

YÖKDİL FEN BİLİMLERİ
ŞUBAT 2021
Ertelenen sınav

1 - 20. sorularda, cümlede boş bırakılan yerlere uygun düşen sözcük ya da ifadeyi bulunuz.

1. **At just the right distance from the Sun for water to exist in liquid form on the surface, Earth has vast oceans, an oxygen-rich atmosphere, and a huge ---- of life forms from bacteria to plants and animals.**

- A) diversity
- B) measurement
- C) durability
- D) implication
- E) identification

2. **Titanium is the element most commonly added to steel because it increases its strength and ---- to corrosion.**

- A) destruction
- B) specialty
- C) pattern
- D) achievement
- E) resistance

3. **From its invention until the telephone became a ---- system, the telegraph was the standard means of communicating both between and within metropolitan areas.**

- A) rare
- B) sensitive
- C) suspicious
- D) practical
- E) repetitive

4. **Global warming is a very complex issue that one cannot ---- understand without looking at extensive data and studying the changes to climate systems.**

- A) temporarily
- B) simultaneously
- C) privately
- D) entirely
- E) desperately

5. **If our petroleum-based civilisation keeps burning fuel at current or increasing rates, some scientists ---- that the concentration of carbon dioxide in the Earth's air will double the preindustrial levels by the year 2030.**

- A) endure
- B) regret
- C) predict
- D) differentiate
- E) appreciate

6. **The very earliest explorations of the sea ---- human endurance, that is, how deep a person could dive.**

- A) filled out
- B) turned down
- C) carried out
- D) depended on
- E) worked out

7. **In the past 100 years, astrophysicists ---- that space-time ---- at an accelerating rate and that the universe is about 14 billion years old.**
- A) deduced / has expanded
B) have deduced / is expanding
C) had deduced / will expand
D) are going to deduce / expands
E) deduce / had expanded
8. **Evidence that drinkable water once flowed on Mars, as ---- by NASA's Opportunity rover, suggests that the planet ---- life in the past.**
- A) to be found / had harboured
B) being found / will be harbouring
C) found / could have harboured
D) finding / might have harboured
E) to have been found / would harbour
9. **An organism's metabolism is a set of chemical processes by which it obtains energy ---- the nutrients it consumes and then uses this energy ---- basic life functions.**
- A) at / through
B) upon / about
C) from / for
D) into / with
E) to / over
10. **Although most of the known amino acids were identified ---- the nineteenth century, the chemical structures of many were not known ---- much later.**
- A) before / by
B) at / for
C) in / since
D) over / about
E) during / until
11. **Canines, members of the dog family, originated ---- North America during the Eocene era, ---- there they spread throughout the world.**
- A) in / from
B) through / during
C) on / to
D) by / over
E) for / around
12. **---- there are various ways to define desert climate, a classification system widely used by modern scientists defines it as averaging at least twice as much potential evaporation as rainfall during the year.**
- A) In case
B) Although
C) Once
D) Unless
E) Given that

13. ---- the major technical problems associated with reducing emissions from gasoline-fueled cars are solved, such reductions alone might not be sufficient to solve the air pollution problems.
- A) Now that
B) Once
C) Even if
D) As soon as
E) Until
14. Global warming is likely to make many parts of the world uninhabitable, ---- there are ways to limit the impact before it is too late.
- A) for
B) thus
C) as
D) but
E) once
15. ---- jaguars are secretive and rare, biologists have not been able to determine the exact number remaining in the wild.
- A) Unless B) While
C) In case D) Because
E) As if
16. Unlike other waves, tsunami is caused neither by wind nor by tidal movement;---- it is the result of major disturbances on the ocean floor.
- A) even so B) consequently
C) otherwise D) rather
E) similarly
17. ---- failures such as those in the Bay Bridge and the Tacoma Narrows Bridge, engineers have developed methods for making bridges more aerodynamically sound.
- A) As a result of
B) On behalf of
C) For the sake of
D) In terms of
E) Regardless of
18. Titan -Saturn's largest satellite- is the only place in the solar system ---- Earth that has stable liquid on its surface.
- A) instead of
B) owing to
C) by means of
D) with regard to
E) other than
19. By analysing the spectrum of light from a star or galaxy, astronomers can tell how fast it is moving, and ---- it is moving toward ---- away from Earth.
- A) not only / but also
B) the more / the less
C) neither / nor
D) whether / or
E) as / as
20. Silicon refers to a large group of organic compounds ---- molecules consist of organic groups attached to silicon atoms.
- A) which B) that
C) whose D) that
E) who

21 - 25. sorularda, aşağıdaki parçada numaralanmış yerlere uygun düşen sözcük ya da ifadeyi bulunuz.

How do you sleep in zero gravity? The crew on the International Space Station (ISS) sleep in sleeping bags **(21)** ---- to the wall with special equipment. On average, crew members get six hours of sleep a night; **(22)** ----, since there is zero gravity, they feel drowsy and tired all the time. Many suffer **(23)** ---- sleep disorders. These are made worse by the fact that the ISS experiences 16 sunrises and sunsets every 24 hours. This frequent switching between day and night **(24)** ---- the production of the hormone melatonin, which regulates our sleep cycle. Another cause of sleep deprivation **(25)** ---- this are solar lightning strikes, which the astronauts can still see with their eyes closed.

21.

