

1-6: For these questions, choose the best word or expression to fill the space.

1. The term commonly used to refer to the age range between 40 and 60 is "middle age" or "middle-aged", which is often characterized by a ---- of personal and professional stability, as well as potential physical and health changes associated with aging.
  - A) assertion
  - B) combination
  - C) convention
  - D) evolution
  - E) transition
2. With vast caches of oil and gas, Turkmenistan is home to ---- industrial zones, which in turn causes more methane – a potent greenhouse gas – to seep into the atmosphere.
  - A) countless
  - B) dominant
  - C) humble
  - D) dependable
  - E) memorable
3. Businesses are increasingly committing to ambitious ---- pledge, yet what that means is complicated and opaque, and so some companies are struggling to make a clear action plan to secure their and thus our future.
  - A) accumulation
  - B) consultation
  - C) bureaucracy
  - D) sustainability
  - E) footage
4. The Swiss have been adept at ---- the mountains for centuries, with cable-cars, tunnels and high-elevation railways giving easy access to peaks and historic towns.
  - A) preserving
  - B) reducing
  - C) navigating
  - D) extracting
  - E) exploding

5. Consuming highly processed foods that are excessively rich in salt, sugar, and fat – and are both affordable and ---- available – might increase the likelihood of experiencing anxiety, depression, and cognitive decline.
  - A) optimally
  - B) desperately
  - C) respectively
  - D) figuratively
  - E) readily
6. It is challenging to ---- the long-term effects of environmental pollution, but comprehensive research is essential to understand its immediate impact on ecosystems and human health accurately.
  - A) cope with
  - B) get along
  - C) carry on
  - D) make out
  - E) cut back

7-16: For these questions, choose the best word(s) or expression(s) to fill the space(s).

7. When the ecosystem is in balance, crown-of-thorn sea stars ---- significant harm, but once this balance is lost, catastrophic outbreaks ---- devastation to reefs.
  - A) aren't causing / would result in
  - B) haven't caused / are supposed to occur
  - C) don't cause / can result in
  - D) won't cause / have to result in
  - E) wouldn't cause / had to result in
8. Astronomers have discovered a new type of "aurora" created by falling SpaceX rocket boosters that punch temporary holes in the ionosphere, and experts ---- that these blood-red light shows ---- unknown problems for astronomy and communication.
  - A) were concerned / must be causing
  - B) will be concerned / should be causing
  - C) have been concerned / had to be causing
  - D) had been concerned / might be causing
  - E) are concerned / could be causing

9. In the U.S., coal is being displaced by natural gas and renewable energy for mainly---- electricity; globally, however, coal use is projected ---- to a great extent in coming years.
- A) to generate / to be increased  
B) generating / to increase  
C) having generated / increasing  
D) generated / increased  
E) to have been generated / having increased
10. Anti-natalism is the philosophical view that it is ethically wrong to bring anyone else ---- being, and its justifications draw ---- worries about suffering and choice.
- A) about / from                      B) into / upon  
C) for / back                          D) on / over  
E) towards / onto
11. At a time when French criminals usually ended up ---- the gallows, or the guillotine, French King Louis XIV ordered one man to be put ---- bars for the rest of his life.
- A) on / behind                      B) in / around  
C) at / for                              D) with / off  
E) within / away
12. ---- you delve into the achievements and contributions of the ancient Greeks, it is challenging to grasp the profound impact they had on philosophy, art, and the foundations of Western civilization.
- A) Once                                  B) Because  
C) As if                                  D) Unless  
E) While
13. ---- most asteroids circle the Sun in the belt between Mars and Jupiter, there is another group of the space rocks within the orbits of Earth and Venus.
- A) If                                      B) As soon as  
C) When                                D) Now that  
E) Although
14. ---- people who are overweight, or with a physical or developmental disability are more likely to be bullied, they are more likely than not to develop mental health problems, including depression, anxiety and self-harming behavior.
- A) Whereas                          B) Unless  
C) As soon as                        D) Even if  
E) Given that
15. Higher temperatures, ---- resulting from the weather conditions ---- induced by the excess heat radiated from machinery, can cause vital materials in machinery to deform.
- A) so / that                          B) such / that  
C) as / as                              D) whether / or  
E) neither / nor
16. ---- all members of the *Sphyrnidae* family, the great hammerhead shark has a head that looks less like something a living creature would have and more like a spare part from a racing car prototype.
- A) Despite                              B) With respect to  
C) Because of                        D) On behalf of  
E) As with

**Bonus 1**

**Elevated temperatures, stemming from ---- atmospheric conditions ---- the surplus heat emitted by machinery, have the potential to induce deformation in the materials of machinery.**

- A) so / that                      B) such / that  
C) so / as                         D) not only / but also  
E) neither / nor

**Bonus 2**

**Keep in mind that perceptions of middle age can vary, and the boundaries may be somewhat ---- depending on cultural, societal, and individual perspectives.**

- A) assertive                      B) fluid  
C) straight                        D) weird  
E) brief

**Bonus 3**

**Engineers are still trying to solve the puzzle of Leonardo da Vinci's pioneering sketches of tanks and helicopters, ---- others continue to search for enlightenment in his 6,000-plus pages of notes – all of which were penned in mirrored writing.**

- A) once                              B) because  
C) as if                              D) while  
E) unless

**Bonus 4**

**Engineers are currently grappling ---- deciphering Leonardo da Vinci's groundbreaking sketches of tanks and helicopters, while others persist in seeking insight ---- his extensive collection of over 6,000 pages of notes – all written in mirrored script**

- A) with / from                      B) up / into  
C) at / for                         D) with / off  
E) within / of

**Bonus 5**

**"Seeking insights "---- this context means attempting to gain understanding or valuable information by examining Leonardo da Vinci's extensive collection of notes. People are trying to find valuable and enlightening information ---- the content of the notes.**

- A) by / on                         B) up / about  
C) at / from                        D) with / by  
E) in / within

**Bonus 6**

**Türkiye and Egypt, both situated in the Eastern Mediterranean and with ties to ancient civilizations, showcase unique differences ---- culture, history, and geography.**

- A) as well as                      B) such as  
C) due to                         D) in terms of  
E) apart from

**Bonus 7**

**In geographical terms, Türkiye spans two continents, Europe and Asia, ---- a diverse landscape of mountains, coastlines, and fertile plains, while Egypt, predominantly located in North Africa, is defined by the Nile River and extensive desert terrain.**

- A) harnessing                      B) boosting  
C) separating                      D) spreading  
E) featuring

**Bonus 8**

**Culturally, Türkiye's identity reflects a synthesis of Eastern and Western influences, stemming from its historical position ---- the crossroads of civilizations. Egypt, with a rich ancient history dating back to the Pharaohs, holds a cultural identity deeply rooted ---- the Nile Valley and the Arab world.**

- A) on / out                         B) up / among  
C) at / in                         D) by / between  
E) in / along

**Bonus 9**

**----, both Türkiye and Egypt have played pivotal roles in shaping human civilization, representing two of the earliest and most advanced civilizations in the world.**

- A) Surprisingly                      B) Coincidentally  
C) Consequently                      D) Regrettably  
E) Historically

