

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

1. **Fear of large predators is pushing bobcats and coyotes into closer contact with humans, with ---- consequences.**
 - A) feasible
 - B) volatile
 - C) fatal
 - D) assertive
 - E) crucial
2. **Since no one has ever --- observed a real black hole,so we can never be sure that analogue black holes are a good guide to the real thing.**
 - A) appropriately
 - B) directly
 - C) defensively
 - D) remarkably
 - E) extensively
3. **A simple software upgrade could improve the ---- of wind turbines by ensuring that they face directly into the wind more of the time.**
 - A) depletion
 - B) efficiency
 - C) evolution
 - D) destruction
 - E) explanation
4. **Drawing energy from the sea surface and ---- its strength as long as it remains over warm water, a tropical cyclone generates winds that exceed 120 km per hour.**
 - A) maintaining
 - B) delivering
 - C) rehearsing
 - D) testifying
 - E) committing
5. **A climbing vine from West Africa can become a meat-eater when it doesn't get enough ---- from the soil.**
 - A) dependence
 - B) attribution
 - C) curiosity
 - D) nutrition
 - E) eligibility

6. **Decades before Steven Spielberg's Jaws (1975) convinced beachgoers not to go into the water, there was one fateful summer when a series of shark attacks - --- widespread panic and earned these giant fish a bad reputation for good.**
 - A) depended on
 - B) went through
 - C) led to
 - D) made of
 - E) caught up
7. **The boom and bust cycles of desert grasses in the US Southwest ---- to temperature patterns in the Pacific Ocean, but that link now seems ---- by climate change.**
 - A) were linked / to be breaking
 - B) are linked / to have been broken
 - C) had been linked / to be broken
 - D) have been linked / to break
 - E) would be linked / having been broken
8. **The first practical example of a new kind of computer ---- calculations in minutes that ---- a normal version longer than the age of the universe.**
 - A) can complete / would take
 - B) might complete / had taken
 - C) would complete / took
 - D) has to complete / has taken
 - E) is supposed to complete / is taking
9. **An ink that changes colour when exposed ---- light, like an octopus does to match its surroundings, could one day be used ---- automatic camouflage.**
 - A) by / from
 - B) behind / amid
 - C) from / in
 - D) above / at
 - E) to / for
10. **Studying interstellar objects ---- Earth could reveal new insights ---- the formation of distant star systems.**
 - A) onto / about
 - B) above / on
 - C) around / into
 - D) from / to
 - E) below / in

11. Genetically modified blood stem cells have increased the lifespan of mice ---- 20 per cent and could soon be tested ---- a human cancer treatment.
- A) of / from
B) at / for
C) off / into
D) by / in
E) in / through
12. There are now more than 800 breeds of cattle, ---- most breed organizations recognize only a small fraction of that number.
- A) before
B) because
C) though
D) until
E) unless
13. Bowhead whales, the world's longest-lived mammals, are seldom affected by cancer and this may partly be ---- their cells repair damaged DNA efficiently.
- A) as if
B) only if
C) although
D) by the time
E) because
14. Butterfly species with larger wingspans have expanded their range in high-latitude parts of North America as the climate has warmed, ---- smaller butterflies and those adapted to cold conditions have tended to decline.
- A) when
B) until
C) since
D) while
E) as soon as
15. Frost quakes – also known as ice quakes or cryoseisms – occur ---- a temperature rise makes snow melt, saturating soils with water.
- A) before
B) when
C) even if
D) whereas
E) unless
16. A massive volcanic eruption in Tonga last year was ---- powerful ---- it affected satellites on the other side of the world.
- A) neither / nor
B) either / or
C) so / that
D) more / than
E) not only / but also
17. Most airlines note that there is a chance that radio signals sent out from an electronic device could interfere with one or more of an aircraft's important systems, ---- sensors that help the aircraft's instruments communicate with one another.
- A) such as
B) despite
C) in contrast to
D) in terms of
E) as of
18. It was long thought that the red jungle fowl of India was the sole ancestor of the domestic chicken; ----, recent genetic analysis has revealed that the grey junglefowl contributed genes later in the domestication process.
- A) in addition
B) on the contrary
C) moreover
D) similarly
E) however
19. Red-lipped batfish are ---- dangerous, but they are clearly a product of an evolutionary nightmare.
- A) instead of
B) contrary to
C) owing to
D) by no means
E) in view of
20. Best-before labels are often poor predictors of when food becomes dangerous to eat, ---- can lead to waste and food poisoning.
- A) that
B) which
C) whom
D) what
E) who

21. - 25. sorularda, boş bırakılan yerlere uygun düşen sözcük ya da ifadeyi bulunuz.

Discovered in 2010, the yeti crab (Kiwa hirsuta) lives in thermal vents near Antarctica that reach temperatures of up to 380 °C. Their white colouring and strange hair patterns are thought to be adaptations **(21)** ---- these extreme environments. The thermal vents, **(22)** ---- ridiculously hot inside, are surrounded by freezing waters. This forces all the yeti crabs to **(23)** ---- themselves into a small area. Females, **(24)** ----, must venture into the dangerously cold waters to brood, as the thermal vents are too high in sulphur content for the crabs' eggs to survive. The mother yeti crab rarely survives the cold water, usually **(25)** ---- of starvation after her children hatch. As for those hairy arms, they are a garden of sorts, growing bacteria that the crab then feeds on.

21.

- A) for
C) from
E) onto
- B) to
D) over

22.

- A) while
C) unless
E) as soon as
- B) as
D) until

23.

- A) develop
C) pack
E) correspond
- B) assign
D) escalate

24.

- A) on the other hand
C) in addition
E) as a consequence
- B) hence
D) for instance

25.

- A) die
C) having died
E) to have died
- B) to die
D) dying

26. - 30. sorularda, boş bırakılan yerlere uygun düşen sözcük ya da ifadeyi bulunuz.

