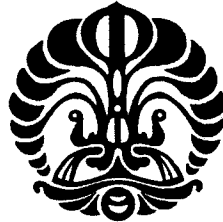


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UJIAN SELEKSI MASUK
UNIVERSITAS INDONESIA

MATERI UJIAN: BAHASA INGGRIS
WAKTU: 90 MENIT

Jangan dibuka dulu.
Tunggu petunjuk.

ENGLISH TEST

General Guidelines

The English Test will test your ability in understanding English structures and reading texts. It employs a multiple choice format, and it takes 90 minutes to do the test.

The test comprises two following parts:

1. Part 1: 40 numbers of Structure and Written Expression
2. Part 2: 50 numbers of Vocabulary and Reading Comprehension

You may choose to begin work on ANY part.

For each number, you may only choose ONE answer. Giving more than one answer will not give you any point for that number.

For each number, you will see four possible answers, marked (A), (B), (C) and (D). Choose one option, and then on your answer sheet, find the number of the question and fill in the space that corresponds to the letter of the answer you have chosen. Fill in the space so that the letter inside the circle cannot be seen.



The questions are given in a variety of difficulty levels. You should try to answer all of them, as there is NO PENALTY for incorrect answers.

Directions for each part of the test will be given at the beginning of each part.

If you find an error in any printed item of the test, just guess the answer as best as you can and continue.

SECTION 1

STRUCTURE AND WRITTEN EXPRESSION

This section is designed to measure your ability to recognize language that is appropriate for standard written English. There are two types of questions in this section, with special directions for each type.

Directions: Questions 1-15 are incomplete sentences. Beneath each sentence you will see four words or phrases, marked (A), (B), (C), and (D). Choose the one word or phrase that best completes the sentence. Then, on your answer sheet, find the number of the question and fill in the space that corresponds to the letter of the answer you have chosen. Fill in the space so that the letter inside the oval cannot be seen.

Example I

.....are found in virtually every country in the world.

- (A) Swamps and marshes which
- (B) When swamps and marshes
- (C) Swamps and marshes
- (D) Now that swamps and marshes

Sample Answer

(A) (B) (C) (D)

The sentence should read, "Swamps and marshes are found in virtually every country in the world." Therefore, you should choose answer (C).

Example II

Milk is pasteurized by heating it for thirty minutes at about 63° Centigrade, rapidly cooling it, and thenit at a temperature below 10° Centigrade.

- (A) to store
- (B) store
- (C) be stored
- (D) storing

Sample Answer

(A) (B) (C) (D)

The sentence should read, "Milk is pasteurized by heating it for thirty minutes at about 63° Centigrade, rapidly cooling it, and then storing it at a temperature below 10° Centigrade." Therefore, you should choose answer (D).

Now begin work on the questions.

1. _____ species of small fish, like sardines, travel together in huge formations to ensure a greater chance of survival when attacked.
 - (A) Of many
 - (B) Many of
 - (C) Of the many
 - (D) Many

2. The aim of _____ the genetic structure of food crops is to produce larger harvests from the same area of land.
 - (A) that we modify
 - (B) modifying
 - (C) modification
 - (D) to modify

3. Half of the world's new cases of polio occur in northern Nigeria where thousands of children _____ .
 - (A) unvaccinated
 - (B) are unvaccinated
 - (C) without vaccination
 - (D) being unvaccinated

4. One of the problems of the supersonic Concorde was the high level of engine noise during take off as well as when flying over the communities that are _____ the airport.
 - (A) near of
 - (B) near with
 - (C) near from
 - (D) near

5. Nations throughout the world _____ such devastating hurricanes, typhoons and floods as in the past two months.
 - (A) have never before experienced
 - (B) that were never before experiencing
 - (C) that never before experienced
 - (D) never before experience

6. Robert E. Peary, a North Pole explorer, made a public statement in 1909 that he had reached the North Pole on April 6, 1907; however, he had neither any records to show for _____ to support his claim.
 - (A) and no witness
 - (B) or a witness
 - (C) if not a witness
 - (D) nor any witness

7. The highest flood tides in one lunar month is the result of the gravitational pull of the Sun and the Moon _____ their position is nearly in line with the Earth.
 - (A) if
 - (B) when
 - (C) where
 - (D) on which

8. Not only _____ reduces migration to crowded cities, but it also stimulates economic security in the country as a whole.
 - (A) consistent development of rural areas
 - (B) rural areas must be developed consistently to
 - (C) that rural areas are consistently developed
 - (D) does consistent development of rural areas

9. Made up of minute forms of marine plant and animal, _____ for everything that lives in the ocean.
 - (A) plankton is the basic foodstuff
 - (B) the basic foodstuff is plankton
 - (C) is plankton the basic foodstuff
 - (D) the basic plankton is foodstuff