**Bonus 10**

**Whereas Egypt is renowned for ancient wonders like the Pyramids and the Sphinx, Türkiye, ---- the successor state ---- the Ottoman Empire, has a history marked by imperial rule and a unique amalgamation of cultural elements.**

- A) by / of                         B) after / from  
C) in / from                        D) before / by  
E) as / to

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**Bonus 11**

**Despite certain distinctions, both Türkiye and Egypt ---- vibrant cultures, warm hospitality, and UNESCO World Heritage Sites, making them appealing destinations for global visitors.**

- A) exploit                      B) adopt  
C) expose                      D) boast  
E) betray

**Bonus 12**

**The exchange of traditions and customs between diverse societies contributes to a rich tapestry of global heritage, fostering ---- understanding and appreciation.**

- A) malign                      B) previous  
C) prior                      D) mutual  
E) moderate

**Cloze test 1**

Conventional paper calendars, a time-tested organizational tool, have long served as a **(1)** ---- and accessible means for scheduling events and managing time. Their benefits include simplicity, portability, and the ease of jotting down notes and reminders directly **(2)** ---- the page. **(3)** ----, paper calendars often provide a visual overview of the month or year, aiding in long-term planning. **(4)** ----, drawbacks include the risk of loss or damage, limited space for detailed information, and the inability to set digital reminders. On the other hand, digital calendars offer unparalleled **(5)** ----, synchronization across devices, and the ability to set alarms for important events. They also allow users to share schedules effortlessly. Yet, digital calendars may be **(6)** ---- to technical issues, require regular device charging, and lack the concrete satisfaction of physically crossing off completed tasks. The choice between conventional and digital calendars ultimately **(7)** ---- individual preferences and the need for a balance between the tangible and the technologically advanced in organizing daily life.

1.

- |                |                 |
|----------------|-----------------|
| A) predisposed | B) enthusiastic |
| C) successive  | D) tangible     |
| E) relentless  |                 |

2.

- |          |           |
|----------|-----------|
| A) for   | B) in     |
| C) on    | D) across |
| E) under |           |

3.

- |                 |                 |
|-----------------|-----------------|
| A) Conversely   | B) Additionally |
| C) Consequently | D) Similarly    |
| E) Ultimately   |                 |

4.

- |            |             |
|------------|-------------|
| A) Besides | B) Hence    |
| C) Then    | D) In short |
| E) However |             |

5.

- |                |                |
|----------------|----------------|
| A) drawback    | B) deterrent   |
| C) enactment   | D) convenience |
| E) elucidation |                |

6.

- |                |               |
|----------------|---------------|
| A) inclination | B) allocation |
| C) devotion    | D) subject    |
| E) attribute   |               |

7.

- |               |                  |
|---------------|------------------|
| A) results in | B) deviates from |
| C) wards off  | D) hinges on     |
| E) calls for  |                  |

**Cloze test 2**

Polaroid cameras emerged as a groundbreaking innovation in the realm of photography, **(1)**---- the inventive mind of Edwin Land. Land founded the Polaroid Corporation and introduced the first commercially successful instant camera, the Polaroid Land Camera, in 1948. The camera utilized instant film that could develop a photograph **(2)**---- minutes, indeed even 60 seconds, eliminating the need for external processing; **(3)**----, it revolutionized the way people took photos. Land's **(4)**---- to merging science and art resulted in the granting of a patent for the instant camera system in 1947, showcasing the unique technology behind Polaroid's instant photography. The patent reflected Land's vision of democratizing photography by making it **(5)**---- to the masses. This transformative invention not only shaped the future of photography but also created a cultural phenomenon, solidifying Polaroid cameras **(6)**---- iconic devices that bridged the gap between technology and the joy of memories instantly.

1.

- |                |                    |
|----------------|--------------------|
| A) besides     | B) with respect to |
| C) in spite of | D) on behalf of    |
| E) thanks to   |                    |

2.

- |           |           |
|-----------|-----------|
| A) for    | B) at     |
| C) within | D) across |
| E) under  |           |

3.

- |                      |                      |
|----------------------|----------------------|
| A) on the other hand | B) in so doing       |
| C) in contrast       | D) by the same token |
| E) to this end       |                      |

4.

- |                  |                  |
|------------------|------------------|
| A) resentment    | B) pronouncement |
| C) contradiction | D) commitment    |
| E) illumination  |                  |

5.

- |               |               |
|---------------|---------------|
| A) vulnerable | B) dedicated  |
| C) subsequent | D) accessible |
| E) superior   |               |

6.

- |            |          |
|------------|----------|
| A) because | B) since |
| C) while   | D) as    |
| E) when    |          |

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**17-21: For these questions, choose the best word or expression to fill the spaces in the passage.**

From the start, Alexandria was a special city. It was founded in April 331 BC by the legendary king and commander, Alexander the Great. The Macedonian had just added Egypt to his extensive list of conquests and ordered that a port city **(17)** ---- west of the Nile delta. The city was just one of many that bore the name of the commander, but the Macedonian king had big plans for this town. Alexander imagined that one day it would become a link between his Greek homeland and all the land he intended to conquer in the Middle East. The ruler carefully selected the site in **(18)** ---- with the numerous advisors he took with him on his campaigns. The location was perfect: on a narrow shore, 32 km west of the mouth of the Nile. At such a distance from the Nile, silt from the river wouldn't settle **(19)** ---- the seabed and block the entrance to the harbour. **(20)** ----, the city would be well protected from attack. Armies from the west would have to cross the burning Libyan desert, **(21)** ---- enemies from the east would have to navigate the swampy Nile delta to besiege the city. Bountiful Egyptian cornfields near Alexandria ensured that the city would never lack food, and transport links were good.

17.

- |                       |                |
|-----------------------|----------------|
| A) be built           | B) to be built |
| C) to have been built | D) being built |
| E) having been built  |                |

18.

- |                  |                 |
|------------------|-----------------|
| A) measurement   | B) declaration  |
| C) contradiction | D) consultation |
| E) enlightenment |                 |

19.

- |          |           |
|----------|-----------|
| A) above | B) amid   |
| C) on    | D) across |
| E) under |           |

20.

- |                |              |
|----------------|--------------|
| A) Similarly   | B) Moreover  |
| C) In contrast | D) Therefore |
| E) Meanwhile   |              |

21.

- |            |          |
|------------|----------|
| A) because | B) since |
| C) once    | D) while |
| E) when    |          |

**22-26: For these questions, choose the best word or expression to fill the spaces in the passage.**

The Moon, as we now know, is a dead place. But **(22)** ---- the Apollo 11 astronauts landed there, we couldn't be 100% sure. **(23)** ----, there was the serious possibility that the three men on the mission could have brought space bugs back with them. When the Apollo capsule landed on the sea after its lunar journey, there were strict anti-contamination procedures **(24)** ---- place to prevent alien life spreading on to Earth. The astronauts were supposed to stay inside, with the door locked, until they entered quarantine. But it was hot and uncomfortable, bobbing around on the waves, so they were allowed to open the door. If lunar bugs had hitched a ride, they could have **(25)** ---- this opportunity to enter the Pacific Ocean. It could, in principle, have proved catastrophic for life on Earth. Luckily for us, that **(26)** ----.