- A) having attached
- B) attaching
- C) attached
- D) to attach
- E) to be attaching

22.

- A) however
- B) similarly
- C) thus
- D) for instance
- E) in short

23.

- A) with
- B) by
- C) for
- D) from
- E) over

24.

- A) resumes
- B) expands
- C) tolerates
- D) promotes
- E) disturbs

25.

- A) instead of
- B) along with
- C) according to
- D) because of
- E) thanks to

26 - 30. sorularda, aşağıdaki parçada numaralanmış yerlere uygun düşen sözcük ya da ifadeyi bulunuz.

Polar bears are instantly recognisable for their vividly white coats. But believe it or not, they are not actually white - their fur **(26)** ---- no pigment at all. Each hair is transparent and hollow, and only appears white because it reflects and scatters visible light. **(27)** ---- this, polar bears seem to us masters of disguise, but not every animal sees them this way. While their fur reflects visible light, it absorbs ultraviolet light, **(28)** ---- the polar bears appear black to animals able to see UV light. **(29)** ---- polar bears are in captivity in mild environments; the colour of their fur may turn yellow or green, which may be because algae grow in warmer environments. **(30)** --- - the not-so-white fur, polar bears have black skin. As black reflects the least amount of light, and therefore heat, it is probable this helps the bears stay warm on the snow.

26.

- A) obtains
- B) gathers
- C) demands
- D) acquires
- E) contains

27.

- A) With the aim of
- B) Prior to
- C) As a result of
- D) Instead of
- E) On behalf of

28.

- A) making
- B) to make
- C) to be made
- D) to be making
- E) to have been made

29.

- A) Until
- B) When
- C) As if
- D) Although
- E) Even if

30.

- A) On
- B) At
- C) Into
- D) Under
- E) With

31 - 41. sorularda, verilen cümleyi uygun şekilde tamamlayan ifadeyi bulunuz.

31. **Since so much of the economy has a vested interest in the conventional internal combustion engine burning gasoline or diesel fuel, ----.**

- A) the energy density of the alternative fuels is considerably less than gasoline
- B) gasoline-powered automobiles are modified to burn a fuel such as ethanol alone
- C) any short-term move to an alternative fuel will meet environmental air quality regulations
- D) it will always take longer to refuel a vehicle using a lower-energy-density liquid fuel
- E) a market transition to alternative fuels and vehicles is likely to be slow and gradual

32. **Conservation is not only about protecting the species that we like; ----.**

- A) therefore, more and more species around the world are now facing the risk of extinction
- B) as a result, rescue projects for nature are never short of volunteers
- C) likewise, most people are concerned about endangered mammals
- D) instead, it is about protecting the whole of the natural world
- E) on the contrary, whales have a special place in wildlife conservation

33. **Despite their threatening and low-pitched buzzing sound, ----.**

- A) we have to examine the constant characteristics to identify species of bumblebees
- B) bumblebees appear to thrive best in the temperate zones of the Northern Hemisphere
- C) some bumblebees nest underground, where they take over cavities like mouse tunnels
- D) one had better not go in the vicinity of their nests or massively threaten a single bumblebee
- E) bumblebees are very peaceful creatures who very seldom use their considerable stinger

34. **In nature, it is very rare for species to die out so quickly; ----.**

- A) thus, dinosaurs died out completely, creating new opportunities for mammals and birds
- B) similarly, all of the extinct species outnumber the living ones by roughly one hundred to one
- C) instead, they normally go into a slow decline, which gives better-adapted species time to take their place
- D) furthermore, huge number of species become extinct together when disasters or climate change strike
- E) in addition, human activities such as farming and hunting are making species extinct at an ever-increasing rate

35. Pure aluminium is relatively soft and not the strongest of metals, ----.

- A) but when melted together with some specific elements, it forms alloys with a wide range of useful properties
- B) because it has been quite expensive to produce aluminium metal in any quantity until recent years
- C) provided that four million tons of aluminium are produced every year in the United States
- D) as long as the metal itself is known to conduct electricity about 60% as well as copper
- E) given that some people claim that it is toxic and that aluminium cookware is therefore dangerous

36. In the late 1980s, the production of commercial aerosols fell slightly ----.

- A) because some groups became concerned about their environmental effects
- B) since there have been a number of advances in aerosol technology
- C) unless in many cases this substitution resulted in relatively inferior products
- D) in case aerosol technology helps combustion systems vastly improve
- E) even if these limitations had forced the aerosol industry to seek alternative solvents

37. ----, the protein content of it may not be as high as that of duckweed or insects.

- A) Although it makes financial sense to grow raw materials around near-shore wind farms
- B) Since a lot of seaweed farmers are thinking about installing their farms near windmills
- C) Even if some researchers believe seaweed carries the greatest feed-the-world potential
- D) As most of us already eat mostly protein-based meals about twice as much as we require
- E) Because there is enough land to farm seaweed or duckweed for our expanding population

38. Pests are one of the biggest problems for agricultural lands, ----.

- A) even if we know caterpillars eat many vital food crops like rice
- B) so that they can destroy a farmer's entire crop in a single night
- C) but natural predators can stop them from causing a total disaster
- D) unless they ruin crops that are worth billions of dollars annually
- E) although identifying crops that are more resistant to pests is essential

39. The wood of pines is used as timber for construction and furniture; ----.

- A) similarly, wind or animals generally spread their seeds into the environment
- B) moreover, it is used for the manufacture of many products, including paper
- C) on the other hand, the leaves of all pines are needle-like
- D) in other words, one of the most important pines of the 1800s was the eastern white pine
- E) however, in modern times, several other species of pine are economically important

41. ----, many humans find rats frightening and revolting.