10. _____ carbon - dating has been used with great success in determining the age of ancient artifacts, it cannot be used effectively in dating objects older than 80,000 years.
 - (A) Though
 - (B) Because
 - (C) Whether
 - (D) Due to

11. Tsunami waves can travel tremendous distances at a speed of 600 miles an hour without _____ in height and strength.
(A) they lose
(B) lost
(C) any loss
(D) the loss

12. Decades of toxic chemical waste from industrial sites have polluted the water of Lake Tayin China, which _____ for 30 million people.
(A) as the supply of fresh water
(B) a main fresh water supply
(C) supplies fresh water
(D) its fresh water supply

13. Before Hitler began the persecution of Jewish people, a team of outstanding physicists, most of them Jews, _____ advanced atomic research at Gottienggen University.
(A) were doing
(B) made
(C) were making
(D) to do

14. Making instant photographs, the Polaroid SX-70 camera introduced in 1972 _____.
(A) a revolution in photography
(B) to revolutionize photography
(C) revolutionary for photography
(D) revolutionized photography

15. On the northern tip of Sulawesi _____ with its beautiful coral sea gardens.
(A) there is the unspoiled Bunaken island
(B) is the unspoiled Bunaken island
(C) the Bunaken island is unspoiled
(D) the unspoiled island of Bunaken

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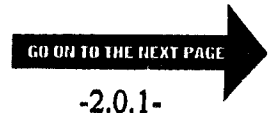
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Directions: In questions 16-40 each sentence has four underlined words or phrases. The four underlined parts of the sentence are marked (A), (B), (C), and (D). Identify the one underlined word or phrase that must be changed in order for the sentence to be grammatically correct. Then, on your answer sheet, find the number of the question and fill in the space that corresponds to the letter of the answer you have chosen.

Example I

Sample Answer

(A) (B) (C) (D)

Meadowlarks are about the same size than robins.

but they have heavier bodies, shorter tails, and

longer bills.

The sentence should read, "Meadowlarks are about the same size as robins, but they have heavier bodies, shorter tails, and longer bills." Therefore, you should choose answer (B).

Example II

Sample Answer

(A) (B) (C) (D)

When overall exports exceed imports, a country said

to have a trade surplus.

The sentence should read, "When overall exports exceed imports, a country is said to have a trade surplus." Therefore, you should choose answer (C).

Now begin work on the questions.

16. The International Olympic Committee has added a few new ski-jumping event to the Olympic Winter Games held in Sochi, Russia, in February 2014.
17. Bali's two volcanoes, Mount Agung and Mount Batur, are an impressive background for the island well-known terraced rice fields and temples.
18. Another problem contributing to the ban on the Supersonic Concorde as a commercial airliner is atmospheric pollution, that it may damage the ozone layer.
19. Considering only as a common weed in the United States, the dandelion is cultivated in other countries to be used for food and medicine.
20. The greatest probability of life on other planet was believed to be found on Mars, but current scientific reports show that this idea is completely unfounded.

GO ON TO THE NEXT PAGE

21. International conservationists are striving to protect the black-and silver lemurs of Madagascar in order to keep this uniquely species of primates from extinction.
22. The Aborigins of Australia, who were living in the dry inland regions where no plant could grow, were greatly dependent for the seeds of grasses for their food.
23. Sensitive to temperature, cut flowers will retain its freshness much longer when kept at the right room temperature, ranging from 15°C to 20°C.
24. Many accidents happening to older people can be prevented by maintaining good health, developing good habits and to promote mental alertness.
25. Treating high blood pressure properly not only reduce the risk of heart disease, but it may also help to prevent cognitive decline.
26. The male broad-tailed humming bird that never takes part in nesting, so that the nest is unguarded when the hen is away to feed.
27. There were several important geological discovery in the early twentieth century that enabled scientists to develop a more accurate picture of the Earth's interior.
28. The soil below the surface of the Arctic tundra remains frozen even in the summer; therefore, it is as hard like rock throughout the year.
29. Initially enjoyable only by the rich, candy became affordable for the general public after the decline of sugar prices, together with the rise of mass production in the late 19th century.
30. That the mice in the rice-fields — the most destructive pest — needed to be eradicated as soon as possible was agreed upon unanimous by the farmers attending the village meeting.
31. Since bitumen, a product of tar sands, is substantially thicker than crude oil, it must be diluted with chemicals to make it flowing through pipes.