Mammals have certain **(26)** ---- that distinguish them from animals in other classes, such as fish, reptiles, and amphibians. All mammals share two characteristics: they all feed their young **(27)** ---- mammary gland milk, and they all have hair. Almost all of them are warm-blooded, which means they **(28)** ---- the inside of their bodies at a constant temperature. They do this by generating their own heat **(29)** ---- they are in a cooler environment and by cooling themselves in a hotter environment. **(30)** ---- reptiles, which sit in sunlight to regulate their body temperature, mammals wake up and are ready to go! In general, mammals spend much more time raising and training their young than other animals do.

26.

- A) equivalentents
C) traits
E) limitations
- B) deterrents
D) habitats

27.

- A) among
C) on
E) with
- B) over
D) in

28.

- A) may keep
C) are supposed to keep
E) would keep
- B) had to keep
D) can keep

29.

- A) only if
C) so that
E) unless
- B) when
D) because

30.

- A) Unlike
C) Owing to
E) Similar to
- B) Despite
D) In the name of

31. - 41. sorularda verilen cümleyi tamamlayabilecek seçeneği bulunuz.

31. **Recently, a message has been sent to Earth from a spacecraft orbiting Mars ----.**

- A) after which several telescopes orbiting the Earth picked the data
- B) so that a potential communication from an advanced civilisation can be simulated
- C) when another spacecraft was on its way to explore the rings of Saturn
- D) since NASA has just released a press bulletin stating that there is no life in space
- E) though the honour belongs to the Chinese, who did the first touchdown on the dark side of the Moon

32. **---- when they see an image of someone's face, which could explain why some babies become scared of strangers at around this age.**

- A) New research suggests that babies as young as 4 months old produce a distinct brain signal
- B) Infants may be able to identify people's face before anything else, such as cars or letters
- C) Measuring how seeing different objects relates to brain activity could one day help diagnose children with autism
- D) Babies between 12 and 15 months are able to identify letters
- E) Scientists underestimating the ability of vision in babies will be shocked to learn

33. **----, so scientists still don't know what the long-term effects of significant genetically modified food consumption could be.**

- A) Genetically modified crops can even be engineered to reduce natural allergens and toxins, making them safer and healthier
- B) Genetically modified crops lower the price of food and increase nutritional content, helping to alleviate world hunger
- C) Growing genetically modified crops leads to environmental benefits such as reduced pesticide use, less water waste, and lower carbon emissions
- D) Certain genetically modified crops harm the environment through the increased use of toxic herbicides and pesticides
- E) Genetically modified crops have not been proven safe for human consumption through human clinical trials

34. **Though virtually all new technologies, the Internet included, have been feared, ----.**

- A) many technologies considered commonplace today were thought to be extremely dangerous
- B) the telephone was feared to create a "race of left-eared people"
- C) worries about information overload are as old as information itself
- D) those fears have been proven to be largely unfounded
- E) calculators were once feared to destroy kids' grasp of math concepts

35. **Since humans have a right and a moral duty to save our species from suffering and extinction, ----.**

- A) a person has yet to set foot on Mars, and no space station has been built on another planet
- B) space colonization cannot be the next logical step in space exploration and human growth
- C) the idea of colonizing space for a prospective home for future humans is not unethical
- D) the idea that technological advancement into space can exist alongside conservation efforts on Earth is nonsense
- E) humans haven't even attempted to live in Antarctica or under Earth's seas, let alone space

36. **While there is an overwhelming scientific consensus that finds human activity primarily responsible for global warming, ----.**

- A) many scientists unanimously concur that human activity is primarily responsible for global climate change
- B) some scientists claim the 20th century rise in global temperature is within the bounds of natural temperature fluctuations over the past 3,000 years
- C) an examination of scientific papers that didn't agree that humans cause climate change found serious flaws and bias in their research
- D) rising levels of human-produced gases released into the atmosphere create a greenhouse effect that traps heat and causes global warming
- E) gases released into the atmosphere trap heat and cause the planet to warm through a process called the greenhouse effect

37. **Solar-powered balloons floating in the stratosphere have recorded low-frequency sounds, ----.**

- A) so many infrasound signals from the stratosphere don't have an obvious origin
- B) yet these mysterious signals could be related to types of atmospheric turbulence
- C) and infrasounds in the stratosphere have rarely been explored
- D) for the technology that is available is not adequate for further detection
- E) but these mysterious sounds in stratosphere can't be traced to any known source

38. ----, **although solutions to the problems and proofs of the theorems often require a sophisticated mathematical background.**

- A) Until the mid-20th century, number theory was considered the purest branch of mathematics
- B) The advent of digital computers and digital communications revealed that number theory could provide unexpected answers to real-world problems
- C) Many of the problems and theorems of number theory can be understood by laypersons
- D) Modern number theory is a broad subject that is classified into subheadings
- E) The theory of numbers is a vast and challenging subject as old as mathematics and as fresh as today's news

39. **Contrary to the common belief that dogs eat grass when they have a sore stomach, ----.**

- A) some surveys show up to 80% of guardians notice their dog regularly snacking on the grass
- B) it has been proven that they eat grass before they have their meal, meaning when they are hungry
- C) it is not similar to the way cats eat grass, which is on a regular basis
- D) other theories claim that dogs avoid eating grass because they don't need a laxative
- E) you may even notice they prefer grass in certain seasons, in spring for example

40. **It is disturbing to see that the human desire to light up the quiet night sky with fireworks explosions still continues ----.**

- A) despite their dire effects on vulnerable people, other species and our shared environment
- B) as individual actions aren't enough to mitigate the effects of fireworks on wild animals
- C) as long as governments ensure that celebrations consider only the well-being of humans
- D) and some communities are taking action and exploring alternatives to conventional fireworks
- E) when researchers expect that millions of birds are affected around the world

41. **While human aggression is a naturally evolved phenomenon we have in common with other animals, ----.**

- A) aggressive behaviour has evolved in species in which it increases an individual's survival or reproduction
- B) emotions – including revenge, spite, happiness, anger – must have evolved because most of the time they motivate fitness-enhancing behaviours
- C) natural selection didn't just shape a fixed behaviour, it shaped the norm of reaction – the nature of the response
- D) the difference between human and animal violence comes down to the complexity of the emotion driving it
- E) humans are unique in the complexity of their social relationships and their highly developed social intelligence

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

42. Chimpanzees have shown they can help strangers without apparent expectation of personal gain, which is a level of selfless behavior often claimed as unique to humans.