- A) Because the ancestor of New York's rats lived in northern China
- B) Despite the fact that rodents are seen as carriers of contagious and fatal diseases
- C) Until cities radically change how they deal with their household waste
- D) Even though rats and people have occupied shared living spaces for long
- E) Just as the populations of native rats have been reduced intentionally in New Zealand

40. Despite minerals' variety and complexity, ----.

- A) humans have made use of minerals in various ways for a long time
- B) they must be of nonbiological or inorganic origin, which excludes coal and peat
- C) there are several physical characteristics they all share
- D) their hardness is defined as their ability to scratch another mineral
- E) everything that humankind consumes, uses, or produces has its origin in minerals

42 - 47. sorularda, verilen İngilizce cümleye anlamca en yakın Türkçe cümleyi bulunuz.

42. Only in recent years, with the advance of technologies like fMRI, have Neuroscientists begun to figure out how and why we dream.

- A) fMRI gibi teknolojilerin gelişimiyle, sinir bilimciler nasıl ve neden rüya gördüğümüzü ancak son yıllarda anlamaya başlamışlardır.
- B) Sadece fMRI gibi teknolojilerin gelişimi sayesinde, sinir bilimciler nasıl ve neden rüya gördüğümüzü son yıllarda anlamaya başlamışlardır.
- C) fMRI gibi teknolojiler ancak son yıllarda gelişmiş ve böylelikle sinir bilimciler nasıl ve neden rüya gördüğümüzü anlamaya başlamışlardır.
- D) fMRI gibi teknolojilerin gelişmeye başlamasının ardından sinir bilimciler nasıl ve neden rüya gördüğümüzü ancak son yıllarda anlayabilmiştir.
- E) Sinir bilimcilerin nasıl ve neden rüya gördüğümüzü ancak son yıllarda anlayabilmeleri, fMRI gibi teknolojilerin gelişimiyle mümkün olmuştur.

43. Solubility is quite an important property as most chemical reactions occur when the substances reacting with each other are dissolved.

- A) Çözünürlüğü önemli bir özellik yapan şey kimyasal reaksiyonların çoğunun birbiriyle tepkimeye giren maddelerin çözünmesinden meydana gelmesidir.
- B) Çözünürlüğün oldukça önemli bir özellik olması birçok kimyasal reaksiyonun birbiriyle tepkimeye giren maddeler çözündüğünde meydana gelmesindedir.
- C) Çoğu kimyasal reaksiyon birbiriyle tepkimeye giren maddeler çözündüğünde meydana gelir ve bu da çözünürlüğü önemli bir hale getirir.
- D) Çözünürlük oldukça önemli bir özelliktir çünkü çoğu kimyasal reaksiyon, birbiriyle tepkimeye giren maddeler çözündüğünde meydana gelir.
- E) Çözünürlük oldukça önemlidir çünkü çoğu kimyasal reaksiyonun birbiriyle tepkimeye giren maddeler çözündüğünde meydana gelmesi bu özellik sayesinde olur.

44. Canned goods are the backbone of an emergency food supply because they can be stored without refrigeration and eaten without being heated.

- A) Konserve kutulu ürünler acil durum yiyecek temininin belkemiğidir çünkü buzdolabı olmadan depolanabilir ve ısıtılmadan yenebilir.
- B) Buzdolabı olmadan depolanabilen ve ısıtılmadan yenebilen konserve kutulu ürünler acil bir durumda yiyecek temininin belkemiğini oluşturur.
- C) Acil durum yiyecek temininin belkemiğini oluşturan konserve kutulu ürünler, buzdolabı olmadan muhafaza edilebilir ve ısıtılmadan yenebilir.
- D) Yiyecek temininin belkemiği olan konserve kutulu ürünler, buzdolabı olmadan depolanabildiği ve ısıtılmadan yenebildiği için acil durumlarda kullanılabilir.
- E) Konserve kutulu ürünler buzdolabı olmaksızın depolanabilmesi ve ısıtılmaksızın yenebilmesi gibi özellikleriyle acil durum yiyecek temininin belkemiğidir.

45. A study shows that the destruction of tropical rain forests, in particular, has brought humans face-to-face with microbes that are naturally seen in wild animals.

- A) Bir araştırma, özellikle yağmur ormanlarının yok edilmesinin insanları normalde yabani hayvanlarda görülen mikroplarla karşı karşıya bırakmış olduğunu göstermektedir.
- B) Normalde yabani hayvanlarda görülen mikropların insanlarda da görülmesi, bir araştırmaya göre özellikle yağmur ormanlarının yok edilmesi sonucunda gerçekleşmiştir.
- C) Bir araştırmaya göre, yağmur ormanlarının yok edilmesi sonucunda insanlar, normalde özellikle yabani hayvanlarda görülen mikroplarla karşı karşıya kalmaktadır.
- D) Özellikle yağmur ormanlarının yok edilmesiyle insanların normalde yabani hayvanlarda görülen mikroplarla karşı karşıya kaldığı, bir araştırma sonucunda ortaya çıkmıştır.
- E) Bir araştırma, normalde yabani hayvanlarda görülen mikropların insanlarda da ortaya çıkmasının özellikle yağmur ormanlarının yok edilmesine bağlı olduğunu göstermektedir.