32. A noted British nutrition expert pointed out in the 1960s that high amount of sugar in the diet may lead to dangerous levels of fat and insulin in the blood.
33. On-the-spot, alive reports presented by anchormen or anchorwomen on TV make the viewer an eyewitness of the latest news or events from around the world.
34. Some species of dolphins generally reaching the age of 50, but other species live only until the age of 25.
35. The galaxy nearest to planet Earth, known by the name of Andromeda, is a giant spiral galaxy at distance of two million years from our planet.
36. Had the construction of Hambalang not become stagnant, it would have been the most impressive, the largest and the best, modern sports training center in our country.
37. In writing essays, one should not neglect to write sources in footnotes to avoid to be accused of plagiarizing, i.e. illegally copying material.
38. The U.S. Navy operates torpedo-like drones that can submerge under the ocean, and are used among others to scout enemy coastlines, detecting minefields, and target enemy submarines.
39. The number of rhinos killed in 1913 was a lot higher than those in the previous year on account of the escalation in illegal trade of rhino horns used for medicine.
40. Killer bees are said they are dangerously aggressive because they attack humans and animals, which often leads to death.

THIS IS THE END OF SECTION 1

GO ON TO THE NEXT PAGE 

SECTION 2

VOCABULARY AND READING COMPREHENSION

Directions: In this section you will read several passages. Each passage is followed by questions about it. Choose the one best answer, (A), (B), (C), or (D), for each question. Then, on your answer sheet, find the number of the question and fill in the oval that corresponds to the letter of your answer choice. Answer all questions based on what is stated or implied in the passage.

Read the following passage:

A new hearing device is now available for some hearing-impaired people. This device uses a magnet to hold the detachable sound-processing portion in place. Like other aids, it converts sound into vibrations. But it is unique in that it can transmit the vibrations directly to the magnet, and then to the inner ear. This produces a clearer sound. The new device will not help all
Line (5) hearing-impaired people, only those with a hearing loss caused by infection or some other problem in the middle ear. It will probably help no more than 20 percent of all people with hearing problems. Those people, however, who have persistent ear infections should find relief and restored hearing with the new device.

Example I:

What is the author's main purpose?

Sample Answer

- A B C D

- (A) to describe a new cure for ear infections
- (B) to inform the reader of a new device
- (C) to urge doctors to use a new device
- (D) to explain the use of a magnet

The author's main purpose is to inform the reader of a new device for hearing-impaired people. Therefore, you should choose answer (B).

Example II:

The word "relief" in line 7 means

Sample Answer

- A B C D

- (A) less distress
- (B) assistance
- (C) distraction
- (D) relaxation

The phrase "less distress" is similar in meaning to "relief" in this sentence. Therefore, you should choose answer (A).

Now begin with the questions.

GO ON TO THE NEXT PAGE 

Questions 41 - 50

Asian elephants console others who are in distress, using physical touches and vocalizations. The findings are the first empirical evidence of consolation in elephants, says the main researcher Joshua Plotnik, a lecturer in conservation biology at Mahidol University in Thailand. "For centuries, people have observed that elephants seem to be highly intelligent and empathic animals, but as scientists we need to actually test it," he says. Consolation behavior is rare in the animal kingdom, with empirical evidence previously provided only for the great apes, canines and certain corvids. "With *their* strong social bonds, it's not surprising that elephants show concern for others," says co-researcher Frans de Waal, an Emory professor of psychology. "This study demonstrates that elephants get distressed when they see others in distress, reaching out to calm them down, not unlike the way chimpanzees or humans embrace someone who is upset."

The current study focused on a group of 26 captive Asian elephants spread over about 30 acres at an elephant camp in northern Thailand. For nearly a year, the researchers observed and recorded incidents when an elephant displayed a stress reaction, and the responses from other nearby elephants. The initial stress responses came from either unobservable, or obvious, stimuli: events such as a dog walking past, a snake or other potentially dangerous animal rustling the grass, or the presence of another, unfriendly elephant. "When an elephant gets *spooked*, its ears go out, its tail stands erect or curls out, and it may emit a low-frequency rumble, trumpet and roar to signal its distress," Plotnik says. The study found that nearby elephants affiliated significantly more with a distressed individual through directed, physical contact following a stress event than during control periods. As a typical example, a nearby elephant would go to the side of the distressed animal and use its trunk to gently touch its face, or put its trunk in the other animal's mouth.

The gesture of putting their trunks in each other's mouths is almost like an elephant handshake or hug, Plotnik says. "It's a very *vulnerable* position to put yourself in, because you could get bitten. It may be sending a signal of, 'I'm here to help you, not hurt you.'" The responding elephants also showed a tendency to vocalize. "The vocalization I heard most often following a distress event was a high, chirping sound," Plotnik says. "I've never heard that vocalization when elephants are alone. It may be a signal like, 'Shshhh. It's okay,' the sort of sounds a human adult might make to reassure a baby."

