

A

İNGİLİZCE

ÜDS İNG. FEN BİL. / MART 2008

1. – 18. sorularda, cümlede boş bırakılan yerlere uygun düşen sözcük ya da ifadeyi bulunuz.

1. Throughout history, many ---- in engineering and science have come about as the result of the development of weapons.

- A) applications B) resolutions
C) representations D) innovations
E) amplifications

2. Because of the time needed to develop expertise, scientists tend to continue working in a single area for a ---- length of time, perhaps even throughout their lives.

- A) substantial B) thorough
C) moderate D) qualitative
E) comprehensive

3. Although the red flames of lithium and strontium appear similar, the light from each can be separated by means of a prism into ---- different colours.

- A) excessively B) distinctly
C) conventionally D) properly
E) familiarly

4. The continents ---- their existence to Earth's long history of plate-tectonic activity.

- A) endanger B) result C) proceed
D) compile E) owe

5. For decades, scientists have theorized that much of the universe is ---- nearly undetectable dark matter and dark energy.

- A) made up of B) taken over by
C) lost in D) held on
E) broken away from

6. Exploring the human genome for clues to human evolution and migration is something of a battlefield, and the ground rules of this new science are still being ----.

- A) worked at B) worked out
C) worked through D) worked back
E) worked for

7. Geology and biology ---- since life ----.

- A) are intertwined / has begun
B) were intertwined / had begun
C) have been intertwined / began
D) would be intertwined / begins
E) could be intertwined / will begin

8. ---- missing heat-shield tiles or a failed undercarriage door have allowed the airframe ----?

- A) Could / to melt
B) Would / melt
C) Might / to be melting
D) Can / melting
E) Will / be melting

Diğer sayfaya geçiniz.

A

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9. In April 1953, Watson and Crick ---- the scientific world with a succinct paper ---- their model for DNA.
- A) were shaking / to explain
B) had been shaking / to have explained
C) have shaken / to be explaining
D) shook / explaining
E) had shaken / having explained
10. Common fungicides ---- for the puzzlingly high levels of DDT still found in some soils, even in regions where this potent insecticide ---- decades ago.
- A) are blamed / would have been banned
B) could be to blame / was banned
C) were blamed / must be banned
D) might be blamed / would be banned
E) are to blame / has been banned
11. Rockets ---- to have originated with the Chinese before the thirteenth century, which is when they ---- to appear in Europe.
- A) may be believed / were beginning
B) could be believed / have begun
C) were believed / had begun
D) have been believed / could begin
E) are believed / began
12. Gregor Mendel probably chose to study garden peas because he was familiar with them ---- his rural upbringing; they were easy to grow, and they came ---- many readily distinguishable varieties.
- A) from / in B) at / for C) with / on
D) in / by E) on / over
13. Sunspots, a barometer ---- solar activity in general, seem to have been unusually numerous ---- the last century.
- A) for / at B) of / over C) within / by
D) for / about E) above / from
14. Fish often spend much of their time in the deep, cool waters of a lake ---- oxygen levels there become depleted by decomposers.
- A) as if B) just as
C) now that D) unless
E) so as
15. In 2002, ---- Australia's Great Barrier Reef was hit hard by unseasonable warming, 95 per cent of its coral was adversely affected.
- A) so that B) if
C) when D) so long as
E) in case
16. ---- a violent storm is over, it leaves a cooler ocean behind, lowering the likelihood that more storms will flare up, at least not immediately.
- A) Once B) Even so
C) Even if D) Since
E) While
17. Humans, like all warm-blooded animals, can keep their core body temperatures pretty much constant ---- differences in the temperature in the world around them.
- A) as of B) regardless of
C) instead of D) in terms of
E) because of
18. The part of an animal ---- gases are exchanged with the environment is called the *respiratory surface*.
- A) how B) which C) whatever
D) what E) where

Diğer sayfaya geçiniz.

19. – 23. sorularda, aşağıdaki parçada numaralanmış yerlere uygun düşen sözcük ya da ifadeyi bulunuz.

Small planes should be safe enough for normal, non-risk-taking people to trust their lives to them. NASA wants (19) ---- the accident rate by 90 per cent within twenty-five years. The planes should become fast enough for their effective speed to be at least three times (20) ---- great as that of cars on the highway. The existing small-plane fleet averages 150 knots; that should be raised to 300 knots within a decade, and eventually to 450 knots, (21) ---- small planes could compete with the jetliners' speed. The planes should be more efficient and environmentally safer, using less fuel, creating less pollution, and generating less noise. They should be more (22) ---- in their operations and far simpler to fly, much like cars that vary little from one rental site to another. And they should be radically more reliable and cheaper to maintain – following the example of automobiles, with their quality revolution (23) ---- the 1980s and 1990s.

19.

- A) to have reduced B) reducing
C) having reduced D) to reduce
E) to have been reducing

20.

- A) as B) such C) much
D) so E) more

21.

- A) if only B) in that
C) so that D) by which
E) as if

22.

- A) tentative B) consistent
C) deliberate D) reluctant
E) recurrent

23.

