

## ÜDS FEN – Ekim 2006

1. – 18. sorularda cümlede boş bırakılan yerlere uygun düşen sözcük ya da ifadeyi bulunuz.

1. Copper is replacing aluminium in the metal interconnections on some chips to improve ----.

- A) creativity  
C) sustainability  
E) respectability
- B) credibility  
D) conductivity

2. It is hoped that these ---- projects will lead to a better understanding of typhoons and improve short-term weather forecasting.

- A) defensive  
C) comprehensive  
E) forceful
- B) excessive  
D) regrettable

3. Wouldn't it be wonderful if science and scientists were taken more ---- in the political process?

- A) sullenly  
C) satisfactorily  
E) pretentiously
- B) seriously  
D) ingeniously

4. The Sun's gravitational pull on the moon is more than twice that ---- by the Earth.

- A) attempted  
C) magnified  
E) exerted
- B) undertaken  
D) replaced

5. A mystery virus has ---- more than 90 per cent of some bird species in India.

- A) found out  
C) turned up  
E) put off
- B) broken through  
D) wiped out

6. The report emphasizes that, due to serious acidification in the coastal waters, many marine organisms have ----.

- A) died out  
C) used up  
E) ended up
- B) taken off  
D) run down

7. The Proctor Prize ---- annually since 1950 to an outstanding scientist who ---- known for effective communication of complex ideas.

- A) was being presented / is being  
B) was presented / had been  
C) would be presented / will be  
D) had been presented / has been  
E) has been presented / is

8. In their quest to build a computer that ---- advantage of the weirdness of quantum mechanics, physicists ---- a number of disparate technologies.

- A) is taking / will be testing  
B) will take / are testing  
C) must take / had tested  
D) took / have had to test  
E) had taken / have tested

9. Individuals who ---- that animals ---- feelings are usually accused of anthropomorphism, or ascribing human traits to nonhuman beings.

- A) had claimed / had  
B) claimed / will have  
C) are claiming / would have  
D) claim / have  
E) would claim / must have had

10. The reason why the moon doesn't orbit the Sun is because the Earth is also ---- towards the Sun, and so the two ---- through space together.

- A) going to pull / will have been moving  
B) having been pulled / moved  
C) pulling / were moving  
D) to pull / move  
E) being pulled / are moving

11. The recovery and identification of plant remains from archaeological contexts are merely the first steps in a wide-ranging series of research issues that ---- up paleoethnobotany, also ---- as archaeobotany.

- A) made / knowing  
B) will make / is known  
C) make / known  
D) has made / having known  
E) had made / is to be known

12. Exploration of the Arctic began with the search ---- the Northwest Passage as a short cut ---- the Far East.

- A) for / to  
D) on / with
- B) in / in  
E) from / of
- C) by / for

**13. Roger Revelle's calculations about what happens to the carbon dioxide released ---- the burning of fossil fuels were correct ---- showing that much of it would end up in the sea.**

- A) from / with      B) by / in      C) to / by  
D) in / for      E) through / about

**14. Electromagnetic traps for atomic ions work well for experiments using a small number of ions ---- they are completely impractical for large-scale systems.**

- A) so long as      B) now that  
C) although      D) in case  
E) whether

**15. The trend of increasing carbon dioxide in the atmosphere is documented by the examination of air bubbles trapped in glacial ice ---- by direct measurements of the atmosphere.**

- A) as well as      B) unless  
C) because of      D) also  
E) whereas

**16. Being a scientist does not prevent one from participating in other fields of human endeavour, ---- being an artist does not prevent one from practising science.**

- A) so far as      B) rather than  
C) so that      D) as well as  
E) just as

**17. The book adheres ---- closely to a standard chemistry curriculum.**

- A) seldom      B) such      C) as  
D) fairly      E) enough

**18. It was not obvious to scientists what the solution would be to the cosmic radiation astronauts are exposed to; ---- was it obvious that there would be any solution at all.**

- A) either      B) so      C) and  
D) but      E) nor

**19. – 23. sorularda aşağıdaki parçada numaralanmış yerlere uygun düşen sözcük ya da ifadeyi bulunuz.**

We can certainly hear external sounds while we are dreaming. Otherwise, a dreamer couldn't be (19) ---- by shouting. Around 40 to 50 per cent (20) ---- dreams also contain sounds, while touch, smell, taste and pain are present in a (21) ---- smaller percentage of dreams. Sounds occurring near a sleeper (22) ---- is already dreaming can be incorporated into the dream. However, the sounds (23) ---- will not cause the sleeper to dream.

**19.**

- A) ensured      B) awakened  
C) heard      D) embarrassed  
E) calmed

**20.**

- A) by      B) to      C) for  
D) of      E) in

**21.**

- A) too      B) more      C) much  
D) very      E) most

**22.**

- A) who      B) what      C) where  
D) when      E) how

**23.**

- A) which      B) themselves  
C) of whom      D) whatever  
E) itself

24. – 35. sorularda, verilen cümleyi uygun şekilde tamamlayan ifadeyi bulunuz.

