perhaps as many as 75 million of Europe's population of 100 million died between 1347 and 1351. As the plague raged, the social structure of Europe was destroyed. Contemporary accounts report that government and law enforcement, religious ceremonies, and medical practice disappeared in areas where the plague was worst. In an ecological sense, the plague can be viewed as a classic case of a "density-dependent mechanism" that served to limit the population. Six and a half centuries later, it should serve as a warning to us as we continue to overcrowd our planet. ⁽⁴⁴⁾

Medieval Europeans had no idea what caused the plague or how to control it. It is now known to be caused by a bacterium that can be carried by rodents, such as rats and squirrels, and is transmitted from rodents to people by fleas. For tens of thousands, or even millions, of years, populations of *Y. pestis* have been living in the guts of fleas that feed on rats and infect them with the plague. After the rat dies, the fleas seek another host, carrying with them the plague bacilli. Eventually, the plague-carrying flea also dies, but often not before it has infected other mammalian hosts and indirectly infected other fleas that feed on the same host.

Even today bubonic plague is not well understood, and isolated cases and small outbreaks continue to occur among people. We should remember that even with our advanced medical knowledge and technology, we could conceivably find ourselves facing an unknown or poorly understood, but rampant and devastating, disease. The current AIDS crisis is a roughly analogous situation. According to the latest data from USAID, the governmental body that ⁽⁴⁵⁾ assists in the development of struggling nations, globally from 1980 through 2009, an estimated 60 million have been infected with HIV (the cause of AIDS), and over 25 million have succumbed to ⁽⁴⁶⁾ the disease. At the current rate of infection over 7,000 new cases of HIV occur around the world each day, making AIDS the fourth leading cause of death. **▲ (A)** To date, more than 16 million children have lost one or both of their parents because of

the epidemic. In modern times, disease outbreaks cannot be isolated in the same way that they were in the time of the Black Death. ⁽⁴⁷⁾ Increased globalization puts people all

over the world in contact with one another. Certainly, the ability to transmit information, increased infrastructure, and so forth play a leading role that was not present during the time of the plague. ▲(B) On the one hand, increased intercommunication can result in increased awareness, resource aid, and responses for disease outbreaks from people and institutions all over the world. On the other hand, it can make the disease all the more difficult to isolate and control. ▲(C)

The United Nations has taken a leading role in combating AIDS, especially in African countries, where rates of infection can reach 30%; typically, epidemics curb themselves at that level. Africa still remains the epicenter ⁽⁴⁹⁾ of the global crisis, according to an update released by the Joint U.N. Program on HIV/AIDS. This report confirmed that Africa accounts for almost 80% of the 3 million annual fatalities worldwide and more than 60% of the 5 million new infections. Many of these figures are exacerbated by lack of proper funding, inadequate access to health care, poor sanitary conditions in impoverished nations, overcrowding, increases in dangerous drug use, and unsafe sex practices in both heterosexual and homosexual individuals.

The U.N. Millennium goal is to halt and reverse the epidemic by 2015 through HIV prevention, care, treatment, and impact alleviation programs. ▲(D) The response from many leading countries has been very positive, and funding for AIDS programs in developing countries, especially from the United States, has increased dramatically—from U.S. \$2 billion in 2001 to an estimated U.S. \$8 billion in 2008. However, resources still fall short of what is needed to effectively turn back the epidemic. Despite encouraging signs, the report also outlines serious challenges that need urgent attention to achieve the intended goal of reversing the epidemic. Access to HIV treatment and prevention service remains low. In 2009, there was an estimated \$7.7 billion gap between monetary support needed and monetary support received to address worldwide AIDS services. Globally, only one in five persons has access to prevention services, and in 2003 targeted prevention services reached only 16% of sex workers, 11% of men who have sex with men, 20% of street children, and less than 5% of the world's 13 million injecting drug users. Although 2010 estimates vary, worldwide over 6.5 million people are in need of HIV treatment and are not getting it for a variety of reasons including governmental barriers, access to clinics, and education about treatment. On a more positive note, progress has been made on several fronts since 2001. Worldwide, the number of people receiving counseling and testing services doubled in the 4-year period of 2001–2005. In 2009, the number of women accessing services to prevent mother-to-child HIV transmission in

middle to low income countries was up to 53%. Internationally, education programs targeted at youth continue to increase. In 2010, the Secretary General noted that the use of antiviral treatments increased 10-fold within the years of 2005 to 2008 in several areas, but cautioned that at the current funding level it will most likely not be possible to halt the spread of AIDS by 2015 as previously predicted by international organizations. While there are many promising areas of improvement in the treatment of AIDS, many challenges remain.