- A) at B) for C) about
D) of E) with

24. – 35. sorularda, verilen cümleyi uygun şekilde tamamlayan ifadeyi bulunuz.

24. Despite the fact that no one has ever seen it happen, ----.

- A) there is evidence to suggest that rocks of up to 320 kilograms are moved by the wind across the floor of Death Valley in California
B) the Grandstand is a 20-metre-high island of rock that looks like the top of a mountain buried in a sea of sediment
C) most of southeastern California is a region torn by earthquakes and eroded by wind and rain
D) Death Valley lies 86 metres below sea level and is surrounded by peaks of more than 3,000 metres
E) Death Valley was formed as the Amargosa and Panamint mountain ranges were pulled apart from each other

25. As the Hubble Space Telescope continues its mission, ----.

- A) Edwin Hubble encouraged this idea in connection with his own research
B) Eta Carinae is one of the most massive stars known in the Milky Way, and is thought to be on the verge of becoming a gigantic supernova
C) millions of people have already learned a great deal about the solar system
D) we tend to think of science in terms of great minds coming up with great ideas
E) it sends home new revelations about the life and death of stars and the nature of our expanding universe

26. When the first transistor amplifiers came along, ----.

- A) there were a number of design deficiencies
B) the engineers identified these problems and fixed them
C) people would have been astonished by the magic of it all
D) Shockley, Bardeen and Brattain developed the transistor in 1947 and 1948
E) the extent of their achievements will never be appreciated

Diğer sayfaya geçiniz.

27. As soon as scientists realized the power of DNA technology, ----.

- A) early concerns focused on the possibility that they might create new pathogens
- B) the Human Genome Project has yielded many other unexpected results
- C) they claim that these proteins could be tested for their ability to cause allergic reactions
- D) they began to worry about its potential dangers
- E) one safety measure is a set of strict laboratory procedures designed to protect researchers from infection

28. Although geologists tended to dismiss the attempt of the physicist Kelvin to estimate the age of Earth as being too simplistic, ----.

- A) the theory of continental drift might have been accepted decades earlier
- B) early nineteenth-century geologists largely accepted that Earth was of unlimited age
- C) many people believe that his calculation failed through his ignorance of radioactivity
- D) Kelvin began writing on this subject when he was 16
- E) the model he used has in fact proved very useful in geology

29. Since albatross have the longest wings in nature, ----.

- A) their populations had already begun to decline
- B) they came ashore far more frequently
- C) they can glide for hundreds of kilometres without flapping their wings
- D) from time to time they went in search of new breeding grounds
- E) most pairs mate for life, producing and raising one chick every two years

30. Fullerenes are carbon molecules ----.

- A) that the simplest fullerene molecule, C₆₀, has a soccer-ball shape
- B) whose shapes are made up of pentagons and hexagons that meet three at a time, in such a way that no two pentagons are adjacent
- C) whereas, mathematically, the combinatorics of fullerenes is an application of Euler's formula
- D) although other fullerenes, such as C₈₀, have been made in the laboratory
- E) while every fullerene contains exactly 12 pentagons with no limit to the number of hexagons it contains

31. Twenty years have passed since the accident at Chernobyl ----.

- A) when many of the studies have been showing an elevated rate of mutations among the animals in the area
- B) so that scientists studying the effects find themselves in unpopular positions
- C) wherever policy makers want concrete conclusions and results, not probability estimates on the dangers of radiation exposure
- D) because many public servants do not share the scientists' enthusiasm for the scientific process
- E) but the extent to which people and the environment have been harmed is still being hotly debated

32. Geologists note that coal is similar to tar ----.

- A) as we might expect coal to last another 200 years
- B) unless environmental issues may limit how much of this resource is exploited
- C) in that both are relatively difficult to mine without dangerous environmental consequences
- D) because the world is using these energy sources so inefficiently at the moment
- E) while tar is also formed by tobacco burning

33. Practically all the problems associated with the musculo-skeletal and body-fluid systems could be alleviated or avoided in space ships ----.

- A) if artificial gravity similar to that on Earth could be provided
- B) as current countermeasures are limited to the use of exercise equipment
- C) since technological progress might have solved this problem
- D) before further complications had developed
- E) although the spaceship could be linearly accelerated in the desired direction

34. The Mariner 10 space probe determined ----.

- A) since planetary scientists have speculated about Mercury's magnetic field
- B) that Mercury, unlike Venus and Mars, has a significant magnetic field
- C) while there is no way to judge whether iron on Mercury is solid or liquid
- D) until the new project uses radar reflections to determine subtle oscillations in Mercury's rotation rate
- E) which presumably creates a strong magnetic field

35. One of the most important aspects of our planet's evolution is the formation of the atmosphere, ----.

- A) if continents and oceans, encircled by an oxygen-rich atmosphere, support familiar life forms
- B) although such constant change has characterized Earth since its beginning some 4.5 billion years ago
- C) whether understanding the carbon dioxide content of the early atmosphere is crucial for understanding climatic control
- D) because it is this assemblage of gases that allowed life to come out of the oceans and to be sustained
- E) as continental shift has been altering the face of Earth for nearly a billion years

36. – 38. sorularda, verilen İngilizce cümleye anlamca en yakın Türkçe cümleyi bulunuz.