**22.**

- |            |               |
|------------|---------------|
| A) after   | B) as soon as |
| C) before  | D) since      |
| E) whereas |               |

**23.**

- |                      |            |
|----------------------|------------|
| A) Thus              | B) In fact |
| C) However           | D) Even so |
| E) By the same token |            |

**24.**

- |        |         |
|--------|---------|
| A) in  | B) at   |
| C) for | D) over |
| E) on  |         |

**25.**

- |                |               |
|----------------|---------------|
| A) entertained | B) cultivated |
| C) stigmatized | D) defied     |
| E) seized      |               |

**6.**

- |                    |                     |
|--------------------|---------------------|
| A) wouldn't happen | B) wasn't happening |
| C) hasn't happened | D) won't happen     |
| E) didn't happen   |                     |



**27-36: For these questions, choose the best option to complete the given sentence.**

**27. ----, the Arctic Ocean consists of two principal deep basins that are subdivided into four smaller basins by three transoceanic submarine ridges.**

- A) From the late 19th century, when the Norwegian explorer Fridtjof Nansen first discovered an ocean
- B) Since explorations after 1950 revealed the true complex nature of the ocean floor
- C) Rather than being a single basin, as was initially thought by the first explorers
- D) Because the Eurasia Basin is divided into two smaller basins by a trans-Arctic Ocean extension of the Mid-Atlantic Ridge
- E) Whereas the continental shelf on the North American side of the Arctic Ocean is of a normal width

**28. Whereas iguana has a well-developed digestive system housing bacteria that ferment plant material, ----.**

- A) males become territorial, and mating pairs are established during the rainy season
- B) it also eats invertebrates when young and has been known to eat small birds and mammals
- C) food of the common iguana consists largely of leaves, buds, flowers, and fruits of fig trees
- D) it is often seen basking in the sun on the branches of trees overhanging water
- E) the best-known species is the common, or green, iguana (Iguana iguana)

**29. As noncommunicable diseases are generally long-lasting and progress slowly, ----.**

- A) they are sometimes also referred to as chronic diseases by medical experts
- B) they can hardly arise from environmental exposures or from genetically determined abnormalities
- C) four major types of noncommunicable disease are cancer, cardiovascular disease, chronic respiratory disease, and diabetes mellitus
- C) they account for 82 percent of all deaths from diseases in the world
- E) they definitely leave an individual ill-equipped to survive without some form of treatment

**30. Whereas World War I exacerbated nationalism and ideological extremism in Europe, ----.**

- A) World War II accounted for more than 18 million in battle, bombing, and systematic Nazi genocide
- B) the few survivors of World War II were known for their resilience and composure
- C) the wars left lasting wounds, psychological and physical alike, as well as the countless dead
- D) Europe came close to destroying itself during the two big wars in the 20th century
- E) World War II had almost the opposite effect, eventually evolving into a united Europe

**31. Although the art of bonsai, training and growing trees in small containers, originated in China, ----.**

- A) bonsai may live for a century or more and may be handed down from one generation to another
- B) it has been pursued and developed primarily by the Japanese today
- C) bonsai specimens are ordinary trees and shrubs that are dwarfed by pruning roots and branches
- D) good bonsai specimens are usually hardy species that can be kept outdoors the year round
- E) the selection of the appropriate container in which to cultivate a bonsai is an essential element of the art

32. As it becomes clear that the ability to walk at an old age is crucial for longevity, ----.

- A) it may lead to an increased risk of dying from chronic illnesses prematurely
- B) walking is often considered an environmental exposure that affects health
- C) the importance of walking diminishes in comparison to genetic factors
- D) it is gradually becoming a key determinant of overall health and well-being for people over 65
- E) chronic respiratory diseases become more prevalent in individuals who walk regularly

33. Although some may underestimate the significance of particle physics, ----.

- A) it plays a crucial role in unravelling the intricate connections between matter and energy
- B) it is claimed to have minimal relevance to our understanding of the natural world
- C) it mainly focuses on environmental exposures and genetic determinants
- D) the significance of particle physics reduces in the face of chronic diseases
- E) it is unrelated to advancements in technology and scientific knowledge

34. While many workers may have believed that burger-flipping robots in fast food restaurants would represent the first wave of AI-related job losses, ----.

- A) generative AI tools and technologies can barely do many things that have, in years past, been left to highly skilled humans
- B) the rise of AI is limited to physical jobs, sparing the realm of knowledge work from any potential threat of job losses
- C) the slow pace of AI development ensures that knowledge-work jobs remain secure for an extended period
- D) the advent of AI is expected to create more job opportunities in the knowledge-work sector rather than causing losses
- E) the fast evolution of generative AI tools may now mean knowledge-work jobs long considered "safe" could be threatened faster than workers anticipated

35. ----, flying is one of the most carbon-intensive forms of travel.

- A) Although emission from burning jet fuel while keeping the commercial aircraft airborne during long-haul flights is so high
- B) Since even people who gather in a remote location for a climate conference go there by using private jets
- C) Whereas private jet travel is the most polluting mode of all, consuming lots of fuel yet carrying few passengers
- D) Because vapour trails left by commercial aircraft help create high altitude clouds which trap more heat in the atmosphere
- E) As for a journey from London to Dubai, private jet travel is 11 times more polluting than a commercial aircraft and 35 times more than train

36. The point when a child with special educational needs (SEN) is diagnosed is an important moment in their lives ----.

- A) though researchers around the world have found a consistent gender gap in SEN identification
- B) since of the 1.5 million children in English schools identified for SEN services, only 0.5 million are girls
- C) as it allows schools to provide them with access to additional resources, such as assistive technology
- D) whereas biological factors may make boys more vulnerable to certain disabilities
- E) because boys are more disruptive and command more attention, while girls go under the radar

**37-42: For these questions, choose the most accurate Turkish translation of the sentences in English, and the most accurate English translation of the sentences in Turkish.**

**37. While artificial intelligence has taken the limelight over the past year, technology that can appear to operate like human brains has been top of mind for researchers, investors and tech executives in Silicon Valley and beyond for more than a decade.**

- A) Yapay zekâ, geçtiğimiz yıl ilgi odağı haline gelmiş olabilir ancak, insan beyni gibi çalışabilen teknoloji on yıldan uzun bir süredir Silikon Vadisi ve ötesindeki araştırmacılar, yatırımcılar ve teknoloji yöneticileri için en önemli konu olmuştur.
- B) Yapay zekâ, geçtiğimiz yıl ilgi odağı olsa da insan beyni gibi çalışabilen teknoloji on yıldan uzun bir süredir Silikon Vadisi ve ötesindeki araştırmacılar, yatırımcılar ve teknoloji yöneticileri için en önemli konu olmuştur.
- C) Yapay zekanın geçtiğimiz yıl ilgi odağı olması, insan beyni gibi çalışabilen teknolojinin on yıldan uzun bir süredir Silikon Vadisi ve ötesindeki araştırmacılar, yatırımcılar ve teknoloji yöneticileri için en önemli konu olduğunu değiştirmez.
- D) Geçtiğimiz yıl ilgi odağı olan yapay zekayla birlikte insan beyni gibi çalışabilen teknoloji, on yıldan uzun bir süredir Silikon Vadisi ve ötesindeki araştırmacılar, yatırımcılar ve teknoloji yöneticileri için en önemli konu olmuştur.
- E) İnsan beyni gibi çalışabilen teknoloji, on yıldan uzun bir süredir Silikon Vadisi ve ötesindeki araştırmacılar, yatırımcılar ve teknoloji yöneticileri için en önemli konu olsa da yapay zekâ geçtiğimiz yılda ön plana çıkmıştır.