AIDS takes a toll in human lives but also has a devastating effect on local economies and social structures. AIDS reduces the number of healthy workers in their prime and increases the number of dependent people, including the sick, the young, and the old. Scarce resources are diverted to caring for AIDS victims, and as AIDS continues to spread, the productivity of the workforce continues to decrease. Children in particular are being hit hard; teachers are being lost to AIDS, and many children must leave school to help support the family after a parent contracts AIDS. The full effect of the AIDS epidemic will not be seen for another generation or more.

(Adapted from McKinney, M., et al., *Environmental Science: Systems and Solutions*, 5th Edition, Burlington, MA: Jones & Bartlett Learning, 2013, pp. 58–60)

Question 43 :

Look at the four triangles ▲() in the text, and choose the BEST place to add the following sentence by writing the correct letter (A, B, C, or D) in box 43 on your answer sheet.

This can be both a positive and negative thing.

Question 44 :

In Paragraph 1, what does it refer to?

- (44)
- | | |
|------------|---------------|
| A. plague | B. population |
| C. warning | D. mechanism |

Question 45 :

In Paragraph 3, what does the phrase analogous situation refer to?

- (45)
- | | |
|-------------------------|----------------------------|
| A. a strange situation | B. a contrasting situation |
| C. a familiar situation | D. a comparable situation |

Question 46 :

In Paragraph 3, the phrase have succumbed to is closest in meaning to which of the following?
⁽⁴⁶⁾

- A. have given up
- B. have died from
- C. have carried on
- D. have spread to

Question 47 :

Which of the following statements (A–D) supports sentence 47?

In modern times, disease outbreaks cannot be isolated in the same way that they were in the time of the Black Death.
⁽⁴⁷⁾

- A. The movement of people around the world has helped spread infectious diseases more easily now than in the past.
- B. The healthcare system did not always work well in the 14th century.
- C. It was harder to identify the point of origin of disease outbreaks in the 14th century than it is today.
- D. It was more difficult to trace the standard route of disease outbreaks in the past than it is today.

Question 48 :

It can be inferred from the information in Paragraph 3 that

- A. modern medical science today has unraveled the mystery of bubonic plague.
- B. parallels can be drawn between the plague in the 14th century and modern HIV/AIDS.
- C. human beings have comprehensively won the battle against global epidemics.
- D. our understanding of global epidemics remains the same as that of 14th-century Europe.

Question 49 :

In Paragraph 4, the word epicenter is closest in meaning to
⁽⁴⁹⁾

- A. category
- B. community
- C. core
- D. country

Question 50 :

In Paragraph 6, the phrase takes a toll in is closest in meaning to

- A. preserves
- B. restores
- C. ruins
- D. prolongs

Question 51 :

One fact about *Yersinia pestis* is that it

- A. can only be transmitted from person to person.
- B. dies immediately after infecting its host.
- C. was known to Europeans in the 14th century.
- D. survives in the guts of fleas after their host dies.

Question 52 :

Which of the following is NOT mentioned or CANNOT be inferred about the Black Death?

- A. The name "Black Death" was used by medieval Europeans.
- B. A treatment from the Black Death era is still popular today.
- C. It still exists in the modern world.
- D. At the time of the Black Death, the population was prone to the spread of the disease.

Question 53 :

According to the U.N. report, how many factors were cited as reasons for Africa's worsening incidences of new AIDS infections?