- A) Şempanzeler, görünürde kişisel kazanç beklentisi olmadan yabancılara yardım edebildiklerini göstererek sıklıkla insanlara özgü olduğu iddia edilen bir diğerkâm davranış seviyesine ulaşmıştır.
- B) Şempanzeler, görünürde kişisel kazanç beklentisi olmadan yabancılara yardım edebildiklerini göstermişlerdir, ki bu da sıklıkla insanlara özgü olduğu iddia edilen bir diğerkâm davranış seviyesidir.
- C) Şempanzeler, sıklıkla insanlara özgü olduğu iddia edilen bir diğerkâm davranış seviyesine ulaşarak görünürde kişisel kazanç beklentisi olmadan yabancılara yardım edebildiklerini göstermişlerdir.
- D) Şempanzeleri diğer primatlardan ayıran şey, görünürde kişisel kazanç beklentisi olmadan yabancılara yardım edebildiklerini göstermeleridir, ki bu da sıklıkla insanlara özgü olduğu iddia edilen bir diğerkâm davranış seviyesidir.
- E) Şempanzeler, sıklıkla insanlara özgü olduğu iddia edilen bir diğerkâm davranış seviyesine ulaşmışlar ve görünürde kişisel kazanç beklentisi olmadan yabancılara kolayca yardım edebildiklerini göstermişlerdir.

43. For humans, who can only perceive the macroscopic world, or what's visible to the naked eye, quantum mechanics can seem counterintuitive and somewhat magical.

- A) Bazı insanlar, sadece makroskobik dünyayı ya da çıplak göze görünür olan şeyleri algılayabilir ve bu yüzden kuantum mekaniği onlara mantığa aykırı ya da bir miktar sihirli görünebilir.
- B) Sadece makroskobik dünyayı ya da çıplak göze görünür olan şeyleri algılayabilen insanlar için kuantum mekaniği mantığa aykırı ya da bir miktar sihirli görünebilir.
- C) Kuantum mekaniğinin sadece makroskobik dünyayı algılayabilen insanlara mantığa aykırı ya da bir miktar sihirli görünmesinin sebebi, onların yalnızca çıplak göze görünür olan şeyleri görebilmesidir.
- D) Yalnızca çıplak göze görünen nesnelere görebilen insanlara kuantum mekaniği mantığa aykırı ya da bir miktar sihirli görünebilir; bunun sebebi de onların sadece makroskobik dünyayı algılayabilmesidir.
- E) Bazı insanlar, sadece makroskobik dünyayı ya da çıplak göze görünür olan şeyleri algılayabildikleri için kuantum mekaniği onlara mantığa aykırı ya da bir miktar sihirli görünebilir.

44. For some people, the term "black box" brings to mind the recording devices in airplanes that are valuable for postmortem analyses if the aircraft crashes, but black box is also an important term in the world of artificial intelligence.

- A) Bazı insanlar için "kara kutu" terimi, uçak düşerse otopsi analizleri için değerli olan uçaklardaki kayıt cihazını akla getirmesine rağmen kara kutu yapay zekâ dünyasında da önemli bir terimdir.
- B) "Kara kutu" terimi, bazı insanlara uçak düşerse otopsi analizleri için değerli olan uçaklardaki kayıt cihazını hatırlatabilir ancak kara kutu yapay zekâ dünyasında da önemli bir terimdir.
- C) Bazı insanlar için "kara kutu" terimi, uçağın düşmesi durumunda otopsi analizleri için değerli olan uçaklardaki kayıt cihazı ile doğrudan alakalıdır ama kara kutu yapay zekâ dünyasında da önemli bir terimdir.
- D) Bazı insanlar için "kara kutu" terimi, uçak düşerse otopsi analizleri için değerli olan uçaklardaki kayıt cihazını akla getirir ama kara kutu yapay zekâ dünyasında da önemli bir terimdir.
- E) "Kara kutu" teriminin bazı insanların aklına getirdiği şey, uçak düşerse otopsi analizleri için değerli olan uçaklardaki kayıt cihazı olsa da kara kutunun yapay zekâ dünyasında da önemli bir yeri vardır.

45. Human DNA can be obtained from small amounts of water, sand and air to potentially extract identifiable information like genetic lineage, gender, and health risks, according to new research.

- A) Yeni bir araştırma, insan DNA'sının potansiyel olarak genetik köken, cinsiyet ve sağlık riskleri gibi tanımlanabilen bilgileri almak için az miktarda su, kum ve havadan elde edilebileceğini göstermiştir.
- B) Yeni bir araştırmanın ortaya koyduğu şey, insan DNA'sının potansiyel olarak genetik köken, cinsiyet ve sağlık riskleri gibi tanımlanabilen bilgileri almak için az miktarda su, kum ve havadan elde edilebileceğidir.
- C) Yeni bir araştırmaya göre insan DNA'sı, potansiyel olarak genetik köken, cinsiyet ve sağlık riskleri gibi tanımlanabilen bilgileri almak için az miktarda su, kum ve havadan elde edilebilir.
- D) Yeni bir araştırma sayesinde insan DNA'sının potansiyel olarak genetik köken, cinsiyet ve sağlık riskleri gibi tanımlanabilen bilgileri almak için az miktarda su, kum ve havadan elde edilebileceğini artık biliyoruz.
- E) İnsan DNA'sının potansiyel olarak genetik köken, cinsiyet ve sağlık riskleri gibi tanımlanabilen bilgileri almak için az miktarda su, kum ve havadan elde edilebileceğini yeni bir araştırmaya dayanarak söyleyebiliyoruz.

