

Set 1

1. With the discovery of new viruses, physicians and biologists now have a vast ---- of microscopic bodies to study.
- A) outcome
B) equivalent
C) advocate
D) array
E) trait
2. In recent years, the advancement of Artificial Intelligence (AI) has spurred the ---- of personal health and fitness programs, showcasing the potential to revolutionize traditional diets and longlasting one-for-all exercise methods.
- A) novelty
B) advent
C) execution
D) relevance
E) collaboration
3. Water is the most ---- element in the body, constituting the majority of its elemental mass and it is a colorless, odorless, and tasteless, existing as diatomic molecules. (H₂O)
- A) relentless
B) instantaneous
C) precise
D) comprehensive
E) abundant
4. The decline in certain contagious diseases cannot be attributed to vaccination alone; it also ---- the soaring awareness and higher sanitation over the past decades.
- A) calls for
B) refers to
C) takes off
D) leads to
E) arises from
5. Despite its rarity and lower prevalence, schizophrenia still plays a ---- role in various studies in the realm of psychology.
- A) crucial
B) detrimental
C) corruptible
D) delicate
E) deterrent
6. Certain bacteria were not resistant to most viral infections formerly, yet subsequent modifications have ---- enhanced their resilience against viruses.
- A) significantly
B) allegedly
C) punctually
D) appropriately
E) indefinitely

7. The extraordinary chameleon possesses specialized cells called chromatophores that allow it to change color and its appearance effectively to ---- its surroundings.

- A) exhibit
- B) match
- C) assemble
- D) enlighten
- E) harness

8. Although yoga is considered a recent phenomenon for personal well-being, it is in fact a practice that ---- physical fitness and psychological peacefulness for millennia.

- A) points to
- B) aims at
- C) looks up
- D) takes off
- E) puts off

9. The shift ---- renewable energy sources is perceived by many as a revolutionary step forward ---- combating climate change, although some remain skeptical about its capacity to fully replace traditional fossil fuels.

- A) with / from
- B) within / into
- C) towards / in
- D) about / for
- E) of / by

10. In intertidal zones along the coastline, as the tide advances, numerous marine organisms become submerged;----, as it retreats, they are exposed to direct sunlight and air.

- A) additionally
- B) otherwise
- C) similarly
- D) consequently
- E) conversely

11. To gain deeper insight ---- the locomotion of insects ---- their habitats, entomologists affixed a miniature camera on the back of the insect, which activates only upon stimulation by an accelerometer.

- A) with / from
- B) into / within
- C) towards / in
- D) about / for
- E) off / among

12. The scientific past is intricately connected to chronological order, where events are arranged in linear sequence, and causality ---- the direction of time's arrow.

- A) stems from
- B) adheres to
- C) looks up
- D) takes off
- E) sets up

Set 2

1. The concept of gravity ---- by ancient civilizations to a great extent, even though a comprehensive understanding of its mechanisms ---- much earlier.

- A) has been understood / was developed
- B) had been understood / will be developed
- C) was understood / had been developed
- D) is understood / would be developed
- E) used to be understood / is developed

2. Recent investigations ---- genetic mutations associated with certain diseases, prompting medical researchers to speculate that gene therapy ---- as a potential treatment option.

- A) have uncovered / could be used
- B) uncovered / should be used
- C) had uncovered / may be used
- D) will uncover / can be used
- E) uncover / will be used

3. Many studies have indicated a correlation between regular exercise and improved cognitive function, leading scientists ---- that physical activity ---- brain health.

- A) to have concluded / will benefit
- B) concluding / would benefit
- C) having concluded / benefited
- D) to conclude / benefits
- E) conclude / benefiting

4. Numerous experiments have revealed evidence of plasticity in the human brain, prompting neuroscientists ---- that the brain's structure and function ---- constantly.

- A) to acknowledge / may change
- B) acknowledging / must change
- C) having acknowledged / needed to change
- D) to have acknowledged / could change
- E) acknowledge / will change

5. Out of all the space missions which ---- since the 1960s, only the Apollo 11 mission, which took place in 1969 under the auspices of NASA, ---- humans to set foot on the lunar surface

- A) are conducted / has enabled
- B) were conducted / enables
- C) had been conducted / was enabling
- D) will be conducted / had enabled
- E) have been conducted / enabled

6. Out of all the space missions ---- since the 1960s, only the Apollo 11 mission, ---- place in 1969 under the auspices of NASA, enabled humans to set foot on the lunar surface

- A) to conduct / to have taken
- B) conducting / to be taken
- C) having conducted / to take
- D) to be conducted / taken
- E) conducted / taking

7. Whether it ---- carbohydrates, proteins, or lipids, nutrients have the power ---- metabolic processes, regulate physiological functions, and support growth and development in organisms.