**38. The vast majority of Americans want to remain in their own homes, living independently, for as long as possible, so they want to avoid nursing homes, which they see as providing poor care when they are old.**

- A) Amerikalıların büyük çoğunluğu, mümkün olduğunca uzun süre kendi evlerinde kalmak ve bağımsız yaşamak istemekte bu nedenle de yaşlandıklarında yetersiz bakım sağladığını düşündükleri huzurevlerinden kaçınmak istemektedirler.
- B) Mümkün olduğunca uzun süre kendi evlerinde kalmak ve bağımsız yaşamak isteyen Amerikalıların büyük çoğunluğu, beklendiği üzere, yaşlandıklarında yetersiz bakım sağladığını düşündükleri huzurevlerinden kaçınmak istemektedirler.
- C) Amerikalıların büyük çoğunluğu, mümkün olduğunca uzun süre kendi evlerinde kalmak ve bağımsız yaşamak istedikleri için yaşlandıklarında yetersiz bakım sağladığını düşündükleri huzurevlerinden kaçınmak istemektedirler.
- D) Amerikalıların büyük çoğunluğu, mümkün olduğunca uzun süre kendi evlerinde kalmak ve bağımsız yaşamak istese de yaşlandıklarında yetersiz bakım sağladığını düşündükleri huzurevlerini yine de bir seçenek olarak görmektedir.
- E) Amerikalıların büyük çoğunluğunun yaşlandıklarında yetersiz bakım sağladığını düşündükleri huzurevlerinden kaçınmak istemelerinin sebebi, mümkün olduğunca uzun süre kendi evlerinde kalmak ve bağımsız yaşamak istemeleridir.

**39. When it comes to screen time and video game time for children, most of us are a bit cautious, but research shows that there are long term mental benefits to playing video games for boys.**

- A) Çocuklar için ekran süresi ve video oyunu süresi söz konusu olduğunda çoğumuz biraz temkinli olsak da araştırmalar, erkek çocuklar için video oyunu oynamanın uzun vadeli zihinsel faydaları olduğunu gösteriyor.
- B) Çocuklar için ekran süresi ve video oyunu süresi söz konusu olduğunda çoğumuz biraz temkinli olmamız, araştırmaların erkek çocuklar için video oyunu oynamanın uzun vadeli zihinsel faydaları olduğunu gösterdiği gerçeğini değiştirmez.
- C) Çocuklar için ekran süresi ve video oyunu süresi söz konusu olduğunda çoğumuzun ilk tepkisi biraz panikleme oluyor ancak araştırmalar, erkek çocuklar için video oyunu oynamanın uzun vadeli zihinsel faydaları olduğunu gösteriyor.
- D) Çocuklar için ekran süresi ve video oyunu süresi söz konusu olduğunda çoğumuz biraz temkinliyiz ancak araştırmalar, erkek çocuklar için video oyunu oynamanın uzun vadeli zihinsel faydaları olduğunu gösteriyor.
- E) Çocuklar için ekran süresi ve video oyunu süresi söz konusuysa çoğumuz aşırı tepki verebiliriz ancak araştırmalara göre, erkek çocuklar için video oyunu oynamanın uzun vadeli zihinsel faydaları bulunmaktadır.

**40. Gezegenlerin ve yıldızların yaşlarını ölçmek, bilim insanlarının onların ne zaman oluştuğunu ve nasıl değiştiklerini- ve gezegenler söz konusu olduğunda, üzerlerinde yaşamın evrimleşmesi için zaman olup olmadığını anlamalarına yardımcı olur.**

- A) By determining the ages of planets and stars, scientists gain insights into their formation, evolution – and, in the case of planets, whether sufficient time has elapsed for the potential evolution of life.
- B) The assessment of the ages of planets and stars aids scientists in comprehending their formation, transformations over time, and, in the context of planets, assessing the likelihood of the evolution of life.
- C) Measuring the ages of planets and stars helps scientists understand when they formed and how they change – and, in the case of planets, if life has had time to have evolved on them.
- D) Scientists enhance their understanding of planetary and stellar formation, evolution, and the potential for life's evolution by measuring the ages of planets and stars.
- E) Evaluating the ages of planets and stars is pivotal for scientists to work out their formation, evolutionary processes – and, especially in the case of planets, to determine the likelihood of life having evolved on them.

**41. Güçlü ilaçlar sayesinde HIV teşhisi yıllardır ölüm fermanı olmaktan çıktı, ancak inanılmaz ilerlemelere rağmen HIV, sadece 2022 yılında 1,3 milyon yeni enfeksiyon ve bunun yaklaşık yarısı kadar ölümlerle küresel bir halk sağlığı tehdidi olmaya devam ediyor.**

- A) An HIV diagnosis hasn't been a death sentence for years, thanks to powerful medications, but despite incredible progress, HIV remains a global public health threat, with 1.3 million new infections and around half that many deaths in 2022 alone.
- B) While powerful medications have transformed an HIV diagnosis from a death sentence into a manageable condition, the global public health threat persists, with 1.3 million new infections and approximately half as many deaths in 2022.
- C) Despite the fact that powerful medications have turned an HIV diagnosis into a manageable condition, it is still a global public health threat, with 1.3 million new infections and roughly half as many deaths in 2022 alone.
- D) Though powerful medications have converted an HIV diagnosis into a manageable condition, the global public health threat endures, with 1.3 million new infections and approximately half as many deaths recorded in 2022.
- E) Even if an HIV diagnosis is no longer a death sentence thanks to powerful medications, the condition is still a global public health threat as, in 2022 alone, there were 1.3 million new infections and approximately half as many deaths.

**42. Sosyal medya fenomenleri Hint yağının bulanık görmeyi iyileştirdiğine, göbük yağlarını erittiğine ve hatta tümörleri öldürdüğüne yemin ediyor, ancak iddia edilen faydaların çok azı bilimsel kanıtlarla destekleniyor.**

- A) While social media influencers endorse castor oil for treating blurry vision, reducing belly fat, and even combating tumours, scientific evidence substantiating most of these claimed benefits is limited.
- B) Although social media influencers seem pretty sure that castor oil cures blurry vision, burns belly fat, and even kills tumours, there is almost no scientific evidence for these so-called benefits.
- C) Social media influencers advocate for castor oil as a remedy for blurry vision, weight loss, and even tumour reduction, yet scientific backing for many of these purported benefits is scarce.
- D) Despite social media influencers touting castor oil as a solution for blurry vision, belly fat reduction, and tumour treatment, scientific evidence supporting most of these claims is lacking.
- E) Social media influencers swear by castor oil for curing blurry vision, busting belly fat, and even killing tumours, but few of the purported benefits are backed by scientific evidence.