36. In North America, the electrical grid has evolved in piecemeal fashion over the past 100 years.

- A) Kuzey Amerika'daki mevcut elektrik şebekesi, geçen 100 yıl boyunca aşama aşama oluşturulmuştur.
- B) Kuzey Amerika'daki elektrik şebekesi, geride kalan 100 yıl boyunca parça parça ancak kurulabilmiştir.
- C) Kuzey Amerika'da, elektrik şebekesi, geçen 100 yıl içinde düzensiz bir şekilde gelişmiştir.
- D) Kuzey Amerika'daki elektrik şebekesinin bir bölümü, geçen 100 yıl içinde geliştirilmiştir.
- E) Kuzey Amerika elektrik şebekesinin adım adım gelişmesi, geçen 100 yıl içinde gerçekleşmiştir.

37. Global competition regarding limited petroleum and natural gas resources is intense, and even a mild production shortage can send prices skyrocketing, as we have been seeing for some time.

- A) Sınırlı petrol ve doğal gaz kaynakları konusunda küresel rekabet yoğunudur ve, bir süredir gördüğümüz gibi, hafif bir üretim açığı bile fiyatları birden yükseltebilir.
- B) Petrol ve doğal gaz kaynakları sınırlı olduğu için küresel rekabet oldukça yoğunudur ve üretimde en ufak bir azalma, son zamanlarda görüldüğü gibi, fiyatları fırlatmaktadır.
- C) Sınırlı olan petrol ve doğal gaz kaynaklarına yönelik küresel rekabet o denli yoğunudur ki, yakın zamandan beri gözlemlediğimiz gibi, en küçük bir üretim açığı bile fiyatları birden yükseltmektedir.
- D) Küresel rekabetin yoğun olduğu petrol ve doğal gaz kaynakları oldukça sınırlıdır ve, bir süredir görüldüğü gibi, üretimde oluşan en küçük bir kıtlama bile fiyatları oldukça yükseğe çekmektedir.
- E) Sınırlı petrol ve doğal gaz kaynakları konusundaki yoğun küresel rekabet nedeniyle, bir süredir gördüğümüz gibi, üretimin hafif de olsa düşmesi sonucu fiyatlar alabildiğine yükselmektedir.

Diğer sayfaya geçiniz.

38. Until recently, there was no reliable method to measure the age of dinosaurs, and thus, to figure out the conditions in which they grew.

- A) Son yıllara kadar kullandığımız hiçbir yöntem dinozorların yaşını ölçmek ve büyüdüğü koşulları ortaya koymak için güvenilir değildi.
- B) Dinozorların yaşını ölçmek ve dolayısıyla büyüdüğü koşulları ortaya koymak için bugüne kadar hiçbir güvenilir yöntem bulamadık.
- C) Yıllardan beri, dinozorların yaşını ölçmeye ve böylelikle nasıl büyüdüğüni belirlemeye yönelik herhangi bir yöntem bulamadık.
- D) Uzun zamandan beri, dinozorların yaşını ölçerek büyüdüğü koşulları kesin olarak belirlemede kullanılabilecek herhangi bir yöntemimiz yoktu.
- E) Son zamanlara kadar, dinozorların yaşını ölçmek ve böylece büyüdüğü koşulları anlamak için güvenilir bir yöntem yoktu.

39. – 41. sorularda, verilen Türkçe cümleye anlamca en yakın İngilizce cümleyi bulunuz.

39. Darwinizme göre, mümkün olduğunca sık üremek, her canlının temel amacıdır.

- A) Darwinism upholds the view that every organism always strives to reproduce so long as it is possible.
- B) According to Darwinism, frequent reproduction is what every organism has as a major aim.
- C) As one infers from Darwinism, for every organism, the essential goal is to reproduce so far as possible.
- D) According to Darwinism, it is the basic goal of every organism to reproduce as often as possible.
- E) With reference to Darwinism, it is to be stated that reproduction is what every organism has as its ultimate aim.

40. Kozmik ışınlar, aslında, atmosferin tepesine hemen hemen ışık hızına yakın bir hızda çarpan ve çoğunlukla güneş sisteminin ötesinden gelen iyonlardır.

- A) Cosmic rays, usually called ions, come from across the solar system, hitting the outer layers of the atmosphere at a speed close to that of light.
- B) The fact is that cosmic rays, also called ions, come from the other end of the solar system and constantly hit the top of the atmosphere at the full speed of light.
- C) Cosmic rays are in fact ions that strike the top of the atmosphere at nearly the speed of light and mostly come from beyond the solar system.
- D) It is true that cosmic rays are ions which cut across the solar system and strike the upper layer of the atmosphere at about the speed of light.
- E) What we call ions are in fact cosmic rays that, coming from the depths of the solar system, strike the upper parts of the atmosphere at exactly the speed of light.

41. Leibniz, bilgisayar programının icadından 250 yıl önce yaşamış olmasına rağmen, modern algoritmik bilgi düşüncesine çok yaklaştı.