- A) is / to fuel
- B) has been / fueling
- C) will be / to be fueled
- D) was / fueled
- E) had been / fuel

8. Currently, medical researchers ---- the role of gut microbiota in metabolic disorders ---- innovative treatments for obesity and diabetes, aiming to improve overall health outcomes and quality of life.

- A) are investigating / to develop
- B) investigate / developing
- C) investigated / to be developed
- D) will investigate / developed
- E) have investigated / develop

9. Before the discovery of antibiotics in the early 20th century, much of our understanding of infectious diseases ---- limited to observational studies and empirical treatments, ---- healthcare professionals with few effective interventions to combat bacterial infections.

- A) has been / to leave
- B) is / having left
- C) will be / leave
- D) was / leaving
- E) had been / left

10. As the understanding of climate change ---- over the past few decades, new regulations ----- on greenhouse gas emissions and renewable energy usage, driving efforts to mitigate the impacts of global warming and transition towards sustainable energy sources.

- A) had evolved / had been set
- B) has evolved / are being set
- C) evolved / were set
- D) evolves / are set
- E) is evolving / have been set

11. As the field of genomics ---- rapidly in recent years, new standards are being set for gene editing techniques and ethical guidelines, ---- research efforts towards precision medicine and genetic therapies.

- A) had advanced / to be guiding
- B) has advanced / guiding
- C) advanced / to be guided
- D) advanced / guided
- E) is advancing / guide

12. ---- data from a long-term international study, the researchers ---- earlier this year that fluctuations in ocean temperature are closely linked to shifts in marine biodiversity, highlighting the complex interplay between environmental factors and ecosystem dynamics.

- A) To have analyzed / have found
- B) Analyzed / are finding
- C) To analyze / find
- D) Having analyzed / found
- E) Analyzing / will find

Set 3

1. In the field of astronomy, scientists are exploring the possibility ---- the existence of extraterrestrial life forms, which would greatly expand our understanding ---- the universe.

- A) for / through
- B) of / into
- C) in / at
- D) with / from
- E) about / towards

2. ---- traditional medicine relied heavily on natural remedies and herbal treatments, modern healthcare systems have evolved to incorporate cutting-edge medical technologies and pharmaceutical interventions.

- A) As if
- B) Since
- C) Unless
- D) While
- E) Just as

3. ---- the isolated island habitat, limited gene flow, and unique environmental pressures, the endemic species of the Galápagos Islands have evolved distinct morphological traits and behavioral adaptations.

- A) Owing to
- B) Similar to
- C) In contrast to
- D) On behalf of
- E) In case of

4. The concept of artificial intelligence ---- by scientists for decades, but significant advancements ---- in its applications only recently.

- A) was explored / have seen
- B) has been explored / have been seen
- C) will be explored / will be seen
- D) had been explored / had been seen
- E) is explored / are seen

5. The survival of a species often ---- the efficient allocation of its energy resources and its ability to adapt --- environmental fluctuations and ecological shifts.

- A) on / by
- B) with / from
- C) upon / to
- D) towards / with
- E) about / for

6. ---- the rapid pace of technological innovation, many individuals struggle to keep pace with the latest developments in their respective fields and many

- A) Thanks to
- B) Due to
- C) As in
- D) As of
- E) Despite

7. Ecologists ---- the decline of coral reefs to a combination of factors, including ocean warming, pollution, and overfishing, ---- the importance of conservation efforts and ecosystem management strategies.

- A) will attribute / to highlight
- B) attributed / highlighted
- C) are attributing / highlight
- D) attribute / highlighting
- E) have attributed / to be highlighted

8. ---- the advancement of technology and the increasing collaboration between research institutions worldwide, scientific exchange has become more common, ---- accelerating the pace of discovery and innovation in fields such as biotechnology, nanotechnology, and renewable energy.

- A) Like / from
- B) About / by
- C) Without / to
- D) With / thereby
- E) In / towards

9. Many species of wildlife are at risk of extinction as a result of the destruction of their natural habitats, deforestation ---- urbanization.

- A) as well as
- B) because of
- C) including
- D) for the sake of
- E) despite

10. The effectiveness of a vaccination program is contingent ---- a high rate of participation ---- the population if the authorities are to reduce the spread of infectious diseases.

- A) in / for
- B) on / onto
- C) upon / among
- D) with / into
- E) about / with

11. The ecosystems of tropical rainforests and arctic tundras are renowned for their biodiversity, but they differ significantly from each other ---- species composition, ecological processes, and environmental conditions.

- A) in terms of
- B) in order for
- C) as a result of
- D) similar to
- E) with a view to

12. The behavior of atoms and molecules in solids and liquids is governed by fundamental principles of quantum mechanics, but their properties differ significantly from each other due to variations in ---- atomic arrangement and bonding interactions, ---- thermal motion.

- A) no sooner / than
- B) neither / nor
- C) so / that
- D) not only / but also
- E) such / that