**43-46: Answer these questions according to the passage below.**

During the first week of September 1958, keen observers spotted hundreds of rare birds in the British Isles. According to a report at the time, they saw melodious warblers, tree pipits and, most surprisingly, a "remarkable influx" of red-breasted flycatchers. Very few of these flycatchers typically visit the United Kingdom annually as they make their way from central Europe to their wintering grounds in South Asia. Those who do wind up in the U.K. are termed "vagrants," since they are well outside their expected range. The appearance of red-breasted flycatchers, let alone at least 30 of them, so far off their migratory course that autumn **baffled** birdwatchers and ornithologists at the time. Analysing weather maps for recent storms did little to explain the phenomenon. Kenneth Williamson, a migration research officer for the British Trust for Ornithology, wrote that the phenomenon was extremely difficult to understand, considering that the weather was "almost perfect for orientation." Now, 65 years later, new research into avian navigation gives scientists another hunch about what might have happened. They have found that Earth's weather isn't the only thing that can cause birds to veer off course – space weather seems to impact birds' internal GPS. Bursts of energy from the sun in the form of sunspots, solar flares and coronal mass ejections are becoming more frequent and may affect how birds navigate.

**43. It is clear from the passage that what birdwatchers observed in the British Isles in 1958 was unusual because ----.**

- A) the birds they observed were not supposed to be there in great numbers
- B) the birds were migrating from South Asia to central Europe
- C) the weather conditions were not ideal for bird migration at that time
- D) the phenomenon was already well-explained by weather maps
- E) the vast majority of the birds they observed were melodious warblers

**44. According to the passage, the appearance of red-breasted flycatchers was difficult to understand in 1958 as ----.**

- A) the birds were not properly oriented due to unfavorable weather
- B) the birds were considered vagrants outside their expected range
- C) the weather conditions were not conducive for bird migration
- D) the observers didn't have any scientific knowledge about bird migration
- E) the weather conditions were almost perfect for the birds to find their way

**45. The underlined word 'baffled' in the passage is closest in meaning to ----.**

- A) thwarted
- B) extracted
- C) disturbed
- D) practiced
- E) puzzled

**46. What does the new research into avian navigation suggest as a potential cause for birds veering off course during migration?**

- A) Changes in Earth's climate patterns
- B) Sunspots, solar flares, and coronal mass ejections
- C) Unpredictable storms and weather patterns
- D) Lack of food sources along the migratory route
- E) Increased human activity disrupting bird migration routes

**47-50: Answer these questions according to the passage below.**

To heat your home without damaging the climate, you will need to replace your gas boiler. UK government advisers recommend switching to appliances that run on electricity. However, if a root-and-branch conversion to electric heating is too expensive, even a partial shift to "hybrid heating" can cut your energy bills and household emissions relatively quickly – although phasing out gas and oil is still essential in the long run for averting climate breakdown. A hybrid heating system combines two or more technologies to heat a building. Typically, this involves pairing a conventional gas boiler with a renewable alternative like an electric heat pump. But there are other possibilities. For instance, roof-mounted solar panels can generate electricity to help run an immersion heater, or solar-thermal panels can complement your heat pump or boiler by making hot water. Gas boilers supplied 92% of home heating across the UK in 2017. Emissions from the average boiler are equivalent to 2.2 tonnes of CO<sub>2</sub> a year, making residential heating one of the country's biggest contributors to climate change. The UK government will stop the sale of new gas boilers from 2035. Meanwhile, heat pumps are slowly gaining popularity through the government boiler upgrade scheme, which offers grants of up to £7,500 (US\$9,400). Electric heat pumps convert electricity to heat very efficiently by extracting heat from the air or ground outside and transferring it to water that is pumped through radiators. The International Energy Agency says that installing a heat pump can significantly lower household emissions, especially when the electricity powering it is from a renewable source like wind or solar.

**47. What is the recommended approach for heating homes without causing harm to the climate according to the passage?**

- A) Increasing the use of gas boilers
- B) Maintaining the current heating systems
- C) Switching to appliances that run on electricity
- D) Utilizing renewable alternatives like solar panels
- E) Phasing out heating systems altogether

**48. It can be concluded from the passage that full conversion to electricity to heat homes in the UK ----.**

- A) will not be possible unless people start using hybrid systems first
- B) will be completed by 2035, when the sale of gas boilers will stop
- C) will be done to replace roof-mounted solar panels that are used to create clean energy
- D) might not have a significant impact on the energy bills
- E) will not take place anytime soon as the procedure is rather expensive

**49. According to the passage, among the alternatives mentioned, the one that the government endorses is ----.**

- A) gas boilers
- B) roof-mounted solar panels
- C) hybrid systems combining gas and solar
- D) heat pumps
- E) immersion heaters

**50. Which could be the best title for this passage?**

- A) Gas Boilers and Climate Change: A UK Perspective
- B) Hybrid Heating Systems: A Sustainable Solution
- C) The Transition to Electric Heating in the UK
- D) Government Initiatives for Green Home Heating
- E) Reducing Emissions: The Role of Immersion Heaters in UK Homes



**51-54: Answer these questions according to the passage below.**

Persistent depressive disorder (P.D.D.) is chronic depression that lasts for at least two years in adults. As with many types of mental illness, there are different levels of severity. Dysthymia is a milder form of P.D.D. Marnie Shanbhag, from the American Psychological Association, said that this less severe P.D.D. is often diagnosed when people come to therapy for another issue, like marital problems or job stress, and reveal that they feel an ongoing, low-level sadness, flatness or emotional numbness. There may not appear to be a reason behind it. "You're just sort of 'meh,'" Dr. Shanbhag said. "And you get used to being that way." For a typical patient, clinical depression means they can't get out of bed, shower, eat or walk their dog. With dysthymia, however, they can still function. They may not want to do the dishes, for example, but they won't feel obliterated by the task. Those who have the more severe form of P.D.D., referred to in the past as chronic major depressive disorder, might be unable to get out of bed after a night of insomnia, lose their appetite, have such difficulty concentrating that they cannot get their work done, or feel too exhausted to clean the house or prepare dinner, said Dr. Paul S. Appelbaum, a professor of psychiatry at Columbia University. It is estimated that about 2 percent of adults in the United States have had some form of P.D.D. in the past year, and it is thought to be more common among women than men. It is difficult to know its full scope, however, because experts say the disorder tends to be underdiagnosed.

**51. According to the passage, P.D.D. ----.**

- A) is a condition that is not directly diagnosed by professionals
- B) affects approximately 2% of adult women in the United States
- C) causes people to have extreme difficulty in performing simple daily chores
- D) accounts for at least half of depression diagnoses in the US
- E) results from issues like marital problems or job stress

**52. What distinguishes dysthymia from clinical depression, as mentioned in the passage?**

- A) Dysthymia is more common in men, while clinical depression is more common in women.
- B) Clinical depression is characterized by emotional numbness, while dysthymia is marked by severe concentration difficulties.
- C) Dysthymia involves ongoing, low-level sadness, but individuals can still function, unlike the incapacitating effects of clinical depression.
- D) Clinical depression is often triggered by specific events, while dysthymia has no apparent cause.
- E) Dysthymia is a short-term condition, while clinical depression lasts for at least two years in adults.