In addition, elephants frequently responded to the distress signals of other elephants by adopting a similar body or emotional state, a phenomenon known as "emotional contagion," which may be related to empathy. Groups of nearby elephants also were more likely to bunch together, or make physical contact with each other. As an example of emotional contagion in humans, Plotnik describes a couple watching a movie: "When a character on the screen is scared, the hearts of the couple watching might race and they might move a bit closer and hold each other's hands."

41. The author's main purpose in writing this passage is to
- (A) describe the ways elephants communicate with each other.
 - (B) argue why elephants are intellectual and sociable animals.
 - (C) confirm that elephants are superior to other mammals.
 - (D) reveal that Asian elephants reassure other elephants in distress.
42. The word "*their*" in line 6 refers to
- (A) canines.
 - (B) corvids.
 - (C) elephants.
 - (D) great apes.

43. It can be inferred from the passage that consolation behavior
- might be an exclusive character of certain mammals.
 - always requires both physical touches and soothing sounds.
 - reflects a mediocre level of intelligence and social skills.
 - is an increasingly popular subject among biology researchers.
44. According to the passage, the study
- was conducted by two researchers with the same expertise.
 - focused on Asian elephants living in the wilderness in Thailand.
 - provided the first empirical evidence of consolation in elephants.
 - took more than a year to observe elephants and collect the data.
45. According to the passage, elephants physically comfort distressed elephants by doing the following EXCEPT
- producing a low-frequency sound.
 - approaching the distressed elephants.
 - inserting their trunks in the others' mouths.
 - stroking the distressed elephants' faces with their trunks.
46. The words "spooked" in line 16 could best be replaced by
- agitated.
 - animated.
 - indolent.
 - boisterous.
47. According to the passage, the responding elephants' vocalization
- is a very low frequency rumble.
 - may be sending a clue that they cannot help.
 - occasionally comforts other elephants in distress.
 - never occurs when elephants are unaccompanied.
48. Which of the following best expresses the opposite meaning of the word "vulnerable" in line 23?
- Feeble
 - Invincible
 - Susceptible
 - Permeable
49. The author mentions the similarity between elephants and humans in the following paragraphs EXCEPT
- paragraph 1.
 - paragraph 2.
 - paragraph 3.
 - paragraph 4.
50. The author's attitude toward the study is generally
- dubious.
 - indifferent.
 - appreciative.
 - apprehensive.

Line (5)

(10)

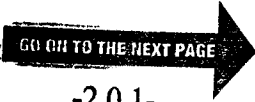
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(A)
(B)
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(D)



Questions 51 - 60

Bones should be jarred, for their own good. Past experiments have definitively established that subjecting bones to abrupt stress prompts *them* to add mass or at least reduces their loss of mass as people age. What has been in dispute, however, is how much force is needed to stimulate bone, and how to apply that force in daily life.

(5) Recently researchers at the University of Bristol gathered male and female adolescents (the body accumulates bone mass rapidly at this time of life) and had them go about their daily routines while they wore activity monitors. The bone density of the volunteers' hips was also measured. A week later, the scientists reclaimed the monitors to check each teenager's exposure to G forces, a measure of impact. Those who experienced impacts of 4.2 G's or greater, though these were infrequent, had notably sturdier hipbones. Additional work done by the same researchers showed that running a 10-minute mile or jumping up onto and down from a box at least 15 inches high was needed to produce forces that great. The significance of these findings is that people should probably run pretty fast or jump high to generate forces great enough to help build bone.

(10) Unfortunately, few older adults are likely to be doing so. In follow-up experiments, the same researchers equipped 20 women older than 60 with activity monitors and ran them through an aerobics class, several brief and increasingly brisk walks and a session of stepping onto and off a foot-high box. None of the women reached the 4-G threshold, none, in fact, generated more than 2.1 G's of force at any point during the various exercises.

(15) The implications are somewhat concerning. Dr. Jon Tobias, a professor of rheumatology at the University of Bristol who led the experiments, says that while impacts that produce fewer than 4 G's of force may help adults maintain bone mass, a possibility that he and his colleagues are exploring in ongoing experiments, it's unclear what level of force below 4 G's is needed. So, Dr. Tobias says, young people and healthy adults should probably *pound* the ground, at least sometimes. Sprint. Jump off a box 15 inches or higher at your gym and jump back up. Hop in place. A study by other researchers published in January found that women between 25 and 50 who hopped at least 10 times twice a day, with 30 seconds between each hop, significantly increased their hipbone density after four months. Another group of subjects, who hopped 20 times daily, showed even greater gains.

(20) Unfortunately, a kind of Catch-22 confronts older individuals who have not been engaging in high-impact exercise: Their bodies and bones may not be capable of handling the types of activity most likely to improve bone health. Dr. Tobias and his colleagues hope to better understand what level of impact will benefit these people. In the meantime, anyone uncertain about the state of his or her bones should consult a physician before undertaking high-impact exercise (a *caveat* that also applies to those with a history of joint problems, including arthritis). For his part, Dr. Tobias says, "I plan to keep running until my joints wear out."

