ADJECTIVE CLAUSES

1. The South African government has committed a further sum of money to the Southern African Large Telescope (SLT), _____ enables the construction of this giant telescope to commence next year.

A) which B) thus C) by which
D) whose E) for whom

2. In many industrial processes, human operators can be replaced by control systems_____.

A) which can be used, for instance, to monitor and control pressure, temperature and motor speed
B) that the error sensor is a basic component
C) that they have the ability to control physical variables
D) by whom the difference between the actual and desired value can be reduced to zero
E) which had been capable of fulfilling a number of functions

3. Insect-eating plants have devices_____.

A) from which stickiness an insect can never make its escape
B) so that they are able to live in most parts of the world but chiefly in warm regions
C) if their prey is to be enticed into a trap
D) which enable them to catch insects and digest them with the aid of enzymes
E) of which the pitcher plant that produces pepsin is an example

4. Helium, the lightest of the inert gases, was discovered in 1868_____.

A) until its importance was recognised in scientific research at low temperature
B) as liquid helium has many remarkable qualities which are only imperfectly understood
C) when spectrographic investigations disclosed an unknown yellow line in the chromospheres of the sun
D) before studies into atomic structure would be realised
E) tough two of its stable isotopes exist as liquids right down to the absolute zero

5. ___, where the gas is ionize and, in consequence, electrically conducting.

A) In 1924, direct measurements of the height and density of the ionosphere were first made in Britain
B) The ionization is almost entirely produced by ultraviolet light and X-radiation
C) The ionization density had already increased to maximum at a height of around 150 miles
D) In 1880, the existence of a conducting layer in the high atmosphere had not been postulated
E) The ionosphere is the upper region of the earth's atmosphere

6. Any magnet, whether it is in the shape of a bar or a horseshoe, has two ends, called poles, ---- the magnetic effect is strongest.

A) which B) what C) how
D) where E) that

7. Scientists believe that elephants have sensitive cells in their feet ----.

A) while their habitat gives them an even keener sense of security
B) even though they were to carry such an enormous weight
C) which enable them to pick up low frequency vibrations from the ground
D) as their way of life was naturally a nomadic one
E) that had helped them to survive in changing but usually hostile environments

8. Life on Earth is believed to have evolved about 3.7 billion years ago, ----.

A) when there was no protective ozone layer surrounding the planet
B) although scientists thought ultraviolet radiation was an obstacle to emerging life
C) even if the earliest life is widely thought to have been based on RNA, the chemical cousin of DNA
D) while scientists are doubtful whether intense ultraviolet light from the sun may have spurred on the evolution of life
E) just as RNA was actually much more likely than other molecules to form long chains in intense ultraviolet radiation

9. The north of China, ----, needs 28 cubic kilometers more water each year.

A) so long as the Three Gorges dam project is feasible
B) however the water table beneath Beijing has fallen 59 meters in the past 40 years
C) as the country is suffering a hydrological crisis that leaves it no choice but to embark on superdam projects
D) in case the shortfall would be made up with more efficient irrigation
E) which has two-thirds of the crop land but only one-fifth of the nation's water

10. To prevent a repeat of the Columbia catastrophe, NASA requires all shuttles to dock with the space station, ----.

A) in case continued exploration of the moon could reveal much about the evolution of the solar system
B) even if ground telescopes equipped with adaptive optics can be as efficient as the Hubble Space Telescope
C) since the orbiters sent to Mars in the past few years have thoroughly mapped its topography and mineralogy
D) just as the fundamental goal of missions has been to expand the human presence in space
E) where astronauts can inspect and repair damage to the vehicles or, if necessary, await a rescue effort

11. The most responsible and cost-effective way to manage our wastewater is through treatment systems ----.

A) unless it is disposed of
B) that utilize it
C) which have been purified
D) before operations began
E) if they were efficient

12. Non-lethal weapons can offer the prospect of a less violent world ----.

A) if the military forces themselves are unconvinced
B) where lethal force is only a last resort
C) when the advantages balanced the disadvantages
D) though tear gas is less effective
E) unless the alarm goes off accidentally