46. When people try to stop using caffeine, they may feel headache and fatigue, but these symptoms can be controlled by gradually reducing the amount of caffeine consumed.

- A) Kafeini bırakmaya çalışan insanlar baş ağrısı ve yorgunluk gibi belirtiler gösterebilir ama bu belirtiler tüketilen kafein miktarı kademeli olarak azaltılarak kontrol edilebilir.
- B) İnsanlar kafein kullanmayı bırakmaya çalıştıklarında baş ağrısı ve yorgunluk hissedebilirler, ama bu belirtiler tüketilen kafein miktarı kademeli olarak azaltılarak kontrol edilebilir.
- C) İnsanların kafein kullanmayı bırakmaya çalıştıklarında yaşadıkları baş ağrısı ve yorgunluk hissi gibi belirtiler tüketilen kafein miktarı kademeli olarak azaltılarak kontrol altına alınabilir.
- D) İnsanlar tüketilen kafein miktarını kademeli olarak azaltarak baş ağrısı ve yorgunluk gibi belirtileri kontrol altına alabilir ve böylece kafein kullanmayı bırakabilir.
- E) Tüketilen kafein miktarını kademeli olarak azaltarak bırakmaya çalışan insanlar yine de bu dönemde yoğun baş ağrısı ve yorgunluk gibi belirtileri hissedebilir.

47. Most parts of meteors evaporate when they hit the Earth, as their kinetic energy is converted into heat and high temperatures turn even rock into gas.

- A) Dünya'ya çarptıklarında kinetik enerjileri ısıya dönüşen meteorların birçok parçası, kayayı bile gaz hâline getiren yüksek sıcaklıklardan dolayı buharlaşır.
- B) Meteorların birçok parçası Dünya'ya çarptığında buharlaşır çünkü kinetik enerjileri ısıya dönüşür ve yüksek sıcaklıklar kayayı bile gaz hâline getirir.
- C) Meteorların birçok parçasının Dünya'ya çarptığında buharlaşması, kinetik enerjilerinin ısıya dönüşüp yüksek sıcaklıklarda kayayı bile gaz hâline getirmesi sebebiyledir.
- D) Meteorların kinetik enerjilerinin ısıya dönüşmesi sonucunda oluşan yüksek sıcaklıklar kayayı bile gaz hâline getirdiği için birçok meteor parçası Dünya'ya çarptıktan sonra buharlaşır.
- E) Dünya'ya çarpan meteorların birçok parçası buharlaşır, çünkü kinetik enerjilerinin ısıya dönüşmesiyle oluşan yüksek sıcaklıklar kayayı bile gaz haline getirir.

48 - 53. sorularda, verilen Türkçe cümleye anlamca en yakın İngilizce cümleyi bulunuz.

48. Nükleer endüstrinin günümüzde karşılaştığı en büyük teknolojik sorun yüksek miktardaki atıkların uzun süreli ve güvenli olarak elden çıkarılmasıdır.

- A) Currently, the biggest technological problem of the nuclear industry is how to get rid of high-level waste safely for a long term.
- B) The biggest technological problem which the nuclear industry is currently facing is related to how to dispose high-level waste safely in the long term.
- C) Long-term and safe disposal of high-level nuclear waste is the biggest technological problem the nuclear industry has encountered.
- D) The biggest technological problem the nuclear industry is presently facing is the long-term and safe disposal of high-level waste.
- E) The nuclear industry currently is facing their biggest problem, which is the long term and safe disposal of high-level waste.

49. Modern kozmoloji, Hubble Uzay Teleskopu gibi teçhizatları kullanarak evrenin düzenini tanımlama girişimidir.

- A) Modern cosmology is an attempt to describe the order of the universe by using such instruments as the Hubble Space Telescope.
- B) Modern cosmology that uses instruments like the Hubble Space Telescope attempts to identify the order of the universe.
- C) With an attempt to describe the order of the universe, modern cosmology makes use of instruments such as the Hubble Space Telescope.
- D) Using instruments like the Hubble Space Telescope, modern cosmology attempts to describe the order in the universe.
- E) Modern cosmology is an area in which an attempt is made to describe the order of the universe by using instruments such as the Hubble Space Telescope.

50. Organik kimya yeni maddeleri yeni özelliklerle sentezlemek için karbon atomlarından oluşan bileşiklerin nasıl değiştirileceğini ve birleştirileceğini araştırır.

- A) Organic chemistry explores how to change and connect compounds made up of carbon atoms in order to synthesise new substances with new properties.
- B) How to change and connect compounds made up of carbon atoms should be explored by organic chemistry to synthesise new substances with new properties.
- C) Organic chemistry explores the changes and connections of compounds made up of carbon atoms for the purpose of synthesising new substances with their new properties.
- D) In order to synthesise new substances with new properties, organic chemistry is to make explorations on the changes or connections of compounds made up of carbon atoms.
- E) Organic chemistry synthesises new substances with new properties by exploring how to change and connect compounds made up of carbon atoms.