46. The increasing frequency of deadly heatwaves could halt or even reverse India's progress in reducing poverty, food and income security and gender equality.

- A) Ölümcül sıcak hava dalgalarının giderek artan sıklığı, Hindistan'ın fakirliği azaltma, yiyecek ve gelir güvenliği ve cinsiyet eşitliğindeki ilerlemesini durdurabilir ya da tersine bile döndürebilir.
- B) Ölümcül sıcak hava dalgalarının sıklığı giderek artmaya devam ederse Hindistan'ın fakirliği azaltma, yiyecek ve gelir güvenliği ve cinsiyet eşitliğindeki ilerlemesi durabilir ya da tersine bile dönebilir.
- C) Ölümcül sıcak hava dalgalarının sıklığının giderek artması, Hindistan'ın fakirliği azaltma, yiyecek ve gelir güvenliği ve cinsiyet eşitliğindeki ilerlemesinin durması ya da tersine bile dönmesi anlamına gelebilir.
- D) Ölümcül sıcak hava dalgalarının sıklığı arttıkça bu durum, Hindistan'ın fakirliği azaltma, yiyecek ve gelir güvenliği ve cinsiyet eşitliğindeki ilerlemesini durdurabilir ya da tersine bile döndürebilir.
- E) Ölümcül sıcak hava dalgalarının sıklığının giderek artmasıyla Hindistan'ın fakirliği azaltma, yiyecek ve gelir güvenliği ve cinsiyet eşitliğindeki ilerlemesi durabilir ya da tersine bile dönebilir.

47. Using a brain implant that can record neural signals over six months, a research team has discovered objective biomarkers of chronic pain severity in four patients with chronic pain as they went about their daily lives.

- A) Bir araştırma ekibi, altı ay boyunca nöral sinyalleri kaydedebilen bir beyin protezini kullanarak kronik ağrısı olan dört hastada onlar günlük hayatlarına devam ederken kronik ağrı şiddetinin nesnel biyo-işaretlerini keşfetti.
- B) Bir araştırma ekibinin keşfettiği şey, altı ay boyunca nöral sinyalleri kaydedebilen bir beyin protezini kullanarak kronik ağrısı olan dört hastada onlar günlük hayatlarına devam ederken kronik ağrı şiddetinin nesnel biyo-işaretleriydi.
- C) Altı ay boyunca nöral sinyalleri kaydedebilen bir beyin protezini kullanan bir araştırma ekibi, kronik ağrısı olan dört hastada onlar günlük hayatlarına devam ederken kronik ağrı şiddetinin nesnel biyo-işaretlerini keşfetmiş olabilir.
- D) Kronik ağrı şiddetinin nesnel biyo-işaretlerinin keşfedilmesi, bir araştırma ekibinin kronik ağrısı olan dört hastayı onlar günlük hayatlarına devam ederken altı ay boyunca nöral sinyalleri kaydedebilen bir beyin protezini kullanmasıyla mümkün oldu.
- E) Bir araştırma ekibi, altı ay boyunca nöral sinyalleri kaydedebilen bir beyin protezini kullanmayı akıl ettiği için kronik ağrısı olan dört hastada onlar günlük hayatlarına devam ederken kronik ağrı şiddetinin nesnel biyo-işaretlerini keşfetti.

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

48. Geçtiğimiz birkaç on yılda bilim insanları, protein katlamadan genetik mühendisliğine gittikçe küçük ölçeklerde biyolojik sistemleri anlama ve kullanma konusunda inanılmaz bir ilerleme kaydetmiştir.

- A) What scientists have made over the past few decades is an incredible progress in understanding and manipulating biological systems at increasingly small scales, from protein folding to genetic engineering.
- B) Over the past few decades, incredible progress has been made in understanding and manipulating biological systems at increasingly small scales, from protein folding to genetic engineering.
- C) The progress scientists have made in understanding and manipulating biological systems at increasingly small scales, from protein folding to genetic engineering has been incredible over the past few decades.
- D) One of the incredible things over the past few decades has been the progress in understanding and manipulating biological systems at increasingly small scales, from protein folding to genetic engineering.
- E) Over the past few decades, scientists have made incredible progress in understanding and manipulating biological systems at increasingly small scales, from protein folding to genetic engineering.

49. Asfalt sadece betondan genellikle daha ucuz değildir; aynı zamanda asfalt yollar diğer materyallerle döşenen yollardan daha çabuk bitirilir ve trafiğe açılabilir.

- A) Asphalt is generally less costly than concrete; besides, asphalt roads can be finished and opened for traffic more quickly than roads paved with other materials.
- B) Not only is asphalt generally cheaper than concrete, but asphalt roadways can be finished and opened for traffic more quickly than roads paved with other materials.
- C) Asphalt not only tends to be more cost-effective than concrete, but it also allows for quicker completion and opening of roadways for traffic compared to other paving materials.
- D) Besides being more cost-effective than concrete, asphalt also enables quicker completion and opening of roadways for traffic when compared to other paving materials.
- E) Both cost-effectiveness and the ability to facilitate faster completion and opening of roadways for traffic distinguish asphalt from concrete and other paving materials.

50. Birçok sonradan getirilen tür gibi Atlantik'teki aslan balığı da Indo-Pasifik'te sayılarını kısıtlayan yırtıcılık, hastalık ve asalaklık gibi doğal nüfus kontrolü mekanizmaları ile karşılaşmaz.