- A) Although Leibniz lived 250 years before the invention of the computer programme, he came very close to the modern idea of algorithmic information.
- B) Leibniz, who lived some 250 years before the introduction of the computer programme, was in fact fully familiar with the idea of modern algorithmic information.
- C) It was just 250 years before the development of the computer programme that Leibniz lived and put forward the modern idea of algorithmic information.
- D) Living 250 years before the launching of the computer programme, Leibniz had a notion of modern algorithmic information.
- E) Even though the computer programme was invented 250 years after Leibniz, he was actually aware of the idea underlying modern algorithmic information.

42. – 46. sorularda, boş bırakılan yere, parçada anlam bütünlüğünü sağlamak için getirilebilecek cümleyi bulunuz.

42. Carbon nanotubes have been hailed as a semiconducting wonder ingredient that will make materials stronger. ----. Moreover, their ability to act as filters might one day be exploited to build artificial livers.
- A) In the molecules of a polar liquid, some atoms are slightly positively charged while others carry a balancing negative charge
- B) Some experts in nanotube chemistry have published extensively
- C) Accordingly, it is possible to make nanotubes generate electricity
- D) Thus, their importance has been greatly overrated
- E) In addition, they will help miniaturize electronics systems
43. Locomotion can be considered to be a flow of mass from one location to another. ----. They seek and find paths and rhythms that allow them to move their mass the greatest distance per expenditure of useful energy while minimizing thermodynamic imperfections such as friction.
- A) All of these designs allow for the maximum transfer of material with the least amount of resistance
- B) A flow is an equilibrium of areas with high and low resistivities
- C) Animals move on the surface of Earth in the same way as rivers, winds and oceanic currents
- D) A river basin configures and reconfigures itself so that the water is discharged with the least resistance through the mouth of the river
- E) One of the basic goals of any design – whether it's an animal or a machine – is to get maximum output for minimum energy
44. Only a few large meteorites have struck the earth. The largest we know about fell in Arizona and made what is now called Meteor Crater, a hole about a mile across and 600 feet deep. ----. Other big meteorites fell in ancient times, in Texas, in Argentina, in northern Siberia and in Greenland.
- A) When a meteor reaches the earth, it is called a meteorite
- B) This big meteorite may have fallen as much as twenty-five thousand years ago
- C) The amazing thing about these meteor showers is that they come year after year
- D) Most meteors are small, probably a few inches in diameter
- E) The most remarkable meteor shower was seen in Connecticut on the night of November 12, 1833
45. Although a soccer ball can be put together in many ways, there is one design so ubiquitous that it has become iconic. This standard soccer ball is glued together from 32 polygons, 12 of them five-sided and 20 six-sided, arranged in such a way that every pentagon (five-sided) is surrounded by hexagons (six-sided). ----. This colour scheme was introduced for the World Cup in 1970 to enhance the visibility of the ball on television, although the design itself is older.
- A) 12 pentagons and 20 hexagons form a figure known to mathematicians as a "truncated icosahedron"
- B) To a mathematician, the iconic black and white soccer ball is an intriguing puzzle
- C) A number of questions can be tackled about the arrangement of pentagons and hexagons using the language of mathematics
- D) The usual way to colour such a ball is to paint the pentagons black and the hexagons white
- E) Every soccer ball contains at least 12 pentagons, but may well contain more

46. This year researchers from some 60 nations are participating in the International Polar Year, an intensive burst of interdisciplinary research focusing on the polar regions. ----. For instance, water from the melting ice sheet is flowing into the North Atlantic much faster than scientists had previously thought possible.

- A) Greenland, especially, has become a kind of barometer for the rest of the world because of its sensitivity to climate changes
- B) Climatologists have found that the best places to study global warming are the coldest regions on Earth
- C) Thus far, the data the researchers have seen has been alarming
- D) A glacier that accelerates with a warming atmosphere is within the realm of scientific expectation
- E) Arctic climatologist Konrad Steffen has spent 18 consecutive springs on the Greenland ice cap, personally building and installing the weather stations

47. – 51. sorularda, karşılıklı konuşmanın boş bırakılan kısmını tamamlayabilecek ifadeyi bulunuz.

47. Angela :
- How was your visit to Crater Lake National Park last summer?

Sharon :
- It was wonderful. The lake is very beautiful, with a clear, deep-blue colour. And I learned something new about it: it's a closed basin lake.

Angela :
- ----

Sharon :
- Well, there are no permanent streams that enter or exit the lake.

- A) I plan to visit the lake this summer.
- B) How did you learn that?
- C) You're very informed, aren't you?
- D) What does that mean?
- E) How many visitors are allowed into the park each year?

48. Ken :
- Do you know? I'm really getting very interested in the movement of glaciers.

Sherrie :
- What have you learned now?

Ken :
- ----

Sherrie :
- That's right; the ice moves out to the sides because of the greater weight and pressure at the centre.

- A) That when glaciers move, they don't only move straight downhill.
- B) Well, some glaciers flow into the sea, but others end on land.
- C) Glaciers store about 75% of the world's freshwater.
- D) I found out that where an ice sheet flows into the ocean and floats, it forms an ice shelf.
- E) Ice sheets flowing over land usually form piles of rocks and dirt at their ending points.