51. Orta Çağın en müthiş ve insanların hayatı üzerinde en yaygın etkiye sahip icatlarından biri olan baskı işlemi Johannes Gutenberg tarafından tasarlanmıştır.

- A) In addition to being one of the greatest inventions of the Middle Ages, the printing process, devised by Johannes Gutenberg, had also the most widespread influence on the lives of people.
- B) One of the most brilliant inventions of the Middle Ages, the printing process devised by Johannes Gutenberg, was the one which had the most widespread influence on the lives of people.
- C) The printing process, which was one of the biggest inventions of the Middle Ages and that had the most widespread effect on the lives of people was devised by Johannes Gutenberg.
- D) The printing process devised by Johannes Gutenberg was one of the most brilliant inventions of the Middle Ages as it had the most widespread influence on the lives of people.
- E) The printing process, which was devised by Johannes Gutenberg, and which had a widespread effect on the lives of people, was one of the greatest inventions of the Middle Ages.

52. Fosiller sadece kemikler ve kabuklar gibi taşlaşmış gövde parçaları değildir, antik bakteri ve dinazor ayak izlerini de içerirler.

- A) Fossils are not just petrified bones, shells or body parts, they are also ancient bacteria and dinosaur prints of fossils.
- B) Petrified body parts like bones and shells are not the only fossils; also there are fossils of ancient bacteria and dinosaur footprints.
- C) Fossils are not just petrified body parts such as bones and shells; they also include ancient bacteria and dinosaur footprints.
- D) Fossils are both petrified body parts like bones and shells, and they also include ancient bacteria and footprints of dinosaurs.
- E) In addition to fossils like petrified body parts such as bones and shells, ancient bacteria and dinosaur footprints are fossils, too.

53. Geniş alanı göz önünde bulundurulduğunda Afrika diğer kıtalardan daha az büyük sıra dağlara sahiptir.

- A) There are fewer extensive mountain ranges in Africa than there are on the other continents, although it is a continent with a vast size.
- B) While it has a vast size, Africa has fewer extensive mountain ranges than do the other continents.
- C) Considering its vast size, Africa has fewer extensive mountain ranges than any other continent.
- D) In Africa, there are not as many extensive mountain ranges as there are on any other continents despite its vast size.
- E) Compared to the other continents, there are fewer extensive mountain ranges in Africa in spite of its vast size.

54 - 59. sorularda, parçada anlam bütünlüğünü sağlamak için boş bırakılan yerlere getirilebilecek cümleyi bulunuz.

54. ---- The latter are quite costly and typically consist of 90% fuel, 5% hull, and only 5% payload in the shape of astronauts, satellites, and other things. The elevators, on the other hand, will be powered by solar energy and have room for much more than goods. According to a group of scientists, an elevator capsule can ferry 30 passengers to a space station some 35,000 km above Earth in 7.5 days. A trip to space could cost as much as a business-class plane-ticket very soon.

- A) If space elevators become a reality one day, they will be a much cheaper means of transport into space than rockets.
- B) The idea of a space elevator has existed since the late 1800s, but for almost 100 years, it seemed unrealistic.
- C) Scientists are still not sure which method is the best for building an advanced space elevator.
- D) A recent satellite experiment has eventually become the predecessor of a full scale space elevator.
- E) in theory, hundreds of kilograms are required to keep a space elevator structure stable in the orbit.

55. Researchers looked at how the genetic diversity of African lions has changed over time. They discovered that the diversity of the population in the Kavango-Zambezi conservation area which spans parts of Angola, Botswana; Namibia, Zambia and Zimbabwe, has fallen by up to 17 percent since 1895. ---- It is known that there are now fewer lions in Africa, and they occupy a smaller area, but it was previously less clear how well they were doing in their heartlands.

- A) The loss of genetic variation in the Kavango-Zambezi lions reduces their ability to adapt to future changes and threats.
- B) This drop is significant because it occurred in an area that is home to one of the continent's most important lion populations.
- C) Stopping the decline in the lion's genetic diversity will require political support.
- D) In Botswana, there is political will to protect lions because tourism is seen so significant for the country.
- E) Researchers have been studying the genetic diversity of the world's lion population since the end of the 19th century.

56. The Sun is a typical star, little different from billions of others in our galaxy, the Milky Way. It dominates everything around it, accounting for 99.8 percent of the solar system's mass: Compared with any of its planets, the Sun is immense. ---- Yet, the Sun is by no means the biggest star; VY Canis Majoris, known as a hypergiant, could hold almost 3 billion Suns.

- A) Now approximately halfway through its life, in about 5 billion years it will turn into a red giant, swelling and surging out toward the planets.
- B) Energy travelling from the Sun is responsible for sustaining the entire life on Earth.
- C) Earth would fit inside the Sun over one million times; even the biggest planet, Jupiter, is a thousandth of the Sun's volume.
- D) It may seem like an unchanging yellow ball in the sky, but the Sun is incredibly dynamic.
- E) The pressure inside the Sun is more than 100 billion times greater than atmospheric pressure on the Earth's surface.

57. Earthquakes and volcanoes have affected humans' history, culture, and civilisation. Earthquakes have been reported to result in great human casualties as well as economic destruction. ---- Earthquakes and volcanoes have terrified people, both young and old with their destructive power.