**53. It is clear from the passage that the discerning symptom of dysthymia is ----.**

- A) its incapacitating effect
- B) an ongoing, low-level sadness
- C) the inability to get out of bed
- D) a loss in appetite
- E) extreme exhaustion

**54. What is the purpose of the writer?**

- A) To compare and contrast chronic major depressive disorder and persistent depressive disorder by focusing on their symptoms
- B) To criticize health professionals for not paying enough attention to persistent depressive disorder, which affects many Americans
- C) To help reader distinguish between persistent depressive disorder and major depressive disorder
- D) To inform the reader about persistent depressive disorder, with a focus on its types and underdiagnosis
- E) To describe in detail how major depressive disorder affects a lot of people in the United States – two percent of adults to be precise

**55-58: Answer these questions according to the passage below.**

When streaming services initially hit the market, part of their allure was eliminating the advert experience. Many consumers abandoned linear television so they could watch programmes uninterrupted, subscribing to services including Netflix. It revolutionised the media business landscape – and gave consumers a totally new, on-demand experience. Now, however, eager to boost revenue, streaming companies are pumping adverts into their products. In late September, for example, a major provider announced it would be integrating ads into service in at least 10 global markets come 2024, joining many other streamers who have already made the move. Streaming consumers will be back to square one – stuck with the commercial breaks they were eager to discard, and likely subscribed to multiple streaming outlets at collective prices that rival cable TV packages. This shift comes as many streaming services are facing massive amounts of debt, says Anthony Palomba, a professor at University of Virginia Darden School of Business, US. This is due to the cost of content investments, licensing fees and other expenditures these companies have made to expand their libraries and compete with other services on the market. Now, they are looking for a return on those investments – and subscribers will foot the bill.

**55. It is clear from the passage that the main motivation of those who subscribed to streaming services ----.**

- A) turned out to be just leaving linear TV watching experience behind
- B) has been on the agenda of streaming services for a long time now
- C) was to have an incessant watching experience without the intervening adverts
- D) is to attract more like-minded people so as to avoid having to watch commercials
- E) was to establish an on-demand service to cater for the needs of people with similar visions

**56. What is true about the current service provided by streaming companies according to passage?**

- A) They all provide continuous streaming without any ads.
- B) Most of them introduced adverts into their services to get revenues.
- C) They adamantly reject to include adverts in order not to let their customers down.
- D) They will all introduce ads into their service in 10 global markets.
- E) The way they market their products went through a major change long ago.

**57. According to the passage, the main reason why streaming services have been changing their policy is ----.**

- A) to boost revenue and recover from debt
- B) to enhance the on-demand experience
- C) to attract even more subscribers
- D) to compete with cable TV packages
- E) to reduce content investments

**58. The passage is mainly about ----.**

- A) the advantages streaming services provide to their customers
- B) the comparison of the services of streaming companies and cable TV
- C) a change in policy by streaming service companies to be able to continue their business
- D) the way streaming service companies conduct on-demand watching experience
- E) how streaming service providers deceived their customers about cable TV



**59-62: Answer these questions according to the passage below.**

Planetary scientists have discovered salty glaciers near the north pole of Mercury, raising the possibility that the closest planet to the sun may be capable of hosting life. The new findings were made using past observations from NASA's retired MESSENGER probe. These glaciers, found in Mercury's *Raditladi* and *Eminescu* craters, aren't quite like the typical icebergs we think of on Earth. Instead, they are flows of salt that trapped volatile compounds deep below Mercury's surface. In geology terms, volatiles are chemicals that readily evaporate on a planet – like water, carbon dioxide and nitrogen. Mercury's strange salt-bergs were revealed by asteroid impacts, which exposed this material trapped below the surface; that's why scientists discovered them in craters. Glaciers are surprising to find on Mercury because of its proximity to the sun; the planet is 2.5 times closer to our star than Earth is. At that small distance, things are a lot hotter. Yet, these salt flows could have preserved their volatiles for over one billion years. Although Mercury's salty deposits aren't analogous to typical icebergs or Arctic glaciers, similarly salty environments do exist on Earth, so geologists have a good idea of what these environments are like – and whether life can emerge there. Specific salt compounds on Earth create habitable niches even in some of the harshest environments where they occur, such as the arid Atacama Desert in Chile. This line of thinking leads scientists to ponder the possibility of subsurface areas on Mercury that might be more hospitable than its harsh surface.

**59. What makes the glaciers on Mercury unique compared to typical icebergs on Earth?**

- A) They are made of water, carbon dioxide, and nitrogen.
- B) They are formed by asteroid impacts.
- C) They are found in the Raditladi and Eminescu craters.
- D) They trap volatile compounds like salt below the surface.
- E) They are closer to the sun than Earth's glaciers.

**60. According to the passage, the presence of glaciers on Mercury is astonishing because ----.**

- A) the glaciers on the planet are composed of salt rather than ice
- B) the glaciers were formed by volcanic activity a million years ago
- C) the salt flows have preserved volatiles for over one billion years
- D) similarly salty environments exist on Earth, providing insights into habitability
- E) the planet's surface is too hot for the existence of glaciers

**61. The passage makes it clear that the salty glaciers spotted on Mercury ----.**

- A) have been there since the formation of the planet
- B) are there because of the planet's proximity to sun
- C) are nothing like those found here in the Arctic
- D) would not be there if it weren't for asteroid impacts
- E) came into existence because of asteroid impacts

**62. The writer draws parallels between the salt compounds on Earth and those salt-bergs on Mercury to ----.**

- A) inform the readers about the nature of these salt formations
- B) suggest that there might be conditions for life under the ones on Mercury
- C) make a scientific statement about the possibility of intelligent life on Mercury
- D) enlighten the readers about the use of long-discarded data for current scientific purposes
- E) introduce a new theorem about extra-terrestrial life in our galaxy

63-67: For these questions, choose the best option to complete the dialogue.

63. Dave:

- It sounds unreal that The Great Wall of China is still standing, with no erosion or whatsoever.

Kane:

- It is because the original builders constructed the wall with rammed earth that was always constructed with clay, sand and other adhesives like lime to enhance the mechanical strength.

Dave:

- ----

Kane:

- Let me finish then. These ingredients provide fertile ground for the organisms that build "biocrusts," which account for the resilience of the wall.

Dave:

- Now it makes sense. Sorry for the interruption.

- A) You always have an answer for even the most random things, don't you?
- B) But these materials are quite prone to erosion: There must be some other element.
- C) Is it possible that the Great Wall is just a holographic projection, not a real structure?
- D) Oh, so the Great Wall is actually made of indestructible alien technology?
- E) I thought it was because of the wall's special force field protecting it from erosion.

64. Deidre:

- You are old enough to remember the last time Haley's Comet passed close to Earth. Did you have a clear sighting back then?

Gertrude:

- We did. It was amazing. It was such a great event that songs were composed bearing its name.

Deidre:

- ----

Gertrude:

- For real? I'd really like to see it once more.

Deidre:

- The thing is it will take the comet 38 years to come near Earth.

- A) Good news for you then: The comet has just begun its return journey to Earth.
- B) Please tell me more. Has the marshmallow biscuit got anything to do with the comet?
- C) As far as I know, it appears near our planet every 76 years, isn't it?
- D) Halley's Comet was the first comet predicted to return to Earth's skies.
- E) In a sense, this is the midway point of Halley's routine, 76-year orbit of the sun.