- A. 2
- B. 3
- C. 4
- D. 6

Question 54 :

All of the following statements about AIDS/HIV are true except

- A. AIDS refers to the illness and its set of symptoms.
- B. HIV is a virus that attacks humans.
- C. HIV is caused by AIDS.
- D. AIDS can be referred to as HIV infection.

Question 55 :

What does the author imply about the Black Death in Europe?

- A. The Black Death affected mainly an isolated European population.
- B. The grim sequence of events that struck 14th-century Europe was terrifying but kept under control.
- C. Although the Black Death could be found almost everywhere in Europe, it struck primarily rural farming villages.
- D. In 14th-century Europe, there seemed to be no scientific explanation for the plague.

Question 56 :

Outline the sequence of cause and effect showing how HIV/AIDS death tolls affect local economies, based on the information given in the last paragraph of the text. Write the letters (A, B, C and D) in the correct order in box 56 on your answer sheet.

- A. reduction of labor
- B. poor health care system
- C. inadequate care for HIV-infected persons
- D. lower economic productivity

Questions 57–62 :

Complete the following sentences by filling the blanks with the most appropriate word from the list below. Write the correct letter (A–L) in boxes 57–62 on your answer sheet.

- 57. Bubonic plague was spread by _____ and fleas.
- 58. The plague was an infectious disease that recurred as _____ resulting in the death of millions across the European continent from 1347 to 1351.
- 59. Antiviral treatments are used in the prevention of _____ transmission of HIV/AIDS.
- 60. A conclusion that can be made regarding the global response to the AIDS epidemic is that as long as the current _____ gap remains, it will be difficult to reverse the growing trend.

61. Globally, only _____% of the world's population has access to prevention services.

62. Populations of living things are reduced by _____ factors such as disease.

- | | | |
|----------------------|--------------|-------------|
| A. 11 | B. 16 | C. 20 |
| D. density-dependent | E. funding | F. healthy |
| G. mother-to-child | H. outbreaks | I. outlines |
| J. plague-carrying | K. role | L. rodents |

Questions 63–67 :

The following are frequently asked questions about AIDS and responses to them. Match the following responses (63–67) with the appropriate questions (A–G). Two questions will NOT be used. Write the correct letter (A–G) in boxes 63–67 on your answer sheet.

Frequently Asked Questions about AIDS

- A. How do you cure AIDS?
- B. How do you get HIV?
- C. How do you prevent an HIV infection?
- D. How many people are infected?
- E. What are AIDS and HIV?
- F. What do test results mean?
- G. What does AIDS/HIV do?

(Adapted from onestopenglish.com, "Seven Questions about AIDS,"
<http://www.onestopenglish.com/grammar/pdf-content/vocabulary-metaphors/metaphors-aids-worksheet-and-teachers-notes/147516.article>)

63. Acquired Immunodeficiency Syndrome (AIDS) is a set of symptoms that show that a person has become infected by a virus that attacks and damages the body's immune system. AIDS is caused by HIV (the human immunodeficiency virus).

64. You can only become infected if your blood comes into contact with the HIV virus. Blood, semen, vaginal secretions and breast milk can all carry the virus. The three most common ways people become infected are:

1. Having unprotected sex with an infected person;
2. Injecting drugs with a needle that's been used by an infected person;
3. Being born to a mother who is already infected.

You can also get HIV through receiving infected blood (in a blood transfusion for example).

65. A person who is HIV-positive is under siege. HIV batters the body's defenses until diseases which the immune system normally fights off become major threats. These diseases are called "opportunistic diseases" and include pneumonia, meningitis, tuberculosis, and bacterial infections. So, in fact, a person doesn't die of AIDS, they die of one of those other diseases that they have no protection against.

66. At the moment, there is no magic bullet that can treat AIDS. Doctors are unable to wipe out the infection once it has started. However, there are drugs now available which can stop the progress of HIV and allow people with AIDS to live normal lives.

67. Don't have unprotected sex (sex without a condom). If you use drugs, don't share needles. It is possible to win the war against the HIV epidemic, but everyone needs to have good information about preventing infection, along with support from society to help them act on this information.