- A) Humans have been adversely affected by numerous disasters, including floods and tsunamis.
- B) With regard to the hazard that they present, volcanoes can be classified as active, dormant, or extinct.
- C) One would think that with all the human advances in technology, earthquakes and volcanoes would become less damaging.
- D) Volcanoes have even been credited with altering the Earth's climate, thereby causing some of the major famines and even plagues in history
- E) Volcanic rocks produced from partially melted continental crust usually appear red, brown, or grey in colour.

58. Scientists determine the global water level by means of satellites equipped with altimeters. Every second, the altimeter emits some 1700 pulses of microwave energy towards Earth. By measuring the time passing before the reflected energy from the ocean surface returns to the satellite, it is possible to determine the level of the surface with impressive precision. ---- By collecting all data from multiple overflights, scientists can calculate the average global water level over a calendar year, screening out the effects of wind, waves, ocean currents, tides and soon, all of which can influence individual data points.

- A) Before the first water-level satellite was launched in 1992, harbour water-level markers were scientists' most important tools.
- B) Additionally, satellites can cover the entire planet in about 10 days, providing an overall picture of water levels for all seas and oceans.
- C) Those satellites should be able to dismiss local effects, such as in Scandinavia, where the landmass is rising compared with the rest of the world.
- D) A local water-level marker in a harbour in the Gulf of Bothnia would indicate that water levels there are falling by about 1 cm annually.
- E) Satellite data can show that there is a local effect, with no relevance to global water levels, in the case of local factors such as tides.

59. ---- First, wind pumps are environmentally friendly. As with the atmosphere, wind turbines will not contaminate the land, they are not likely to contaminate the water either. Also, wind turbines generally do not affect the wildlife that inhabits the area. Sheep, cattle, deer, and other wildlife are not bothered by the turbines, and in fact, have been known to graze under them.

- A) Several types of wind pumps have been used for centuries and continue in use around the world.
- B) There are many advantages to using wind energy for pumping water.
- C) Birds have long been reported to have a tendency to collide with wind pumps.
- D) Research suggests that the impact of the wind turbines on birds does not compare to that of other things.
- E) Using fossil fuels to pump water is more costly than wind pumps.

60 - 65. sorularda, cümleler sırasıyla okunduğunda parçanın anlam bütünlüğünü bozan cümleyi bulunuz.

60. (I) Scientists try to find new ways to harness natural processes in the fight against environmental disaster. (II) A team of researchers, for instance, announced that fungi could be key to winning the battle against plastic waste. (III) After several research studies, a fungus called *Aspergillus tubingensis*, which produces an enzyme that can break down even super-resilient plastics, fully digesting it within weeks, was found. (IV) The genes that produce it could be put in marine fungi to help clear plastic in the oceans. (V) Meanwhile, deep in Oman's al-Hajar mountain range, geologists have found a potential way to remove carbon dioxide from air and water.

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

61. (I) The mammals of the world are increasingly active during the night instead of during the day, according to a major study. (II) American scientists monitored the circadian rhythms of 141 animal groups of 62 different species from all continents except Antarctica. (III) The nocturnal activity also brings animals in contact with new predators that they must learn how to handle. (IV) It was found that the animals' nocturnal activity on average increased by 36% in places where they would often come into contact with humans during the day. (V) Individual species are nocturnal for different reasons such as to get access to food or avoid hunters, but generally, it is to limit the contact with humans to a minimum.

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

62. (I) With pictures of wildfires captured by satellite cameras in hand, researchers at the University of Waterloo in Canada, are using an artificial intelligence strategy called reinforcement learning to create models that predict how the fires spread. (II) Researchers are already considering applying the same technique to predict flooding and drought (III) In a repetitive process using images from previous fires, the model receives images showing a fire's location every 16 days. (IV) The model then predicts the next 16 days' spread and receives feedback about the accuracy of its prediction, improving the model's understanding of how fires move. (V) As it progresses, the model learns 'rules' that wildfires follow - for example, that fire stops when it meets a lake.

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

63. (I) The world's first land plants were just ankle-high, and they reproduced by releasing tiny spores. (II) Over millions of years, animals and plants became close partners. (III) As time went by, plants became taller, tougher and more varied, and the new plants included giant horsetails and tree ferns, which grew in vast forests on swampy ground. (IV) The breakthrough came later when some plants developed seeds. (V) Seeds turned out to be one of nature's greatest inventions, allowing plants to spread to some of the driest and coldest places on Earth.

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

64. (I) Fungi release digestive enzymes that break down food on the immediate contact. (II) Different species of fungi have several different ways of sending spores on their journey. (III) Mushrooms, for example, shed their spores downwards, but puffballs give theirs a flying start by blowing them up into the air. (IV) When a puffball is newly grown, it feels hard and rubbery, like a ball; however, as its spores begin to ripen, it dries out. (V) The top of the puffball then opens up, forming a hole so that the spores can be released.

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

65. (I) Pollution is not a new phenomenon. (II) In the Middle Ages, London's air was so badly polluted by smoke from coal fires that in 1273 Edward I passed a law banning coal burning. (III) In 1306 a Londoner was tried and executed for breaking this law. (IV) Coal burning remained the most serious source of pollution until modern times. (V) Despite this, pollution was not checked, and on one occasion in 1578, Elizabeth I refused to enter London because there was so much smoke in the air.

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

66 - 68. soruları aşağıda verilen parçaya göre cevaplayınız.