- A) Similar to other introduced species, lionfish in the Atlantic lack natural population control mechanisms, such as predation, disease, and parasitism, which typically restrict their population size in the Indo-Pacific.
- B) Many introduced species, as well as lionfish, in the Atlantic do not face natural population control mechanisms, such as predation, disease, and parasitism, which typically restrict their population size in the Indo-Pacific.
- C) As with many introduced species in the Atlantic, lionfish lives without natural population control mechanisms such as predation, disease and parasitism that limit their numbers in the Indo-Pacific.
- D) Like many introduced species, lionfish in the Atlantic don't face natural population control mechanisms such as predation, disease and parasitism that limit their numbers in the Indo-Pacific.
- E) Not only other introduced species, but also lionfish are free from natural population control mechanisms such as predation, disease and parasitism in the Atlantic.

51. Yeni bir araştırma, Kuzey ve Güney Yarımküredeki aerosol kirletenleri yoğunlaşmasındaki farkların kirleten seviyeleri artmaya devam ederse rüzgar düzenlerini ve musonları bozabileceğini göstermektedir.

- A) New research shows differences in concentration of aerosol pollutants between Northern and Southern hemispheres could disrupt wind patterns and monsoons if pollutant levels keep increasing.
- B) The observed disparities in aerosol pollution levels between the Northern and Southern hemispheres, as indicated by recent research, could potentially disrupt wind patterns and monsoons.
- C) Recent research reveals that the discrepancies in aerosol pollutant concentration between the Northern and Southern hemispheres have the potential to disturb wind patterns and monsoons.
- D) What new research shows is that shows differences in concentration of aerosol pollutants between Northern and Southern hemispheres could disrupt wind patterns and monsoons if pollutant levels keep increasing.
- E) Recent research has revealed that the discrepancies in concentration of aerosol pollutants between the Northern and Southern hemispheres possess the capacity to disturb wind patterns and monsoons.

52. Bazı teknoloji şirketleri kendi deneylerini durdursalar bile diğer şirketlerin kendi yapay zeka araştırmalarını devam ettirmede mali çıkarları olabilir, ki bu da onların yarışta öne geçmesine izin verir.

- A) Some tech companies' halting their experiments would mean that other companies will have a monetary interest in continuing their own Artificial Intelligence research, allowing them to get ahead in the race.
- B) Some tech companies might halt their experiments, but then others will have a monetary interest in continuing their own Artificial Intelligence research, which might allow them to get ahead in the race.
- C) Even if some tech companies halted their experiments, other companies would have a monetary interest in continuing their own Artificial Intelligence research, allowing them to get ahead in the race.
- D) That some tech companies have halted their experiments will work for the advantage of other companies, which will have a monetary interest in continuing their own Artificial Intelligence research.
- E) If it weren't for some tech companies that halted their experiments, other companies wouldn't have been able to get ahead in the race for Artificial Intelligence research, which they continued for monetary interests.

53. 19. Yüzyılın başlarında Avrupa ve ABD'deki bilim insanları, elektrik ve manyetizma arasındaki ilişkiyi araştırdılar ve araştırmaları çok geçmeden elektromanyetik olayların pratik uygulamaları ile sonuçlandı.

- A) In the early 19th century, scientists in Europe and the USA explored the relationship between electricity and magnetism, and their research soon led to practical applications of electromagnetic phenomena.
- B) During the early 19th century, scientists from Europe and the USA delved into investigating the correlation between electricity and magnetism, which eventually paved the way for the practical utilization of electromagnetic phenomena.
- C) The early 19th century scientists in Europe and the USA delved into the connection between electricity and magnetism, which eventually resulted in the practical utilization of electromagnetic phenomena through their research.
- D) The exploration of the relationship between electricity and magnetism by scientists in Europe and the USA in the early 19th century soon paved the way for practical applications of electromagnetic phenomena.
- E) The investigation carried out by scientists in Europe and the USA during the early 19th century on the relationship between electricity and magnetism swiftly laid the foundation for practical applications of electromagnetic phenomena.

54. - 59. sorularda paragrafta verilen boşluğa anlam bütünlüğünü sağlamak için getirilebilecek cümleyi bulunuz.

54. Flies and mosquitoes both belong to *Diptera*, the group of insects that have only two wings (from the Greek *di* meaning two and *pteron* meaning wing). ---- In fact, we should open our eyes to their enormous economic and environmental importance. For example, many plants (including the cacao plant that gives us chocolate) rely on *Diptera* as pollinators. Or try to imagine a world without flies to decompose dead animals.

- A) On the other hand, they revolutionised biological and medical science.
- B) Nevertheless, *Drosophila* may be smaller than a fingernail but it can be a big nuisance in summer.
- C) However, we should not judge flies for their negative behaviour alone.
- D) Thus, science's partnership with flies started during the early 1900s when biologist Thomas Hunt Morgan decided to test evolutionary theories.
- E) Eventually, mechanisms or processes discovered in flies often turned out to apply to more complex organisms.

55. When people consider extraordinary plants, most probably don't spare a thought for moss. It blends in against the green background of plant life, and seems to grow everywhere – whether you want it to or not. Many assume that there is only one kind of moss. ---- Their almost unique resilience allows them to grow practically everywhere on Earth. They are helping scientists understand the evolution of life, and are one of the most ancient plant groups alive today.

- A) But this group of plants, which actually comprises between 12,000 and 15,000 species, is astonishing.
- B) So, mosses are the lifeblood of habitats around the world, with plants and soil in better shape almost everywhere they grow.
- C) Despite their importance, mosses are often overlooked due to their diminutive size.
- D) The contributions of mosses to the structure and function of ecosystems are overlooked, lagging behind our understanding of more complex plants.
- E) Some types of moss, including the *Sphagnum* species, absorb and hold water in their tissues.