49. Michelle :
- It says in this article that Jupiter's moon Europa has relatively few craters on it – only one or two significant ones.

Kathy :
- I wonder why it has so few, when some of Jupiter's other moons and our own moon have so many.

Michelle :
- ----

Kathy :
- Oh, yes, I've read about that. It has to do with tides changing the surface features, doesn't it?

- A) The article says that it would be surprising if the tides weren't still active.
- B) Scientists think that the surface has been completely re-made in the cosmically recent past.
- C) The continuously changing surface would create organisms, if there are any, that could adapt easily to the changes.
- D) Since there are many tiny bodies in the outer solar system, they would normally have hit Europa, forming craters.
- E) The weak ice on Europa's surface cannot support high mountains.

Diğer sayfaya geçiniz.

50. Ann :

- **Did you know that the use of graph paper for plotting functions and data was first made common by Professor John Perry, when he was still an assistant of the famous physicist Lord Kelvin?**

Jane :

- **No, I didn't. How did he make it available to the public?**

Ann :

- ----

Jane :

- **Well, that's really something.**

- A) He was a tireless educator in engineering and mathematics.
- B) He challenged Lord Kelvin's hypothesis about the temperature of the Earth.
- C) Perry came up with the idea that heat moved more easily deep inside the Earth than it does close to the surface.
- D) Perry insisted that mathematics was basic to all the sciences.
- E) Simply, it was because of him that the price of graph paper became affordable for everybody.

51. Peter :

- **It seems that higher sea-surface temperatures could give rise to ever larger and more frequent hurricanes.**

Frank :

- ----

Peter :

- **True. What do you think is going to happen?**

Frank :

- **Let's just wait and see!**

- A) At present, it is all pure speculation. Let's change the subject.
- B) Why have you become so interested in global warming?
- C) But which parts of the globe would be affected?
- D) Yes; I'm familiar with that theory. But there are opposing theories too.
- E) Hurricanes will certainly increase in number and severity.

52. – 56. sorularda, cümleler sırasıyla okunduğunda parçanın anlam bütünlüğünü bozan cümleyi bulunuz.

52. (I) In science fiction, the worst threats to space travellers are large ones: asteroids, ravenous creatures, and imperial battle cruisers. (II) The journey time from Earth to Mars could be reduced from six months to less than six weeks. (III) In reality, though, the scariest menaces for humans in space are the tiniest: fast-moving elementary particles known as cosmic rays. (IV) On a long journey, these would give astronauts a dose of radiation serious enough to cause cancer. (V) Unlike most of the other challenges of venturing into deep space, which engineers should be able to solve, cosmic rays pose irreducible risks.

- A) I B) II C) III D) IV E) V

53. (I) A dramatic cut in the cost of a super-efficient new breed of solar cell could put domestic solar power on a more economic footing. (II) The cells, which helped take NASA's electric-powered aircraft Helios to record altitudes, have until now been too expensive. (III) But their manufacturer has found a way to make them as much as 20 times cheaper. (IV) The cells convert light energy into electricity with an efficiency of 20 per cent – which means they generate one-third more electrical power than conventional silicon solar cells. (V) NASA's electrically powered plane Helios soared to altitudes above 96,000 feet (29 kilometres) – a world record for a winged plane not powered by a rocket engine.

- A) I B) II C) III D) IV E) V

54. (I) Our knowledge of cell structure took a giant leap forward as biologists began using the electron microscope in the 1950s. (II) Instead of light, the electron microscope (EM) uses a beam of electrons. (III) Actually, specimens should have been cut into extremely thin sections and stained with atoms of heavy metals such as gold. (IV) The EM has a much greater resolution than the light microscope. (V) Under special conditions, the most powerful EMs can detect individual atoms.

- A) I B) II C) III D) IV E) V

Diğer sayfaya geçiniz.

55. (I) Early in the 20th century, oranges and grapefruits were ripened for market in sheds equipped with kerosene stoves. (II) Before leaves fall, many of their essential elements are stored in the stem. (III) Fruit growers thought it was the heat that ripened the fruit, but when they tried newer, cleaner-burning stoves, the fruit did not ripen fast enough. (IV) Plant biologists learned later that ripening in the sheds was actually due to ethylene, a gaseous by-product of kerosene combustion. (V) We now know that plants produce their own ethylene, which functions as a hormone that triggers a variety of aging responses, including fruit ripening and programmed cell death.

- A) I B) II C) III D) IV E) V

56. (I) Since the terrorist attacks on 11 September 2001, anti-aircraft missile batteries have been installed to protect buildings in US cities. (II) However, less drastic solutions have also been suggested. (III) No software simulation is going to be sufficient to convince any pilot about the new avionics systems. (IV) An aerospace company, for instance, has proposed installing the electronics from its pilotless plane in passenger aircraft to allow ground control to take over a hijacked plane and land it remotely. (V) Others say automatic landing systems could steer planes to safety without human intervention.