51. The word "*them*" in line 2 refers to
- (A) experiments.
 - (B) bones.
 - (C) people.
 - (D) forces.
52. The topic of this passage is
- (A) accelerating accumulation of bone mass.
 - (B) the danger of neglecting our bones.
 - (C) bone densities in different age groups.
 - (D) stress needed to keep our bones healthy.
53. According to the passage, male and female adolescents
- (A) gain bone mass expeditiously.
 - (B) have stronger hipbones than children.
 - (C) tend to run and jog more than older people.
 - (D) expose themselves to 4.2 G's of force daily.
54. According to the passage, what can be concluded from the recent research conducted at University of Bristol?
- (A) People need to exercise more when they are young to keep healthy.
 - (B) Running and jumping are the only exercise good enough to build our bones.
 - (C) Young people alone are able to experience 4.2 G's of force on a daily basis.
 - (D) High impact exercise is needed to create forces strong enough to build bones.

55. The word "pound" in line 23 could best be replaced by which of the following?
- (A) Excavate
 - (B) Compact
 - (C) Thump
 - (D) Scoop
56. It can be inferred from paragraph four that
- (A) hopping regularly can be beneficial for bone health.
 - (B) regular low-level exercise results in stronger bones.
 - (C) Dr. John Tobias is an expert in sports medicine.
 - (D) women above 50 should hop at least twice a day.
57. According to the passage, what does Dr. Jon Tobias recommend?
- (A) To walk in a leisurely pace daily.
 - (B) To jump from boxes to boxes at the gym.
 - (C) To occasionally place forces in one's bones through exercise.
 - (D) To always pound the ground in order to help build strong muscles.
58. As used in the passage, the word "caveat" in line 32 could best be replaced by which of the following?
- (A) Advice
 - (B) Command
 - (C) Demand
 - (D) Warning
59. According to the passage, older individuals
- (A) who jog regularly are just as active as those who are much younger.
 - (B) who do not care about their bone health tend to lose their bone mass rapidly.
 - (C) are concerned about their bone health, but they put in little effort to keep it.
 - (D) may not be able to handle high-impact exercise unless they are used to doing it.
60. Which of the following is NOT suggested by the passage?
- (A) Women between 25 and 50 need to jump up and down at least 10 times twice daily.
 - (B) Older adults should hop in a place two times a day on a regular basis.
 - (C) Some people may need to thump on the ground to reach 4.0 G's of force.
 - (D) To produce 4.2 G's requires jumps of at least 15 inches up and down.
61. Wh
- (A)
 - (B)
 - (C)
 - (D)

Line
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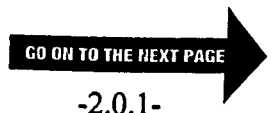
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(B)
(C)
(D)



Questions 61 - 70

It is commonly known that a day lasts 24 hours, which is how long it takes the Earth to rotate once on its axis. What is less well known is that this 24 hour rhythm is much more intrinsic to humans than just the movement of a planet - it is a part of human cells, encoded in human DNA. It turns out that almost every cell, be it bacterial, human, in the skin, liver or brain has its own 24 hour "circadian" rhythm. That is, a proportion of the cell's activities occur in cycles of 24 hours. Recent research estimates that around 10% of human genes are regulated in this circadian manner. This rhythm is unaffected by changes in temperature and is hard-wired in to the genetics of the cell, to the extent that an isolated cell will continue with its circadian oscillation even in the absence of external cues.

In humans and other mammals, in addition to rhythms within individual cells, the whole body circadian rhythm is coordinated by an area of the brain known as the suprachiasmatic nucleus (SCN), which is part of the hypothalamus. The SCN receives input from specialized cells in the eye which detect bright, blue-rich light that is abundant during the day. This is used to set the circadian clock throughout the rest of the body using hormonal and neuronal signals sent to the rest of the tissues. However, the use of a circadian rhythm to anticipate events does not merely extend to the sleep-wake cycle; it dictates the timing of a whole host of essential biological processes, from cell division and neuronal excitability to hormone release and appetite.

There is certainly a great deal of potential for using knowledge of circadian rhythms to inform and aid medical treatment. The application of this knowledge to medical regimes is often referred to as 'chronotherapeutics'. Thus far, the application of chronotherapeutic regimes has been relatively slow in many areas of medicine. This is due, at least in part, to the complexity of drawing up such a regime. Such a large number of activities in cells and whole organisms - including the metabolism, uptake and removal of drugs - are regulated in a circadian manner that devising a regime which optimizes all of these is a significant challenge.