Chimps might have spontaneously figured out how to use a stick to mash a potato, a skill not observed in most other primates. Wild chimpanzees in Guinea climb palm trees to eat the trees' hearts, which look like white asparagus. They use sticks to mash the hearts before eating them. Chimps elsewhere do not do this, suggesting that the behaviour is cultural and that Guinea chimps pick it up by copying each other. However, Claudio Tennie of the University of Tübingen in Germany is sceptical about copying. Many studies have demonstrated copying among chimps by showing them how to get food out of puzzle box and seeing if they can then do it. Tennie says these studies are flawed because the chimps may simply be grasping how such boxes work and then figuring out how to open them themselves. To see whether chimps can work out such tricks on their own, Tennie studied semi-wild chimps in Zambia. The chimps had never seen stick-pounding. Tennie gave them potatoes that had been boiled for three minutes: long enough to be edible, but still hard to eat. In three out of four groups, one chimp collected a stick and used it to mash the potato. "They redevelop these kinds of behaviours on their own from scratch," says Tennie.

66. According to the passage; chimps in Guinea - ---.

- A) might have developed the behaviour to mash the trees' hearts with sticks on their own
- B) were unique in the way their ability to climb palm trees
- C) learned more easily to adopt new behaviour while eating
- D) made scientists rethink how tool use is acquired by other primates
- E) tend to copy the behaviours of their enemies in the wild

67. It is pointed out in the passage that Claudio Tennie ----.

- A) was one of the few scientists who claim that chimps might copy each other
- B) lacked the necessary knowledge about chimpanzees in Guinea and their environment
- C) considered the new behaviour of Guinea chimps as a typical development in primates
- D) suspected the development of a new behaviour among chimps would ever be possible
- E) doubted the idea that Guinea chimps may have figured out how to use sticks by copying each other

68. One can understand from the passage that the chimps in Zambia that had never seen stick-pounding before ----.

- A) successfully used sticks to open boxes before they were tested by Tennie
- B) preferred to wait for a long time before collecting sticks to mash the potatoes given
- C) had an inherent tendency to eat raw potatoes rather than the boiled ones
- D) could also display a new behaviour of mashing hard food with a stick before they eat
- E) initially struggled to use sticks to mash food before eating palm trees' hearts

69 - 71. soruları aşağıda verilen parçaya göre cevaplayınız.

Plants have a number of properties that we do not encounter in synthetic materials: plants self-repair, they are easy to recycle, and they are low-cost. More importantly, they harvest energy from the Sun via photosynthesis. Then they store that energy in the form of sugars and starches. So, a plant can be thought as a combination of a solar cell and battery. Plant 'nanobionics' seeks to work out the ways that you could transform a living plant use these capabilities. Scientists are using small particles that can enter the plant and interact with biochemical pathways to give it new functions. One example of these new functions is the glowing plants. Thanks to nanobionics, the plants glow for about 3.5 hours. The brightness is visible to the naked eye. The amount of light that is generated out of plants is actually enough for what architects call 'indirect lighting'. So, if you had a bunch of these plants lined up along a wall, you would contribute to ambient lighting and make your room attractive.

69. Which of the following is not true about plants?

- A) They have a lot of features different from synthetic materials.
- B) They possess properties similar to those of a solar cell and a battery.
- C) It is quite costly to recycle and repair them.
- D) They get energy from the Sun through photosynthesis.
- E) Scientists are trying to add more properties to them.

70. It is understood from the passage that glowing plants ----.

- A) can be used for decorative purposes
- B) are an exclusive interest of study for nanobionics
- C) fail to repair themselves in case of damage
- D) become brighter after 3.5 hours
- E) attract a lot of attention from all over the world

71. The passage is mainly about ----.

- A) the comparison of nanobionics with other fields of study
- B) nanobionics giving plants new functions
- C) alternative ways of creating ambient lighting
- D) how plants use photosynthesis to repair themselves
- E) the practicality of plants for recycling

72 - 74. soruları aşağıda verilen parçaya göre cevaplayınız.

A large proportion of soil in the lands south of the Sahara Desert lacks the organic matter and nutrients needed by plants. The soil needs to be rebuilt with decomposed plant and animal material, which adds nitrogen and carbon, helps to retain water and nourishes microbes that keep the Earth productive. However, a majority of African farmers can neither create nor afford to buy enough organic matter to improve their lands. Therefore, some farmers have adopted a set of strategies known as 'perenniation'. These methods rely on raising trees, shrubs, or perennial grasses right among or alongside food crops to renew soils, boosting crop yields and improving the long-term sustainability of food production. The perennial plants supply carbon and nitrogen to the ground, help to retain water, reduce erosion, fight off pests and raise crops' uptake of chemical fertilisers. They also provide farmers with feed for livestock and wood for fuel. These efforts are good starts, though researchers are not yet certain whether existing perenniation techniques would work best in various environments. A group of scientists have established 45 research stations to study the suitability of a range of trees, shrubs and other perennials for local climate, environmental and cultural conditions to explore alternative perenniation techniques.

72. What is the main problem with the soil in the south of the Sahara Desert?

- A) It has a great amount of chemical fertilisers.
- B) The amount of organic matter and nutrients in it is insufficient.
- C) The strategies used in farming have helped it to retain large quantities of water.
- D) The abundance of nitrogen has caused it to become infertile.
- E) Perennial plants have led to a decrease in the amount of nitrogen in it.