- A) I B) II C) III D) IV E) V

57. – 60. soruları aşağıdaki parçaya göre cevaplayınız.

There were many heated debates in the nineteenth century about the relationship between chemical reactions and living organisms. Some scientists felt that fermentation was an activity of living things and, therefore, could not take place outside of living cells. This was proved by the work Louis Pasteur undertook for the French wine industry. Indeed, in the 1850s, the French wine industry was having serious trouble with wine that had spoiled. The French emperor, Napoleon III, called in Pasteur to help. Pasteur knew that the fermentation which produced wine was caused by living yeast cells. But now he found that certain bacteria could also carry out fermentation. He discovered that fermentation by bacteria spoils wine because it produces vinegar (acetic acid) instead of the alcohol produced by yeast. Pasteur suggested that the winemakers heat the wine for a short time to destroy the bacteria. They were horrified, but it worked. The process, pasteurization, is still used today, especially for milk.

57. It is clear from the passage that the fundamental principle of pasteurization, especially as practised in the milk industry today, ----.

- A) aroused a fierce controversy among the French scientists of the nineteenth century
 B) was already known in France before the time of Pasteur
 C) was given a full scientific explanation by scientists working for Napoleon III
 D) was discovered only after a long period of experimentation by French winemakers
 E) is the destruction, by heating, of the bacteria which cause fermentation

58. One understands from the passage that, in the nineteenth century, ----.

- A) a major controversy among scientists concerned whether living organisms played any role in chemical reactions
- B) Napoleon III was seriously interested in scientific matters and favoured Pasteur more than any other scientist
- C) French winemakers had so much trust in Pasteur's work on bacteria that they fully followed his instructions for the process of pasteurization
- D) French scientists especially focused on fermentation, since the wine industry was of vital importance for France
- E) the French wine industry was remarkably advanced since it made use of various innovations and scientific discoveries

59. According to the passage, Pasteur discovered that ----.

- A) most French winemakers were far more skilled at producing vinegar than wine
- B) the problem French winemakers faced needed to be dealt with immediately
- C) most scientists of his time knew little about the variety of chemical reactions taking place in living organisms but they were prepared to debate about them
- D) what really spoiled wine was not fermentation brought about by living yeast cells but that caused by bacterial activity
- E) not only the French wine industry but also its milk industry could be greatly improved through the use of pasteurization

60. As pointed out in the passage, the idea that ----.

- A) bacteria spoiled wine was accepted among the French scientists of the nineteenth century, but it was Pasteur whom Napoleon III appointed to improve wine-making in the country
- B) bacteria in wine could best be destroyed through a prolonged process of heating was commonplace among nineteenth-century French winemakers
- C) pasteurization prevented milk from spoiling quickly spread outside France in the nineteenth century and has never since been challenged by scientists
- D) fermentation by bacteria spoils wine is no longer current, since various new methods have been developed for better wine-making
- E) fermentation was caused by a chemical reaction in living cells wasn't accepted by many scientists until well into the nineteenth century

61. – 64. soruları aşağıdaki parçaya göre cevaplayınız.

Fossils are the remains of organisms which have endured for fantastic periods of time. Fossils can be bones or teeth or even plant or animal imprints preserved in rock since prehistoric times. The appearance of fossils in rock has been a source of wonder and fascination to man for centuries. The fossil of an ancient sea animal was even found among the possessions of a prehistoric man. Many people have tried to explain fossils. Aristotle believed they were the remains of living creatures, but thought the creatures grew in the rocks. Some people believed that fossils were placed in rocks by evil spirits. Other explanations were remarkably modern. For example, Herodotus, an ancient Greek historian, observed fossil seashells in the Libyan desert in 450 B.C. and guessed that the Mediterranean Sea had once reached much farther south than it does today.

61. It is clear from the passage that ----.

- A) throughout history, there have been many different views and explanations as regards the nature and cause of fossils
- B) it is only in modern times that there has been any serious interest in fossils
- C) human interest in fossils has only been aroused through the fascinating explanations and discoveries made by modern science
- D) Herodotus travelled extensively in the Mediterranean world and was particularly attracted by the geography of Libya
- E) the study of fossils by modern scientists has mostly focused on the preserved imprints of plants and animals in rocks

62. It is clear from the passage that fossils ----.

- A) greatly fascinated prehistoric peoples, who revered them as sacred
- B) are always found in rocks as bones or teeth
- C) date back to very early prehistoric times
- D) were not as serious a concern for Aristotle as they were for others
- E) were regarded by prehistoric man as evil spirits preserved in rocks

63. According to the passage, Herodotus speculated that the Libyan desert, ----.

- A) which was rich in the remains of various organisms, had been the original home of prehistoric man
- B) which was vast and dry, had been flooded on several occasions in the past by the Mediterranean Sea
- C) through which he often travelled, had in the past made up a major part of the Mediterranean Sea
- D) where he saw fossil seashells, had once been covered by the Mediterranean Sea
- E) where there were plant and animal imprints in rocks, had no connection whatsoever with the Mediterranean Sea

64. It is pointed out in the passage that ----.

- A) Aristotle was particularly interested in the fossils found in rocks
- B) there are many different kinds of fossils
- C) the earliest kinds of fossils were those of sea plants and seashells
- D) Herodotus and Aristotle were the earliest pioneers of fossil studies
- E) the very first discovery of fossils was in the Libyan desert

Diğer sayfaya geçiniz.