In addition, different people can and do exist in very different phases in the circadian cycle; whilst one person may be at the classical 9am in the circadian cycle at real-time 9am, another might be at 7am or 11am. Therefore, the phase of the chronotherapeutic regime may also have to be shifted to match each patient's circadian cycle. At the current moment in time, there are few clear, definite ways of quickly ascertaining the phase of someone's circadian cycle, which again makes it difficult to optimize a chronotherapeutic regime.

When properly devised, the financial cost of a chronotherapeutic regime is not much (if at all) greater than the cost of current methods, and delivers benefits far greater than this financial increase. This makes chronotherapeutics an attractive avenue for future investigation; it allows for optimization of many existing therapeutic regimes with all of the benefits that this affords. Also, although suggestions that, in the future, medical treatment might be administered with respect to 'chronotype' might be a little optimistic as yet, it is certainly the case that chonotherapeutics certainly should have a growing place in how people treat a wide range of conditions and diseases.

61. Which of the following would most likely be the topic of the entire passage?

- (A) A rhythm intrinsic to humans
- (B) A look at inner metabolism
- (C) An affordable medical regime
- (D) A promising medical treatment

62. The word "it" in line 3 refers to

- (A) human DNA.
- (B) what is less known.
- (C) this 24 hour rhythm.
- (D) the movement of a planet.



63. As used in line 8, the word "oscillation" is closest in meaning to
 (A) resolution.
 (B) cycle.
 (C) manner.
 (D) connection.
64. According to the passage, a circadian rhythm
 (A) does not exist in other mammals.
 (B) is not affected by external events.
 (C) can be easily predicted and controlled.
 (D) regulates more than half of human genes.
65. According to the passage, the overall control of circadian rhythm is effected by
 (A) the central nervous system.
 (B) an area of muscles.
 (C) individual brain cells.
 (D) a section of hypothalamus.
66. Which of the following best expresses the opposite meaning of the word "abundant" in line 13?
 (A) Scarce
 (B) Assorted
 (C) Atypical
 (D) Plenteous
67. According to the passage, which of the following biological processes does NOT involve a circadian rhythm?
 (A) Appetite
 (B) Reproduction
 (C) Hormone release
 (D) Sleep-wake cycle
68. The following words could be used to describe chronotherapeutics EXCEPT
 (A) tricky.
 (B) beneficial.
 (C) promising.
 (D) detrimental.
69. It can be inferred from the passage that chronotherapeutic regimes
 (A) may be good in theory yet complicated in reality.
 (B) have to be optimized through expensive experiments.
 (C) surpass other medical treatment methods in efficiency.
 (D) require approval of medical researchers for their application.
70. The following are questions that the passage tries to answer EXCEPT
 (A) What happens if the circadian rhythm is disrupted?
 (B) How is the circadian rhythm coordinated overall?
 (C) What are the challenges of applying chronotherapeutic regimes?
 (D) How can knowledge of circadian rhythms help cure diseases?

Link
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 (10)
 (15)
 (20)
 (25)
 (30)
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 (40)
 71.



Questions 71 - 80

We know why education is good for individuals. The promises of college graduation range from the poetic (intellectual stimulation and love of learning) to utilitarian (increased earning and power potential), but everyone seems to know that educated individuals stand to gain something. What we do not really know is why education is so good for societies. Sure, politicians regularly wax poetic about the collective benefits of education—most often the economic ones—but the complex connections are left out. The strongest relationship remains obscure: More educated countries consistently have better governments, on any number of ratings.

Line

(5)

Compared to the clear outcomes that schooling endows on pupils—like literacy or basic arithmetic—how governments and countries benefit from an educated populace is less transparent. One popular idea is that educated citizens are better voters—and a more engaged voting population would make government more accountable. Be that as it may, there is a crucial issue: The relationship between education and government persists outside of democracies. For example, countries like Qatar (monarchy) and Slovakia (democracy) have similar levels of education and government ratings, but very different systems. There must be another reason more educated societies make more accountable government.

(10)

(15)

A new paper, "Education, Complaints, and Accountability," published last week in the *Journal of Law and Economics* suggests one possible mechanism: the power of complaining. The authors, Juan Botero and Alejandro Ponce of the World Justice Project and Andrei Shleifer of Harvard University, conclude that "educated citizens complain more." And complaining gets results: "These complaints lead to better conduct by officials fearful of being punished, which in turn leads to greater accountability and a higher quality government." The study finds that individuals with higher educational attainment are significantly more likely to lodge complaints against their government, about general services, police abuse, and corruption. "Educated people might merely know better how to complain effectively," they suggest. "They are more literate, more articulate, and more knowledgeable about where to go and how to complain." Moreover, those with high levels of education tend to have less fear of the police, perhaps because "they know the law and the rules and hence can stand up to officials." Though the authors are careful to note that their evidence can't necessarily prove causation, the logic does make sense.