65. Rob:

- I wonder how ancient warriors dealt with trauma. We have the science of psychology to lean on, but they didn't have such luxury.

Thom:

- You are right. What remains from the past is sparse as records tend to be either heroic tales or factual accounts of events.

Rob:

- Then, we will never be able to know the way they dealt with combat trauma.

Thom:

- That is because the change is occurring much faster than species are changing, which means only the quick adapters will survive.

Rob:

- Now, that is good to know. We also have a hint about the purpose of those productions.

- A) To help veterans avoid trauma and give them tools to deal with it, medieval societies relied heavily on religion.
- B) Some records talk about the role of religion, while other records from the time even mention specific symptoms, such as fear, shame and betrayal.
- C) Battles in the Middle Ages mostly involved close combat, a butchering style of fighting that led to gruesome injuries and sometimes thousands of deaths in a single day.
- D) In fact, new research suggest that ancient Greeks used dramatic plays as a form of catharsis, which helped veterans to process these experiences.
- E) Our ancestors weren't immune to the psychological effects of all the deaths resulting from gruesome wars, just as they aren't today.

66. Jade:

- An interesting fact for you: It is not possible to know the exact number of islands on Earth.

Trudy:

- ---

Jade:

- It is not about our capabilities. Just last month a volcanic eruption in the ocean created an island off the coast of Japan.

Trudy:

- Wow. I didn't think about those new formations. Now, I remember, a similar thing happened near Hawaii.

Jade:

- Yes, I also remember that.

- A) I don't believe it. You must have cited an unreliable source here.
- B) It is not interesting, though. Everybody knows that volcanic eruptions bring about new islands.
- C) The same goes for the number of forests due to forest fires and reforestation efforts.
- D) Does it have anything to do with the unreachable parts of the ocean?
- E) I guess we have the technology and resources to count all the islands on Earth.

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67. TV Presenter:

- **Mr. Wilson, recently a video in which a kangaroo was trying to drown a dog went viral. It is said that this has happened before. Why do you think this happens?**

Professor:

- **It has something to do with their historical predators: dingoes.**

TV Presenter:

- **Can you please explain the correlation in a way that we can understand?**

Professor:

- ----

TV Presenter:

- **I understand the connection now. Thank you.**

- A) Dingoes are a native top predator they've coexisted with for many thousands of years.
- B) Modern dogs weren't introduced to Australia until 1788, when the first ships carrying British and Irish convicts arrived on the continent.
- C) Certainly. Kangaroos perceive dogs as a threat because dogs closely resemble dingoes.
- D) Dingoes hunt kangaroos in large packs, relaying each other to chase their prey until exhaustion.
- E) Kangaroos seek refuge from dingoes by hopping into the nearest body of water.

**68-71: For these questions, choose the best rephrased form of the given sentence**

**68. Before the beginning of the 19th Century, when Paris became the first city in Europe to use gas lighting to illuminate its streets, the sight of the Milky Way was as commonplace as the sight of the Moon.**

- A) Until the early 19th Century, before Paris pioneered gas lighting in Europe, the Milky Way was a familiar sight comparable to the Moon.
- B) Paris pioneered in introducing gas lighting to illuminate its streets in Europe at the beginning of the 19<sup>th</sup> century, and before that the Milky Way was a familiar sight akin to the Moon.
- C) If it hadn't been for Paris' introduction of gas lighting for street illumination at the beginning of the 19<sup>th</sup> century, we would be able to see the Milky Way as we do the Moon today.
- D) The introduction of gas-lit streets in Paris at the dawn of the 19<sup>th</sup> century ushered in a new era of night-time illumination. Yet, this progress came at a cost: the once-bright Milky Way was dimmed by the artificial light.
- E) As Paris became the first city to adopt gas-lit streets in the early 1800s, the Milky Way, once easily visible, was now overshadowed by artificial light, making it less accessible to the naked eye than the Moon.

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**69. While the range of electric vehicles has more than doubled since the first vehicles were introduced over a decade ago, most new cars have not hit the 500 kilometres benchmark.**

- A) Electric vehicles now offer twice the range they did a decade ago, when they were first introduced, but breaking the 500-kilometer barrier remains a hurdle for most new models.
- B) Though electric vehicles have come a long way, with their range soaring over the past decade, the 500-kilometer mark remains an elusive summit for most new models.
- C) The range of electric vehicles may have doubled in the 10 years since their introduction, yet this doesn't mean that all new electric cars can reach a range of 500 kilometres today.
- D) As the range of electric vehicles has more than doubled since the first vehicles were introduced over a decade ago, people expect the new ones to go over 500 kilometres, but it hasn't happened, yet.
- E) The surge in electric vehicle range over the past decade since their introduction has fuelled public hope for models exceeding 500 kilometres, a goal that remains elusive.

**70. In today's motivational literature, failure is often viewed as something to be celebrated because disappointments are seen not only as an essential stepping stone to success but also a turning point in our life story that will ultimately end in triumph.**

- A) Once considered a stumbling block, failure is now depicted in motivational literature as a crucial bridge, leading us across the treacherous waters of setbacks and ultimately arriving at the shores of success.
- B) Embracing failure is a key theme in contemporary motivational writing, with disappointments viewed not as failures but as indispensable stepping stones on the long and arduous journey towards achieving our goals.
- C) Contemporary motivational literature frequently celebrates failure, considering disappointments not only as a crucial stepping stone toward success but also as a pivotal moment in our life narrative that ultimately leads to triumph.
- D) In present-day motivational literature, there is a tendency to celebrate failure, as setbacks are regarded not just as a necessary path to success but also as a transformative juncture in our life journey that ultimately culminates in triumph.
- E) In the motivational literature of today, failure is often embraced and celebrated, but disappointments are not merely seen as obstacles but rather as indispensable milestones on the journey to success, marking significant turning points in our life stories that ultimately lead to triumph.

**71. Social inequalities in health and lifespan exist and are growing so it is vital that we continue to refine our understanding of the reasons why and what we should do about it.**

- A) Given the increasing and persistent inequalities in health and lifespan, it is imperative for us to enhance our understanding of the root causes and deliberate on measures to tackle these disparities.
- B) As disparities in health and lifespan persist and are increasing, continually enhancing our understanding of the underlying causes and determining appropriate actions to address them is of crucial importance.
- C) Since disparities in health and lifespan continue to persist, it becomes crucial for us to consistently refine our understanding of the reasons behind these inequalities and contemplate effective strategies to address and mitigate them.
- D) In the face of social disparities in health and lifespan, it is essential for us to deepen our understanding of the underlying reasons and contemplate effective measures to address these inequalities.
- E) Amidst the unfolding and intensifying social inequalities in health and lifespan, it is imperative that we continually reassess our understanding of the root causes and explore innovative strategies to not only confront but also transform these disparities.

**72-75: For these questions, choose the best option to complete the missing part of the passage.**

well as recorded impact times.