73. According to the passage, which of the following is true about 'perenniation' techniques?

- A) They increase pests' chances of survival.
- B) They result in a larger loss of soil due to erosion.
- C) They boost the variety of crops that can be grown in one field.
- D) They provide more than just soil benefits to farmers.
- E) They include the use of livestock to increase the fertilisation of the soil.

74. According to the passage, how do researchers feel about using the existing perenniation techniques in different environments?

- A) Critical
- B) Ignorant
- C) Questioning
- D) Assured
- E) Neutral

75 - 77. soruları aşağıda verilen parçaya göre cevaplayınız.

In pure form, menthol is a white crystalline material with a cooling taste and odour and occurs naturally in the peppermint plant. Peppermint is one of (the oldest known herbal remedies. Dried peppermint leaves were found in Egyptian pyramids dating to at least 1000 BCE, and its use among the ancient Greeks and Romans in cooking and medical preparations is well known. Peppermint was not introduced to Western Europe, however, until the 18th century, when it was used to treat a variety of ailments ranging from too to morning sickness. It was first brought to the United States about a century later. Although menthol has been classified as a generally safe product and approved for use in foods, some side effects have been reported. On contact with the skin, menthol may cause irritation in certain populations. Ingesting large quantities can cause abdominal pain, nausea, vomiting, dizziness and drowsiness. These effects are more likely to occur in infants and children than in adults.

75. According to the passage, peppermint was ----.

- A) the largely used herbal remedy for serious diseases in Western Europe until the 18th century
- B) used for medical purposes by various ancient cultures
- C) discovered almost simultaneously by the Europeans and the Americans
- D) initially applied by the Americans for the relief of toothaches in the 1900s
- E) extracted from the leaves of a plant which was crystallised and purified

76. According to the passage, exposure to high amounts of menthol ----.

- A) was reported to cause severe damage to the body by the Greeks and Romans
- B) requires immediate medical attention when menthol is consumed by the elderly
- C) might pose more serious health threats for some people than others
- D) is generally considered safe when it is absorbed by skin rather than ingested
- E) has been classified safe by the authorities in the United States

77. Which of the following can be inferred from the passage?

- A) Menthol is regarded as a safe compound, allowing its continued use as a food additive.
- B) The Egyptians developed a method for drying peppermint leaves, which affected later generations.
- C) In the 18th century, menthol used to have fewer undesirable side effects than it does today.
- D) Treating morning sickness has been the most frequent reason for the use of menthol.
- E) Europeans brought menthol to America, where it had already been used as a herbal remedy.

78 - 80. soruları aşağıda verilen parçaya göre cevaplayınız.

Corn was first created by the genius of native Americans - thousands of years ago from an annual grass that had an extraordinarily high natural mutation rate. There is nothing comparable to it among all the wild grasses; corn was created by farmers' careful seed selections over the millennia, and is still being thus 'created'. Corn is a space and soil/nitrogen hog, but it gives abundantly in return for what it gets. Corn is good for homesteaders because it can easily be grown on a small plot without draft animals or farm machinery. It is also a sensible crop to be ambitious about. It yields generously. You plant one kernel and get about 750 back. It can provide high-quality food for every man and beast on the place. A single corn plant can produce enough grain to feed a person for a day. It is a bread, it is a vegetable, it is a decoration. The husks can be made into paper, rope, or stuffing. The cobs provide fuel to burn. The stalks and leaves are as good as hay for winterfeeding.

78. It is clearly stated in the passage that native Americans ----.

- A) generated corn from a kind of a grass with quite a high natural mutation speed
- B) inspired the modern farmers to mutate wild grasses for new species
- C) initially failed to make use of corn as a fuel
- D) started a temporary cycle of mutation for wild grasses and corn
- E) selected various seeds to grow in different places of the world

79. It can be understood from the passage that growing corn ----.

- A) is a difficult task in achieving constant yield annually
- B) could be profitable only if it is done with fertile soil
- C) needs large farming areas because it is more efficient
- D) is advantageous for farmers since it offers high yields
- E) is more efficient in providing fuel than hay for winterfeeding

80. According to the passage, corn plants ----.

- A) can produce grain that has a higher nutritive value as compared to wheat
- B) will help many farmers to raise livestock by feeding them with corn cobs
- C) will need a lot of sunshine to grow kernels that could be used next year
- D) can naturally grow anywhere in the world
- E) offer various benefits and uses as well as having an important nutritional value

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1) A	2) E	3) D	4) D	5) C	6) D	7) B	8) C	9) C	10) E
11) A	12) B	13) C	14) D	15) D	16) D	17) A	18) E	19) D	20) C
21) C	22) A	23) D	24) E	25) B	26) E	27) C	28) A	29) B	30) D
31) E	32) D	33) E	34) C	35) A	36) A	37) C	38) C	39) B	40) C
41) D	42) A	43) D	44) A	45) A	46) B	47) B	48) D	49) A	50) A
51) C	52) C	53) C	54) A	55) B	56) C	57) D	58) B	59) B	60) E
61) C	62) B	63) B	64) A	65) D	66) A	67) E	68) D	69) C	70) A
71) B	72) B	73) D	74) C	75) B	76) C	77) A	78) A	79) D	80) E