(20)

(25)

Assuming the links between education, complaints, and accountability have at least some strength, there's a lot at stake. For developing countries, and for international funders of those countries, prioritizing education might make sense in order to combat issues of corruption or government misconduct. These countries might simultaneously reap the benefits individuals receive from education (work readiness, etc), in addition to adding citizen oversight to government institutions, all through one investment. For developed countries, this finding might go some way to explaining structural inequalities, particularly around cities. What if complaints partially explain why Chicago's educated and wealthier white suburbs, for example, have better infrastructure than its predominantly black, less-educated, and low-income South Side? Are education and complaints the reasons why *gentrifying* areas physically improve? It's at least something to investigate.

(30)

(35)

For all countries, the possibility of actually teaching complaints should come to the fore. The effect of education on complaining is, at best, a side effect of curriculum itself. Societies that seek better government might do well to invest in civics classes that teach youth how to advocate for themselves and their community.

(40)

71. According to paragraph one, education is important because of the reasons below, EXCEPT

- (A) It challenges our mind.
- (B) It makes us look more intelligent.
- (C) It develops passions for learning.
- (D) It helps us gain wealth and power.

72. It can be inferred from paragraph two that

- (A) Democracy does not guarantee good governance.

- (B) Good education equals a good and accountable government.
- (C) Qatar and Slovakia have comparable systems of government.
- (D) It is still unclear how educated populations benefit societies.

73. The word "which" in line 20 refers to
- (A) these complaints.
 - (B) better conduct by officials.
 - (C) fear of being punished.
 - (D) better accountability and government.
74. According to paragraph three, educated people
- (A) understand the law, and therefore they are able to become good lawyers.
 - (B) understand the law, literature and politics better than law enforcement officials.
 - (C) are more inclined to complain about poor government officials' performance.
 - (D) are more timid than less educated people when facing law enforcement officials.
75. According to the passage, which of the following is NOT TRUE about complaints?
- (A) Good education causes people to complain more, leading to good governance.
 - (B) Complaints are usually filed more effectively by well educated people.
 - (C) Complaining gets things done as it makes officials pay attention.
 - (D) Complaints help government officials to perform their jobs better.
76. The word "gentrifying" in line 37 can best be defined as
- (A) improving a neighborhood to make it more appealing to wealthy people.
 - (B) shifting the feel of a neighborhood to welcome more senior people.
 - (C) improving public facilities in a neighborhood as part of good governance.
 - (D) setting up better public schools to help improve the quality of education.
77. With which of the following statements would the author probably agree?
- (A) The importance of education lies in its practical purposes.
 - (B) Well educated people are generally more affluent than less educated individuals.
 - (C) People who understand rules and regulations feel less intimidated by officials.
 - (D) Teaching complaints in class will lead to resistance against enforcing authorities.
78. According to the passage, developing countries
- (A) can obtain direct multiple benefits from good education.
 - (B) remain poor despite having successive good governments.
 - (C) will never succeed in eradicating poverty and corruption.
 - (D) have always provided excellent education for their citizens.
79. Which of the following would most likely be the main topic of the last paragraph?
- (A) The importance of teaching complaints
 - (B) Civics classes as part of a curriculum
 - (C) Government officials' formal education
 - (D) Ways to establish better government
80. The author's purpose in writing this passage is to
- (A) argue for improvement in the quality of education in developing countries.
 - (B) suggest connections between education, complaints and better government.
 - (C) describe the qualities that every good government should have.
 - (D) persuade governments to include complaints in their civics classes.

Questions 81 - 90

We intuitively understand, and scientific studies confirm, that if a woman experiences stress during her pregnancy, it can affect the health of her baby. But what about stress that a woman experiences before getting pregnant, perhaps long before? It may seem unlikely that the effects of such stress could be directly transmitted to the child. After all, stress experienced before pregnancy is not part of a mother's DNA, nor does it overlap with the nine months of foetal development.

Nonetheless, it is undeniable that stress experienced during a person's lifetime is often correlated with stress-related problems in that person's offspring, and even in the offspring's offspring. Perhaps the best-studied example is that of the children and grandchildren of Holocaust survivors. Research shows that survivors' children have greater-than-average chances of having stress-related psychiatric illnesses like post-traumatic stress disorder, even without being exposed to higher levels of stress in their own lives. Similar correlations are found in other populations. Studies suggest that genocides in Rwanda, Nigeria, Cambodia, Armenia and the former Yugoslavia have brought about distinct psychopathological symptoms in the offspring of survivors.