**72. Buried beneath the oceans surrounding continents is a naturally occurring frozen form of methane and water. Sometimes dubbed "fire-ice" as you can literally set light to it, marine methane hydrate can melt as the climate warms, uncontrollably releasing methane – a potent greenhouse gas – into the ocean and possibly the atmosphere. ---- This is a worry as that hydrate contains about as much carbon as all of the remaining oil and gas on Earth. Releasing it from the seabed could cause the oceans to become more acidic and the climate to warm further. This is a dangerous set of circumstances.**

- A) Around continents, where the oceans are shallow, hydrate is only just cold enough to remain frozen.
- B) New research shows more of this methane hydrate is vulnerable to warming than previously thought.
- C) Only 3.5% of the world's hydrate resides in the vulnerable zone, in this precarious state.
- D) Some layers of sediment fail to create a complex underground plumbing for the gas to move through.
- E) The seismic imaging provides the telltale signs of methane immediately below the craters.

**73. When NASA's Cassini spacecraft turned its instruments to Saturn's moon Enceladus, it observed plumes of ice shooting up from the moon's surface at speeds of about 900 miles per hour. These geysers seemed to be the tendrils of a vast subsurface ocean – and made scientists curious if their fluid might carry life signs, organic molecules. ---- There is now good news on that front: If one lab experiment is correct, then any possible amino acids in those geysers' fluid are expected to easily survive contact with a spacecraft.**

- A) But if scientists want to study those organic molecules, they will need to find a careful way of collecting them without destroying them.
- B) Thus, to determine if ice contains fingerprints of life, scientists want to get undamaged ice grains so they can get a clear read on compounds.
- C) In other words, possible amino acids spewing from Enceladus' subsurface ocean can survive impact with a spacecraft.
- D) Yet, this isn't the first time enthusiastic researchers are let down what they think they have discovered on Saturn's moon.
- E) Then, the researchers shot the hardened grains through a spectrometer and imaged each grain as

74. A wooden frame saddle with iron stirrups that was stunningly preserved in an ancient tomb in Mongolia may be the oldest of its kind. The innovative saddle could give archaeologists clues to the origins of medieval mounted warfare. ---- Radiocarbon dating of the human remains in the tomb and a sample of the horsehide saddle indicate it dates to around 420 A.D., making it the oldest known frame saddle in the world.

- A) The study raises the possibility that the Eastern Steppe played a key role in the early development and spread of the frame saddle and stirrup.
- B) Direct evidence for when rigid saddles complete with stirrups originated has eluded archaeologists for a long time.
- C) The horse found in the Urd Ulaan Uneet burial had bit-related damage to his teeth and changes to his nasal bones.
- D) In a recent study, an international team of archaeologists described the painted saddle, which was previously looted from a cave burial.
- E) Future work is needed to help clarify whether wooden frame saddles were invented in the Eastern Steppes.

75. If you don't have inflammation, then you will die. But if it transitions from a short-term response to one that lingers for months or years, chronic inflammation can fuel diseases such as cirrhosis, rheumatoid arthritis and heart disease. ---- But now, scientists are designing treatments that don't eliminate inflammation altogether but rather reprogram the cells that fuel it.

- A) Depending on the context, inflammation can be seen as helpful or harmful, but in either case, it can be brought back under control.
- B) Inflammation is the body's natural response to physical trauma, infection or toxins, and doctors have been describing it since antiquity.
- C) The whole point of inflammation is to control an infection, stop it spreading and then allow the healing process to start.
- D) In chronic inflammation, neutrophils, macrophages and other white blood cells linger at the site of inflammation.
- E) In the past, doctors tried to treat these diseases by shutting down all inflammation, which has nasty side effects and doesn't always work.

76-80: For these questions, choose the irrelevant sentence in the passage.

76. (I) Palaeontologists in Canada have uncovered a first-of-its-kind fossilized meal after finding dinosaur "drumsticks" in the belly of a "teenage tyrannosaur." (II) The unique fossils are the first direct evidence that these apex predators switched up their diets from early years to adulthood, a new study shows. (III) Scientists have previously found preserved prey remains within the stomachs of other meat-eating dinosaurs and the fossilized final meals of plant-based dinosaurs. (IV) Researchers discovered the partial remains of the tyrannosaur – a group of large theropod dinosaurs that includes Tyrannosaurus rex – in 2009 within Dinosaur Provincial Park in southern Alberta. (V) The exquisitely preserved fossils belong to Gorgosaurus libratus, which roamed what is now Alberta and Montana between 76.5 million to 75 million years ago.

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

77. (I) Over 200 viruses can cause respiratory infection, including RSV, adenoviruses, enteroviruses, rhinoviruses and coronaviruses. (II) This season, known respiratory germs, including respiratory syncytial virus (RSV) and Mycoplasma pneumoniae bacteria, have been recorded and are quite expected for this time of year. (III) Symptoms can be more serious in the young when similar infections have not been previously encountered. (IV) It takes about a week for specific immunity to develop its arsenal to a new pathogen. (V) After the infection is cleared, memory cells remain to protect against future infections.

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

78. (I) Despite a primary diet of gas and dust, black holes will consume anything that comes too close – meaning moons, planets and even stars are on the cosmic menu. (II) But does this mean black holes greedily suck in everything around them, like cosmic vacuum cleaners, as commonly imagined? (III) Black holes grow when rapidly spinning disk material gradually moves from the disk's outer edge to the inner edge closest to the black hole. (IV) The answer is no because black holes actually need a little luck, and a big, bright disk of matter around them in order to feed and grow. (V) This points to the fact that black holes can drift through galaxies, with a very lucky few eventually finding themselves in dense environments rich with gas and dust where they can start gathering mass.

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

79. (I) At the time of China's 2001 entry into the World Trade Organisation, the international automotive industry was dominated by European, US and Japanese brands. (II) The most recent data available shows that China in 2018 was still the second largest source of carbon dioxide (CO2) emissions in the global transport sector, responsible for 11%, and behind only the United States, which accounted for 21%. (III) However, in order to help reduce transport emissions around the world, the International Energy Agency has called for policies to encourage public transport and electric vehicles, so China rolled out e-buses – buses that run on pure electric –, which is helping achieve both. (IV) After around two decades of government support, China now boasts the world's largest market for e-buses, making up more than 95% of global stock. (V) At the end of 2022, China's Ministry of Transport announced that more than three-quarters (77% or 542,600) of all urban buses in the country were "new energy vehicles", a term used by the Chinese government to refer to e-buses.
- A) I      B) II      C) III      D) IV      E) V

80. (I) In 2017, Ellie Highwood, then professor of climate physics at the University of Reading, posted a photograph on Twitter of a "global warming blanket" she had crocheted, in which rows of colour represented average global temperature changes across time. (II) She had no idea that a graphic version later created by a colleague would become a global symbol of climate change. (III) The "climate stripes" image has been embraced by activists globally, and used as a cover image for Greta Thunberg's The Climate Book, as well as for print editions of The Economist and the Folha de S.Paulo, a Brazilian newspaper. (IV) Unlike traditional data visualisations, the blanket's pattern only features colours – and resembles a barcode more than a normal graph. (V) The stripes have been displayed as public infrastructure, on public transport in Europe, decorated buildings and even natural landmarks such as the White Cliffs of Dover in England.
- A) I      B) II      C) III      D) IV      E) V