56. For the first time, researchers have managed to use GPT1, precursor to the AI chatbot ChatGPT, to translate MRI imagery into text in an effort to understand what someone is thinking. This recent breakthrough allowed researchers at the University of Texas at Austin to "read" someone's thoughts as a continuous flow of text, based on what they were listening to, imagining or watching. ---- Our laws are not equipped to deal with the widespread commercial use of mind-reading technology – freedom of speech law does not extend to the protection of our thoughts.

- A) Participants in the Texas study were asked to listen to audiobooks for 16 hours while inside an MRI scanner.
- B) According to the researchers, the process was labour intensive and the computer only managed to get the gist of what someone was thinking.
- C) The study participants had to cooperate to both train and apply the decoder, so that the privacy of their thoughts was maintained.
- D) It raises significant concerns for privacy, freedom of thought, and even the freedom to dream without interference.
- E) Researchers have been working for decades on brain-machine interfaces in a race to create mind-reading technologies.

57. The origin of life is a central question in modern biology, and probably the hardest to study. This event took place four billion years ago, and it happened at a molecular level – meaning little fossil evidence remains. ---- But the current scientific consensus is that life emerged from non-living molecules in a natural process called abiogenesis, most likely in the darkness of deep-sea hydrothermal vents.

- A) From its humble origins, life forms have spread all over the entire planet with endless beautiful species and offered food and shelter to us.
- B) No clear evidence was left behind other than the existence of life itself.
- C) Once an information system can make copies of itself, natural selection kicks in.
- D) Earth is known to host a number of self-replicating molecules.
- E) Many living beginnings have been suggested, from primordial soups to a living bacteria coming from outer space.

58. Human history is intimately entwined with the use and control of fire. ---- This is partly due to the incomplete nature of archaeological records, and also because fire use was fleeting, making burnt remains difficult to detect. But a research team has found evidence of the controlled use of fire by direct human ancestors – or hominins – at a site in Spain dating to 250,000 years ago. This pushes the earliest evidence of fire control in Europe back by 50,000 years.
- A) Thus, the controlled use of fire is where humans intentionally start it and then manage its extent or temperature.
- B) However, working out when our relationship with fire began and how it subsequently evolved has been notoriously difficult.
- C) Still, much older evidence from outside Europe comes from Swartkrans cave in South Africa.
- D) Yet finding hominin artefacts and burnt bones at the same site does not indicate that they coincided in time.
- E) Indeed, there is a concurrent rise in apparent prehistoric fireplaces and burnt "artefacts."

59. Saturn's rings are one of the jewels of the solar system, but it seems that their time is short and their existence fleeting. A new study suggests the rings are between 400 million and 100 million years old – a fraction of the age of the solar system. ---- Research also reveals that they could be gone in another 100 million years.
- A) The rings are visible to anyone with a decent pair of binoculars or a modest back garden telescope.
- B) Occasionally, you can see them entering the Earth's atmosphere at night as shooting stars.
- C) This means we are just lucky to be living in an age when the giant planet has its magnificent rings.
- D) The rings extend from some 2,000km above Saturn's cloud tops to about 80,000km away.
- E) This also means that the rings did not form at the same time as Saturn or the other planets.

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

60. (I) Artificial intelligence is commonly integrated into smartphones and other household devices. (II) Virtual assistants, including Siri, Alexa, and Cortana, can perform innumerable tasks from making a phone call to navigating the internet. (III) Those who are deaf and hearing impaired can access transcripts of voicemails or other audio, for example. (IV) 48% of experts believe artificial intelligence will replace a large number of blue- and even white-collar jobs, creating greater income inequality and increased unemployment. (V) Other virtual assistants can transcribe conversations as they happen, allowing for more comprehension and participation by those who are communicationally challenged.

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

61. (I) Animal dissections became part of American K-12 school curricula in the 1920s. (II) Dissecting a frog might be one of the most memorable school experiences for many students, whether they are enthusiastic participants, prefer lab time to lectures, or are conscientious objectors to dissection. (III) About 75-80% of North American students will dissect an animal by the time they graduate high school. (IV) An estimated six to 12 million animals are dissected in American schools each year. (V) In at least 21 states and DC, K-12 students have the legal option to request an alternate assignment to animal dissection.

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

62. (I) Scientists in Israel recorded brief pulses of sound coming from tobacco and tomato plants in a greenhouse. (II) They happened more often when the plants had not been watered or at times when they were losing large amounts of water from their leaves. (III) Although it is nice to think plants were sending each other messages about a water shortage through sound, this may not have been the case. (IV) The sounds were about as loud as a quiet conversation but were mostly between 40,000Hz and 60,000Hz, which is too high pitched for human hearing which only goes up to about 20,000Hz. (V) However, they should be audible by dogs, who can hear up to 45,000Hz, or cats, whose hearing goes all the way up to 64,000Hz.

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

63. (I) Studies of bee feeding patterns in cities, where much of their original food sources have been covered with concrete and tarmac, show a shift in their wild, diverse diet to one dominated by dandelions, clover and brambles. (II) Dandelions are an abundant source of nectar and pollen for bees flying around an environment in which the diversity of food options continues to shrink. (III) These plants grow in very little soil, flower from early spring to just before winter and offer sustenance for bees all year round. (IV) Most see dandelions as "weeds": they don't want them around their house and will reach for the lawnmower, or worse still, a can of weed killer, when one dares to rear its yellow head. (V) What makes dandelions so successful in feeding a wide variety of pollinators is the shape of their flowers.

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

64. (I) We carry them everywhere, take them to bed, to the bathroom and for many people they're the first thing they see in the morning – more than 90% of the world owns or uses a mobile phone and many of us couldn't manage without one. (II) But while health concerns about phones use usually focus on the distraction they can cause while driving, the possible effects of radiofrequency exposure, or just how addictive they can be, the microbial infection risk your phone poses is much less appreciated. (III) A 2019 survey found that most people in the UK use their phones on the toilet. (IV) Thus, it is not surprising to discover studies have found our mobile phones to be dirtier than toilet seats. (V) It has been estimated that people touch their phone hundreds if not thousands of times a day.