What explains this pattern? Does trauma lead to suboptimal parenting, which leads to abnormal behavior in children, which later affects their own parenting style? Or can you biologically inherit the effects of your parents' stress, after all? It may be the latter. In a study that Inna Gaisler-Salomon, Hiba Zaidan and Micah Leshem, recently published in the journal *Biological Psychiatry*, they found that a relatively mild form of stress in female rats, before pregnancy, affected their offspring in a way that appeared to be unrelated to parental care. When rats or mice are put under duress, particularly during early development, their second and third generation offspring exhibit behavioral irregularities. Studies have shown that stress to male mice, which are minimally involved in their offspring's care, also affects their offspring's behavior, suggesting that "parenting style" is not the issue.

For their study, Gaisler-Salomon, Zaidan and Leshem looked at adolescent female rats that went through a mild stress procedure for seven days. Two weeks later, these rats and their non-stressed controls were mated with non-stressed male rats. The study confirmed that there were indeed behavioral differences between the adult progeny of stressed and non-stressed females, particularly in tests of emotional and exploratory behavior. They focused on a gene that encodes a molecule involved in the body's response to stress to find out how this stress effect transmitted. Unsurprisingly, they detected larger amounts of the molecular product of this gene in the brains of the previously stressed female rats than in the non-stressed controls. But they also found that this molecular product was present in the ova, or eggs, of the stressed females in significantly increased concentrations.

Traditionally, scientists have understood that the ova transfer only genetic information (that is, DNA) from parent to child. But their hunch was that the ova were also transferring "soft-wired" information—specifically, information about the stress experience—by way of the molecule coded by the gene. And indeed, they found that at birth, the offspring of stressed female rats already had more of this same molecular product in their brains than did the offspring of controls. This suggested that they may have "inherited" the effect of their mothers' stress.

An additional and unexpected finding of our research was that the expression of the gene in adult offspring did not depend on maternal stress alone, but was also influenced by the stress the offspring themselves experienced. It also differed between males and females. Their findings suggest that some stress-related changes in newborn rats are unrelated to maternal care. The emerging field of epigenetics, which attempts to understand how information not coded by the DNA sequence is inherited, may be able to explain exactly how this happens.

81. According to the passage, the descendants of Holocaust survivors
- (A) are prone to develop psychiatric conditions related to stress.
 - (B) are less likely to have post-traumatic stress disorder than other people.
 - (C) are more likely to face difficulties in life due to their racial background.
 - (D) develop post-traumatic stress disorder only in highly stressful situations.
82. The word "offspring" in line 7 could best be replaced by which other word in the same paragraph?
- (A) Populations
 - (B) Children
 - (C) Illnesses
 - (D) Survivors

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83. Why does the author mention Rwanda, Nigeria, Cambodia, Armenia and the former Yugoslavia in paragraph two?
- (A) To give illustrations of populations that had endured stressful situations.
 - (B) To provide further examples of societies that underwent mass slaughters.
 - (C) To support an argument about the effects of holocaust in different regions.
 - (D) To discuss different types of stress disorders that genocide survivors developed.
84. The word "which" in line 21 refers to
- (A) studies.
 - (B) stress.
 - (C) male mice.
 - (D) offspring's care.
85. According to the passage, what is NOT TRUE about stress?
- (A) It may be passed onto the second and third generations.
 - (B) It can affect the health of a baby during pregnancy.
 - (C) It is attributable to unhealthy and abusive parenting.
 - (D) It has been the subject of numerous scientific studies.
86. According to the passage, the study conducted by Gaisler-Salomon, Zaidan and Leshem
- (A) only used mature female rats as its subjects.
 - (B) used female rats exposed to stress before birth.
 - (C) was printed in a magazine dealing with Psychology.
 - (D) used non-stressed rats as its control group.
87. The word "hunch" in line 33 could best be replaced by which of the following?
- (A) Intuition
 - (B) Proof
 - (C) Prediction
 - (D) Assessment
88. What can be inferred from the last paragraph?
- (A) Stress is not gender-specific: both males and females are affected in the same way.
 - (B) There is a direct correlation between stress and maternal care in newborn rats.
 - (C) Epigenetics may be able to explain more satisfyingly how stress is inherited.
 - (D) Maternal stress is most crucial in determining adult rats' ability to deal with stress.
89. Where in the passage does the author discuss the effect of stress in male mice on their descendants' behavior?
- (A) Paragraph 2
 - (B) Paragraph 3
 - (C) Paragraph 4
 - (D) Paragraph 5
90. With which of the following statements would the author probably agree?
- (A) Molecular products carrying the genes which shape the body's response to stress reside in the brain.
 - (B) The molecules found in the ova gave the researchers an inkling that stress may be inherited.
 - (C) It is yet to be confirmed whether the ova carry DNA that can be transmitted from parent to child.
 - (D) The study shows no significant behavioural difference between the progeny of stressed and non-stressed rats.