**24. Though there were daunting technical obstacles about the Channel Tunnel to be overcome, ----.**

- A) the bridge has never been completed
- B) these are not nearly as worrying as the costs involved
- C) England and France were eventually linked by an under-sea railway
- D) an army of engineers is involved in the project
- E) doubts concerning its safety were still being expressed

**25. As ships use less fuel than any other form of transport, ----.**

- A) shipping might have increased rapidly in this period
- B) the main environmental impact was on marine life
- C) shipping companies have adopted new strategies to reduce fuel costs
- D) ships take on a ballast of water in one port
- E) they are often regarded as environmentally friendly

**26. ---- that seemingly obsolete methods can still work well.**

- A) The discovery delighted them
- B) The procedures are used for fabricating electronic devices
- C) The problem with copper was
- D) The lesson to be learned from this positive result is
- E) An ingenious solution to the problem emerged

**27. If astronauts have nothing meaningful to do, ----.**

- A) the two programmes should have been kept quite separate
- B) the programme clearly suffered from mismanagement
- C) there is no point in sending them into space
- D) they exceeded the estimated cost by several billion dollars
- E) newer proposals may cut the price by half

**28. Once the wind had reached the critical threshold of 94 miles per hour, ----.**

- A) the anchor-bolt systems have already weakened
- B) it took only about 30 seconds for the bridge to collapse
- C) a basic problem is that of corrosion
- D) but the order of collapse was related to the complex and changing wind directions
- E) it is possible to protect structures against the force of an F-1 tornado

**29. Unless all countries in the developed world reduce their fossil fuel consumption drastically, ----.**

- A) problems relating to global warming are far too numerous
- B) this was not enough to improve fuel efficiency
- C) the price of petrol rises steadily
- D) there have been major innovations in personal transportation vehicles
- E) the negative consequences of global warming will increase

**30. 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

**31. ----, scientists can trace their common ancestral genetic connections.**

- A) It is only in the past 20 years, however
- B) Whatever tools and cognitive skills the emigrants had taken with them
- C) Though she was not the only woman alive at the time
- D) When many different populations are studied through a comparison of genetic markers
- E) Since the only clues were the sparsely scattered bones and artefacts our ancestors left behind

**32. The discovery of planets outside our solar system is of great importance, ----.**

- A) as individual dust particles are so small
- B) because the triangle of light stretches along the Sun's path in the sky
- C) since it is the first tangible clue that we may not be alone in the universe
- D) if one can communicate with extraterrestrial beings
- E) whether similar collections of worlds surround other stars in the galaxy

**33. Many species of fish are poisonous to eat, ----.**

- A) which have a fatally poisonous toxin called tetrodotoxin
- B) but the most poisonous of all are some kinds of fish in the Red Sea and Indo-Pacific region
- C) whereas the fish's ovaries, intestines and skin contain the poison
- D) even if less than 0.1 g of the poison is enough to kill an adult in as little as 20 minutes
- E) since some people think they are also delicious

**34. The early Arctic explorers could locate themselves by looking at the stars ----.**

- A) for the purpose of using the most accurate compasses available
- B) that they worked out the latitude by using sextants
- C) since longitude is difficult to determine
- D) as long as they could determine the exact time
- E) despite matching celestial observations to certain points in time

**35. 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

**36. – 38. sorularda, verilen İngilizce cümleye anlamca en yakın Türkçe cümleyi bulunuz.**

**36. Chemistry, as a field of study based on scientific principles, came into being in the latter part of the eighteenth century.**

- A) Bilimsel ilkelere dayalı bir çalışma alanı olarak kimya, on sekizinci yüzyılın son bölümünde ortaya çıkmıştır.
- B) Çok öncelerden beri var olan kimya, on sekizinci yüzyılın son bölümünde bilimsel ilkelere dayalı bir çalışma alanı olarak gelişmiştir.
- C) On sekizinci yüzyılın son bölümüne doğru ortaya çıkan kimya, bilimsel ilkelere dayalı bir çalışma alanıdır.
- D) Bilimsel ilkelere dayalı bir çalışma alanı olan kimya, on sekizinci yüzyılın son bölümünde gelişmesini tamamlamıştır.
- E) On sekizinci yüzyılın son bölümünde ortaya çıkan bilimsel ilkelere dayalı çalışma alanlarından biri kimyadır.