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

65. (I) When thinking of animals that live in the most extreme environments on Earth most of us probably don't think of the snailfish. (II) It is common for up to 50% of all species (and sometimes almost 95%) sampled on a single deep-ocean expedition to be new to science. (III) Its name may not hint at extraordinary physical capabilities but the snailfish has broken the record for living at the deepest ocean depths known to humanity. (IV) In fact, scientists believed it was physiologically impossible for fish to survive conditions below 8,200 metres, which was refuted when Australian and Japanese researchers found one at a record-shattering 8,336 metres in the Izu-Ogasawara Trench, south of Japan. (V) That is 158 metres deeper than the previous record, also set by a snailfish during an encounter in 2017 in the Marianas Trench, about 2,000km east of the Philippines.

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

66. - 68. soruları aşağıdaki parçaya göre cevaplayınız.

In 1798, British physicist Henry Cavendish became the first person to accurately determine the mass of Earth. His painstakingly conducted experiment calculated the density of Earth and thus the value of G, the universal gravitational constant first proposed by Isaac Newton in 1687. While mass and weight are not interchangeable (weight is variable, while mass is constant), Cavendish's "weighing the world" experiment yielded a result of approximately 6 sextillion tons. The total mass of Earth's atmosphere is about 5.5 quadrillion tons, or roughly one millionth of Earth's mass. Earth's atmosphere extends from its ocean, land, and ice-covered surface outward into space, and its density is greatest close to the surface, because the gravitational attraction of the planet pulls the gases and aerosols, which are microscopic suspended particles of dust, soot, smoke, or chemicals, inward. Air is heavier, and thus easier to breathe at sea level, since the air molecules sit close together, compressed by the weight of air from above. As elevation increases, however, air molecules spread farther apart, and the air becomes lighter.

66. It is implied in the passage that before Henry Cavendish, ----.

- A) people had never attempted to calculate the mass of the Earth
- B) there were inaccurate attempts at determining the mass of the Earth
- C) scientists were able to calculate the mass of the Earth's atmosphere
- D) people had not shown any interest in the weight of our planet
- E) Isaac Newton had successfully calculated the density of the Earth

67. According to the passage, the total mass of Earth's atmosphere ----.

- A) is much more than one million times that of Earth's mass
- B) accumulates at the uppermost level of Earth's atmosphere
- C) determines how easy or how difficult to breathe for humans at different elevations
- D) excludes microscopic suspended particles of dust, soot, smoke, or chemicals
- E) weighs a lot, but still a negligible proportion of Earth's mass

68. We learn from the passage that the atmosphere's density being closest to the surface ----.

- A) was first identified by Henry Cavendish, but often attributed to Isaac Newton
- B) explains why people cannot breathe comfortably at low elevations
- C) means we can breathe more easily at sea level or lower altitudes
- D) is the reason why Earth's mass is a lot heavier than that of the atmosphere
- E) is mainly due to the fact that mass and weight are not interchangeable

69. - 71. soruları aşağıdaki parçaya göre cevaplayınız.

Many climate scientists define the start of summer in terms of meteorological phenomena and the calendar year. They claim that the meteorological summer season starts on June 1 and lasts three months, until September 1. Other people define the beginning of summer in academic terms – as the end of the school year. In astronomical terms, the start of summer can be defined very precisely: it begins on the summer solstice, which occurs on June 20 or 21 in the Northern Hemisphere and on December 21 or 22 in the Southern Hemisphere. On the summer solstice in the Northern Hemisphere, the path of the Sun in the sky hits its northernmost point. The summer solstice occurs in the Southern Hemisphere when the Sun reaches its southernmost point. Either position maximizes the hours of daylight in the hemisphere where it occurs, making the summer solstice the longest day of the year. On the summer solstice in June, Earth reaches a point in its orbit around the Sun at which the North Pole tilts most directly toward the Sun, at an angle of about 23.4°. Likewise, on the summer solstice in December, the South Pole tilts most directly toward the Sun. Astronomical summer lasts from the date of the summer solstice until the autumnal equinox, which occurs in the Northern Hemisphere on September 22 or 23 and in the Southern Hemisphere on March 20 or 21.

69. The passage makes it clear that ----.

- A) summer starts on different days for different groups of people
- B) summer starts in the Northern hemisphere on December 21 or 22
- C) academics believe summer begins on June 1 and lasts until September 1
- D) the North Pole tilts most directly toward the Sun at autumnal equinox
- E) the discussions as to when summer starts are not relevant to science

70. Which of the following is true about the summer solstice that occurs in the Southern Hemisphere?

- A) It takes place on June 20 or 21.
- B) It ends on March 20 or 21.
- C) It takes place on December 21 or 22.
- D) It comes to an end on September 22 or 23.
- E) It starts on different times according to different people.

71. What is the main purpose of the passage?

- A) To compare and contrast the different times offered by meteorologists and astronomers for the start of summer
- B) To refute the explanation offered by other people for the start time of summer
- C) To prove that the summertime specified by astronomers is the correct one – not the other alternatives
- D) To inform the reader about the different starting times of summer, with the focus on astronomical terms
- E) To criticize the fact that there are at least three different start times for summer in different parts of the world

72. - 74. soruları aşağıdaki parçaya göre cevaplayınız.

Organic farming is a sustainable agricultural system that uses ecologically based pest controls and biological fertilizers that are derived largely from animal and plant wastes and nitrogen-fixing cover crops. Modern organic farming was developed as a response to the environmental harm caused by the use of chemical pesticides and synthetic fertilizers in conventional agriculture, and it has numerous ecological benefits. Compared with conventional agriculture, organic farming uses fewer pesticides, reduces soil erosion, decreases nitrate leaching into groundwater and surface water, and recycles animal wastes back into the farm. These benefits are counterbalanced by higher food costs for consumers and generally lower yields. Indeed, yields of organic crops have been found to be about 25 percent lower overall than conventionally grown crops, although this can vary considerably depending upon the type of crop. The challenge for future organic agriculture will be to maintain its environmental benefits, increase yields, and reduce prices while meeting the challenges of climate change and an increasing world population.