13. Chemists have taken a major step forward in the production of ammonia ----.

A) because it may open up a faster synthesis of more complex nitrogen-containing molecules
B) until they used a soluble complex made of two bulky hydrocarbon rings
C) so it has meant heating nitrogen and hydrogen gases to a very high temperature
D) but their methods will replace the Haber-Bosch process
E) which is crucial for fertilizers and many other Products

14. Asexual reproduction, ----, is a way of reproducing quickly, and with no risks entailed.

A) whether it would be better in the case of shortlived organisms
B) which is used by organisms such as the water flea
C) for these are the common inhabitants of lakes and ponds
D) that established a new population
E) if it was observed in stable environments

15. Scientists at the US Geological Survey Center found that the Canadian quake, ---- measured 7.9 on the Richter scale, triggered off several smaller ones as far as Nevada and Utah.

A) in which B) which C) where
D) what E) who

16. Brazilian scientists have cracked the genetic code of a parasite ----.

A) whereby it caused a series of diseases in a range of crops, including grapes, almonds and coffee
B) that is menacing the country's vineyards
C) so that it destroyed citrus groves
D) although farmers refused to use pesticide
E) so long as it can have a devastating effect on the rain forests of the country

17. Manufacturers must demonstrate that their aircraft are capable of flying safely in cold, wet conditions ----.

A) as they went into a steep dive
B) unless they are below 0°C
C) in which they might ice up
D) as soon as the wings began to ice up
E) that they should have been able to handle

18. The search for patterns in the history of life builds on the work of generations of palaeontologists ----.

A) who went out into the field to dig up fossils
B) that the tools and data are now widely available
C) but the mathematics required was not too daunting
D) so the database would include 36,000 genera of marine organisms
E) which caused the extinction of the dinosaurs

19. Much of the scientific literature on amphibian declines focuses on decreases in tropical countries, ----.

A) unless larger numbers were involved
B) where losses have been more dramatic
C) when the imbalance will have to be corrected
D) that organisms may suffer in unpredictable ways
E) which were notorious for fluctuating widely

20. Our eyes can detect photons, the smallest quantum unit of an electromagnetic wave, ----.

A) whose frequencies lie in the narrow visible range
B) in which the human retina has more “pixels” than a consumer digital camera
C) that it increases our knowledge of the structure of atoms
D) because scientists have lacked a detector able to see an individual photon
E) if a revolution in photon detection is now under way

21. In the Pacific Ocean, the analogue of the Gulf Stream Current in the Atlantic is the Kuroshio Current, ----.

A) which flows north along the coast of Asia to the east coast of Japan
B) as it flows northeast across the Atlantic from its source in the Gulf of Mexico
C) so the Gulf Stream Current indeed contributes to Europe's warmth
D) where it transports no heat to locations on the eastern side of the Pacific
E) but ocean currents do little to warm the region

22. Researchers have found that the DNA in bacteria deteriorates sharply after about 1.1 million years, ----.

A) whereas the DNA of the average bacterium has about 3 million units
B) which consisted of just 210 units linked together
C) after which the size of the DNA gets cut in half
D) but older microorganisms didn't perform as well
E) and some of the oldest microorganisms were watched for as long as a year

23. Plants and animals were known by many different names in different places. Then came the great reform of Carolus Linnaeus and his system of Latin binomials, ---- each organism by genus and species

A) to have been identifying B) identified C) to have identified D) to be identifying E) identifying

24. Unmanned planes are presently being developed for missions ----.

A) since they would be capable of exceedingly highspeed manoeuvres
B) if they can fly entire missions upside down
C) so that submarines can be used as aircraft carriers
D) that are regarded as too dangerous for pilots to be sent on
E) though the risk to civilians on the ground would have been minimized

25. A chief defect of wire ropes is fatigue ----.

A) that stress is set up by these vibrations
B) as if there has been a gradual development of transverse cracks
C) which is induced by the vibrations set up in hoisting or lowering loads
D) even though the elastic limit of wire ropes declined with use
E) if the maximum load had been exceeded

26. Communication is perhaps the most important of the numerous tasks ---- engineers are responsible in time of war.

A) that B) by which C) what D) for which E) for whom

27. The Erie Canal was the first of the US artificial waterways built ---- the Great Lakes with the sea.

A) to be connected B) connecting C) to have connected D) to connect E) having connected

28. Farmers depend on meteorologists ---- accurate forecasts assist in successful agricultural planning.

A) who B) in which C) that D) what E) whose

29. ---- which are invisible in ordinary telescopes.