65. – 68. soruları aşağıdaki parçaya göre cevaplayınız.

A population is a group of individual organisms of the same kind that are limited to some particular space. The most familiar example is the human population, but there are also populations of animals and plants everywhere on Earth. In fact, scientists regard a population as a biological unit that has both structure and function. The parts of a population are its individual members. The functions of a population are similar to those of other biological units: growth, development, and self-maintenance in a changing environment. Individuals enter a population by birth and by moving in, that is, by immigration. Individuals leave a population by death and by moving out, that is, by emigration. If the environment of a population remains the same, loss and replacement of members are in balance. The population will be able to survive in that particular environment. If the environment changes, however, loss or addition of members increases or decreases the size of the population.

65. It is pointed out in the passage that the changes that occur in the environment of a population ----.

- A) have an impact, negative or positive, on the members of that population
- B) speed up the process of replacement of the members of the population
- C) always contribute greatly to the survival of all the members of that population
- D) are mostly caused by the uncontrollable size of that population
- E) can be reduced through an increase in the size of the population

66. According to the passage, what is called a "population" in biology ----.

- A) can be defined as any group of organisms that is not subject to loss and replacement
- B) is a biological unit that has only the function of growth
- C) is a group of animals and plants that can survive all kinds of environmental changes
- D) solely refers to any human group that lives in a specific region on Earth
- E) is a unit that consists of the same kind of individual organisms living in a particular area

67. It is clear from the passage that, so long as a population lives in a constant environment, ----.

- A) the growth, development, and self-maintenance of its members can be fully controlled
- B) its size remains more or less stable
- C) it usually undergoes a rapid structural change, which considerably affects its size
- D) the replacement of its members is relatively slow, compared with other populations in different environments
- E) its survival becomes difficult owing to the uncontrollable increase in its size

68. As it is indicated in the passage, if the addition of new members to a population exceeds loss, ----.

- A) this can have a restrictive effect on emigrations from the population
- B) this has no effect whatsoever on the environment in which the population lives
- C) the survival of the population can be maintained in a balanced way
- D) the size of the population shows a growing pattern
- E) new measures must be introduced to prevent environmental changes

Diğer sayfaya geçiniz.

69. – 72. soruları aşağıdaki parçaya göre cevaplayınız.

Pluto, which was until recently regarded as the outermost and smallest planet in the solar system, has never been visited by an exploring spacecraft. So little is known about it that it is difficult to classify. Its distance from Earth is so great that the Hubble Space Telescope cannot reveal its surface features. Appropriately named for the Roman god of the underworld, it must be frozen, dark, and dead. Its mean distance from the Sun is 5,900 million kilometres. In fact, it has the most eccentric orbit in the solar system, bringing it at times closer to the Sun than Neptune. Furthermore, there is evidence that Pluto has an atmosphere, containing methane, and a polar ice cap that increases and decreases in size with Pluto's seasons. It is not known to have water. The Hubble Space Telescope's faint-object camera revealed light and dark regions on Pluto, indicating an ice cap at the north pole. It is not known if there is an ice cap at Pluto's south pole.

69. According to the passage, Pluto's orbit around the Sun ----.

- A) takes so long that each of its seasons has a long period
- B) has not yet been described accurately
- C) brings it, on occasion, closer than Neptune to the Sun
- D) follows a pattern which is uniform and stable
- E) has been studied again and again through the Hubble Space Telescope

70. As is pointed out in the passage, Pluto ----.

- A) is on the outer edge of the solar system
- B) has extensive ice caps at both its poles
- C) was a major god in antiquity, worshipped by the Romans as well as by other peoples
- D) and Neptune seem to have similar orbits that bring them closer to the Sun
- E) looks so dark that nothing whatsoever can be observed on it

Diğer sayfaya geçiniz.

A

ÜDS İNG. FEN BİL. / MART 2008

71. It is stated in the passage that, since Pluto is so far away from Earth, ----.

- A) its regions and poles can best be studied through a powerful telescope
- B) almost nothing is known about even its exterior
- C) the density of the methane in its atmosphere cannot be measured
- D) the Hubble Space Telescope clearly shows how completely frozen its surface is
- E) only some minor explorations have so far been made by means of a spacecraft

72. As is stated in the passage, from the data provided by the Hubble Space Telescope about Pluto ----.

- A) some scientists have suggested that its exploration ought to be started soon
- B) one can conclude that it has a climate which is stable and temperate
- C) it has a dull surface with absolutely no variety
- D) it is understood that there is an ice cap on its north pole
- E) one becomes aware of the fact that every planet in the solar system has a similar cycle of seasons

Diğer sayfaya geçiniz.

73. – 76. soruları aşağıdaki parçaya göre cevaplayınız.