72. Which of the following is not an ecological benefit of organic farming?

- A) Employing reduced pesticide usage
- B) Mitigating soil erosion
- C) Yielding lower crops in general
- D) Minimizing nitrate runoff into groundwater and surface water
- E) Reutilizing animal waste within the farm ecosystem

73. According to the passage, conventional farming ----.

- A) brings about higher yields than organic farming
- B) will have a challenging future due to soil erosion
- C) is as harmful to the soil as organic farming
- D) relies heavily on recycled animal waste
- E) has yields 25 percent lower than organic farming

74. What is the passage mainly about?

- A) The difference between organic farming and conventional farming
- B) Organic farming, with a focus on its advantages and disadvantages
- C) Why yields are much lower in organic farming practices
- D) The ways in which yields in organic farming can be increased in the future
- E) A comprehensive account of organic farming practices

75. - 77. soruları aşağıdaki parçaya göre cevaplayınız.

Zombie computer is the name given to a computer or personal computer connected to the Internet and taken over by a computer worm, virus, or other "malware." Groups of such machines, called botnets (from a combination of robot and network), often carry out criminal actions without their owners' detecting any unusual activity. Over time, however, most zombie computers accumulate so much malware that they become unusable by their owners. Often, the only cure for heavily infected machines is to completely erase the hard drive and reinstall the operating system. There are millions of zombie computers in the world, about one-fourth of them located in the United States. The most typical use of botnets is for widely disseminating spam (unwanted commercial e-mail), which makes it difficult to determine the original spammer. Cybercrime experts believe that 50–80 percent of all spam is generated by botnets. Similarly, botnets are used to transmit phishing scams, which seek to extract personal data from unwary individuals. Occasionally, botnets are used to launch denial of service attacks on World Wide Web sites, effectively shutting them down. Although criminals have sometimes tried to extort money from Web site administrators with threats of continual denial of service attacks, such attacks more often are based on some political, environmental, or religious motivation.

75. It can be concluded from the passage anyone with a personal computer ----.

- A) knows what botnets are and for what purposes they are used
- B) is aware that they will definitely be the target of denial of service attacks
- C) could have become a cybercrime expert if they had put their mind to it
- D) might have had their computer taken over by a computer worm
- E) will know that they will have to erase their hard drive one way or the other

76. Which of the following is true about denial of service attacks according to the passage?

- A) People think they won't suffer from them unless they are politicians.
- B) They start with things that seem relatively innocent, such as spam.
- C) They can serve the doers by helping them extract personal data from careless individuals.
- D) Different from other illegal attacks, their sole purpose is to extort money.
- E) They are mostly performed due to political, environmental, or religious reasons.

77. According to the passage, the United States ----.

- A) is the place where most cyber-attacks take place
- B) holds a considerable number of zombie computers
- C) is the center of denial of service attacks
- D) has a great network of cybercrime experts
- E) leads the world in terms of the number of zombie computers

78. - 80. soruları aşağıdaki parçaya göre cevaplayınız.

Like carbon dioxide (CO₂), N₂O can absorb infrared radiation from the Sun, but its structure allows it to do so much more efficiently. Its potency as a greenhouse gas is about 300 times that of carbon dioxide. So the cans of whipped cream and the small canisters containing the gas have a surprising 'carbon footprint'. Each can or canister contains just eight grams of N₂O. But when released into the atmosphere this has the equivalent effect of 2.4 kilograms of CO₂, which is about the amount emitted from driving an SUV for ten miles. The concentration of N₂O in the atmosphere is very low, about a thousand times lower than CO₂. But, like CO₂, N₂O levels are on the rise. Despite these low concentrations, N₂O's potency means it still has a significant effect on the climate. It is the third most damaging greenhouse gas and is responsible for about 6% of the warming we are observing today (methane is the second, accounting for 10%). Unfortunately N₂O's impact doesn't stop there. N₂O is now the main threat to the ozone layer since CFC chemicals were banned in the 1980s. Once N₂O is released at ground level it takes about 100 years to migrate to the stratosphere where UV light catalysis its conversion to nitric oxide (NO). This then reacts with ozone (O₃), forming another pollutant - nitrogen dioxide (NO₂), and molecular oxygen (O₂) - which already makes up 21% of the atmosphere.

78. Why is N₂O considered a threat to the atmosphere?

- A) It takes about 100 years to migrate to the stratosphere.
- B) It is already the third main pollutant and its potential to do harm is much higher than that of CO₂.
- C) Its effects are negligible when compared to those of CO₂.
- D) Its carbon footprint is surprisingly lower than that of methane.
- E) Its concentration in the atmosphere is about a thousand times lower than CO₂.

79. According to the passage, though a canister of whipped cream contains only 8 grams of N₂O, ----.

- A) it should be kept in a place where the release of N₂O can be ensured by a specialist team
- B) the N₂O in the container can absorb infrared radiation from the Sun
- C) when released to the atmosphere it has the equivalent effect of 2.4 kilograms of CO₂
- D) it covers only a little space or mass in the atmosphere
- E) when harnessed the N₂O in the container can move an SUV for ten miles

80. The passage is mainly about ----.

- A) what N₂O is and how it is potentially dangerous for the atmosphere and climate
- B) the potential damage N₂O has inflicted on the ozone layer to date
- C) a comparison between N₂O and CO₂ in terms of the damage they will inflict on the atmosphere
- D) how scientists can solve the potential hazards posed by N₂O and CO₂
- E) the possibility of banning canisters and cans containing N₂O