A) It is now possible to design and plan experiments concerning space
B) Radio astronomers are able to study the more distant parts of the Milky Way
C) Since then it has been possible to observe celestial bodies on radio wavelengths
D) Following this work on Cepheid variables, our knowledge of the universe
E) Conclusive evidence has been put forward about the Milky Way

30. Laser beams, ---- are useful in both medicine and industry, were first predicted in science fiction some fifty years ago.

A) which B) what C) whatever D) where E) whose

31. ---- that is open to the amateur as well as the professional.

A) Today we know a lot about meteor showers and planetary weather
B) Astronomy is one of the few sciences
C) The mapping of solar, lunar and planetary surfaces has been accurately carried out
D) Thanks to advances in modem astronomy, more discoveries have been made about asteroids, comets, novae and supernovae
E) Through the use of computers and electronic imaging devices, our knowledge of the celestial constellations has grown rapidly

32. The new sports car has a glass windbreaker ----.

A) as if acceleration were its best feature
B) since driver and passenger could talk without shouting
C) if this weren't one of the standard features
D) which keeps cabin wind to a minimum
E) once it goes into production in the autumn

33. Even today, few people outside the scientific world know the name of the Scottish physicist ----.

A) who discovered the physics of radio, TV and light itself
B) whose research into the nature of light had still to be confirmed
C) since he never lived to see the triumphant vindication of his work
D) though a law governing the behavior of atoms would be called Maxwellian Distribution
E) if he were one of the greatest scientists of the 19th century

34. — which helps it to grip the ice.

A) This new-style yacht is capable of speeds in excess of 300 km per hour
B) Such an aerodynamic shape would assist speed
C) The new yacht is expected to break speed levels on land and water as well as on ice
D) The new design of the sail enabled the craft to move forward even faster
E) The side wings of the ice yacht provide a downward force

35. Satellite pictures suggest that Saharan dust can be blown as far as the Gulf of Mexico, —.

A) while it caused increased snowfall over Turkey
B) that is the cause of the red tides there
C) where it fertilizes the water with iron
D) that it is situated almost 10 thousand kilometers away
E) since dust can be washed out of the air by rain falling

36. RNA interference, ----, can turn specific genes off.

A) that a new technology could be developed
B) whose ability to understand the brain was accelerating
C) just as hypertension in animals is common
D) in that nanoparticles can latch onto cancer cells
E) which scientists have only recently begun to Understand

37. The engineers ---- took their know-how to Japan and China in the late 19th and early 20th centuries.

A) that it would be the world's largest dam
B) who continue to travel around the world transferring technology
C) who had built railroads and dams across America
D) as engineering problems can attract worldwide interest
E) though the spread of technology is not likely to be halted

38. In biology, isolating particular enzymes is a tedious process of trial and error ----.

A) though silicon is not the best choice of material
B) if several hundred steps were involved
C) which involves many different experiments
D) until other problems could be eliminated
E) as lab experiments may prove unnecessary

39. Fullerenes are carbon molecules ----.

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

40. The part of an animal ---- gases are exchanged with the environment is called the respiratory surface.

A) how B) which C) whatever
D) what E) where

FEN BİLİMLERİ ADJETTIVE CLAUSES
CEVAP ANAHTARI

1) A	2) A	3) D	4) C	5) E	6) D	7) C	8) A	9) E	10) E
11) B	12) B	13) E	14) B	15) B	16) B	17) C	18) A	19) B	20) A
21) A	22) C	23) E	24) D	25) C	26) D	27) D	28) E	29) B	30) A
31) B	32) D	33) A	34) E	35) C	36) E	37) C	38) C	39) B	40) E