Today the world faces a growing crisis over the management of its great rivers. In recent years, most of the great rivers in the world, such as the Yellow River in China, the Indus, the Colorado, and the Nile, have all periodically run empty because mankind has used their every last drop. Indeed, there is a huge unmet demand in the world for water. More than a billion people have no access to clean drinking water, and while it is hoped that this figure will be halved by 2015, nobody is sure where the water will come from. With today's trends, one-third of the world population will be seriously short of water by 2025. Politicians in China, India, Pakistan, Egypt and other water-stressed countries want their water engineers to find solutions – and fast.

73. In the passage, there is a clear warning that, ----.

- A) sooner or later, water shortages could lead to serious political crises in China and other countries
- B) despite the solutions proposed by water engineers, the people of China, India, Pakistan, and Egypt will soon face a serious shortage of water
- C) unless more precautions are taken, more than a billion people will have almost no access to water in the near future
- D) so long as politicians remain indifferent to the growing water crisis in the world, most countries will be unable to provide clean drinking water for their people
- E) by the end of the first quarter of this century, there will be a severe water shortage affecting one-third of the world population

74. According to the passage, the water resources of the world ----.

- A) are largely confined to the Indus and the Nile
- B) have been increased through the solutions proposed by water engineers, and so the need for clean drinking water will be met well before 2015
- C) are so limited that it is doubtful whether the number of people with no access to clean drinking water can be halved, as hoped, by 2015
- D) have become a major concern among politicians in many countries and, therefore, new policies have been proposed for an efficient management of the great rivers
- E) need to be upgraded by 2025 in order to catch up with the growth rate of the world population

A

ÜDS İNG. FEN BİL. / MART 2008

75. As can be understood from the passage, the fact that even some great rivers have from time to time run dry due to the overuse of their capacity ----.

- A) demonstrates how the growth of the populations in some countries has had an adverse effect on the water resources
- B) shows how irresponsible the water engineers of most countries have been
- C) signifies that there must be a national water authority in each country for the preservation of the water resources
- D) makes it urgent for water engineers to discover new water resources in the southwestern US
- E) is a clear indication of how urgent the demand for water is in the world today

76. One concludes from the passage that efficient management of the water resources of the world is essential ----.

- A) if the growing worldwide demand for water is to be met adequately
- B) and the waters of the Nile and the Indus, in particular, must not be used so wastefully
- C) since China and India, with their large populations, are heading for a serious shortage of water well before 2015
- D) as one-third of the population in China is unable to get clean drinking water
- E) in order to maintain political stability in the countries most affected by an acute shortage of drinking water

Diğer sayfaya geçiniz.

77. – 80. soruları aşağıdaki parçaya göre cevaplayınız.

The huge ice sheet covering Greenland, which is the world's largest island, provides a habitat for many arctic species and holds nearly 8 per cent of the world's freshwater. It is, on average, 5,000 feet thick and is constantly being replaced as snow falls each winter. Over the course of centuries, the snow compacts into ice, which slides towards the ocean. In recent years, higher atmospheric concentrations of heat-trapping gases have accelerated that process. As temperatures rise, the top layers melt, giving way to darker, heat-absorbing ice and liquid water. The meltwater seeps down to the rock below, lubricating the ice mass and speeding its slide into the sea.

77. As one can see, the passage ----.

- A) focuses on the importance of Greenland as a major source of the world's freshwater
- B) is mainly concerned with the geographical features of Greenland's surface and highlights its natural beauty
- C) deals in detail with the causes of global warming and its effects on the arctic species in Greenland
- D) explains how global warming is having an environmental impact on Greenland's ice mass
- E) extensively describes the process whereby the ice mass of Greenland has formed over the course of centuries

78. It is pointed out in the passage that the slide into the ocean of the ice mass in Greenland ----.

- A) has caused much damage to a wide range of arctic species and their habitat
- B) can be prevented completely so long as temperatures are stable
- C) is of vital importance because, through this process, the world's freshwater capacity is increased
- D) has only been observed in recent years, but environmentally, this phenomenon is of no significance
- E) has been faster than usual in recent years as a result of global warming

79. According to the passage, when the top layers of the ice sheet melt, ----.

- A) the ice mass ceases to slide towards the ocean
- B) water seeps down to the rocks below aiding the ice mass to slide into the sea
- C) it has an adverse effect on various arctic species
- D) the rock under the ice mass is fully exposed
- E) there is a noticeable increase in the volume of liquid water

80. As pointed out in the passage, Greenland, with its 5,000-foot-thick ice sheet, ----.

- A) is so affected by the atmospheric concentrations of heat-trapping gases that the amount of the meltwater on the island has risen to a dangerous level
- B) has lost much of its freshwater capacity due to the process of extensive melting which has been going on for centuries
- C) will soon lose its ice mass, since the amount of snowfall on the island each winter has dropped dramatically over the course of the last few centuries
- D) not only accommodates different kinds of arctic species but also preserves a significant amount of the world's freshwater
- E) can no longer provide a habitat for some arctic species that have lived on the island over the course of many centuries

TEST BİTTİ.

CEVAPLARINIZI KONTROL EDİNİZ.