**37. Certain species of bees and ants exist as colonies made up of several different individuals, each adapted for some particular function.**

- A) Arıların ve karıncaların belirli türleri, çeşitli bireyleri içeren koloniler oluşturur ve her koloninin farklı bir göreve uyum sağladığı bilinmektedir.
- B) Koloniler halinde yaşayan bazı arı ve karınca türleri, belli bir göreve uyum sağlamış birkaç bireyden oluşur.
- C) Farklılaşmış bireylerin oluşturduğu koloniler halinde varlıklarını sürdüren bazı arı ve karınca türleri, belli işlevlere uyum sağlamıştır.
- D) Belirli özel işlevlere uyum sağlamış olan arıların ve karıncaların bazı türleri, çok değişik bireylerden oluşan koloniler halinde yaşar.
- E) Arıların ve karıncaların bazı türleri, her biri belli bir işleve uyum sağlamış birtakım değişik bireylerden oluşan koloniler halinde varlıklarını sürdürür.

**38. Contrary to popular belief, it is not Earth's magnetic field that shields people on the ground from cosmic rays, but rather the bulk of the atmosphere.**

- A) Yeryüzündeki insanları kozmik ışınlardan atmosferin değil daha çok yerkürenin manyetik alanının koruduğu, yaygın bir yanlış inanıştır.  
B) Halkın inandığından farklı olarak, yeryüzündeki insanları yalnız atmosferin kalınlığı değil yerkürenin manyetik alanı da kozmik ışınlardan korumaktadır.  
C) Yaygın inancın tersine, yerküre kozmik ışınlardan kendi manyetik alanından çok atmosferin kalınlığı sayesinde korunabilmektedir.  
D) Yaygın inancın tersine, yeryüzündeki insanları kozmik ışınlardan koruyan, yerkürenin manyetik alanı değil daha çok atmosferin kalınlığıdır.  
E) Yeryüzünü çevreleyen kalın atmosferin yanı sıra yerin manyetik alanının da insanları kozmik ışınlardan koruduğuna yaygın olarak inanılmaktadır.

**39. – 41. sorularda, verilen Türkçe cümleye anlamca en yakın İngilizce cümleyi bulunuz.**

**39. Ateşin keşfinden sonra, insanlar, yüksek sıcaklıklara mâruz kalan belirli kayalar ve minerallerde değişiklikler fark etmeye başladılar.**

- A) Following the discovery of fire, people noticed that, under high temperatures, certain changes in rocks and minerals began.  
B) After the discovery of fire, people began to notice changes in certain rocks and minerals exposed to high temperatures.  
C) When fire was discovered, it was noticed that, because of high temperature, certain changes began to take place in rocks and minerals.  
D) With the discovery of fire, man became aware of certain changes which began to take place in rocks and minerals due to high temperatures.  
E) After fire was discovered, human beings became aware that, due to high temperatures, certain rocks and minerals began to change.

**40. Bilgisayarların enerji ihtiyacını azaltmaya yönelik stratejilerin bazıları, otomobillerde yakıt tasarrufunu sağlamak için alınan önlemlere benzemektedir.**

- A) In order to provide fuel efficiency in automobiles, some of the solutions recommended for reducing the energy needs of computers are being implemented.  
B) One of the best strategies for reducing the energy needs of computers has been taken from the measures often used to ensure fuel efficiency in automobiles.  
C) Some of the strategies for reducing the energy demands of computers are similar to measures taken to ensure the fuel economy of automobiles.  
D) In order to reduce the energy needs of computers, certain strategies resembling the measures recommended to provide fuel efficiency in automobiles are being used.  
E) The energy needs of computers can easily be reduced by implementing some of the strategies recommended for providing fuel efficiency in automobiles.

**41. En eski çağlardan beri kullanılmalarına rağmen alaşımlar, modern teknolojiye hâlâ vazgeçilmez bir yere sahiptir ve bilim adamları özel nitelikli yeni alaşımlar geliştirmeye devam etmektedir.**

- A) Although alloys have been used since the earliest times, they still have an indispensable place in modern technology, and scientists continue to develop new alloys with special properties.  
B) Alloys have been in use ever since the earliest times and are still essential for modern technology, but scientists are hard at work to develop new alloys with special properties.  
C) Although the use of alloys goes back to the earliest times, scientists still continue to develop new alloys with special properties, which have an indispensable place in modern technology.  
D) Even though alloys were used in ancient times, it is in modern technology that they have been most indispensable and, therefore, scientists continue to work for the development of new alloys with special properties.  
E) Alloys have continuously been in use since ancient times and are still of essential importance for modern technology despite the fact that scientists continue to develop new alloys with special properties.

42. – 46. sorularda boş bırakılan yere parçanın anlam bütünlüğünü sağlamak için getirilebilecek cümleyi bulunuz.

**42. Engineers are problem solvers. ----. A child playing with building blocks who learns how to construct a taller structure is doing engineering. A secretary who stabilizes a wobbly desk by inserting a piece of cardboard under the short leg has engineered a solution to the problem.**

- A) Certainly, engineers benefit from scientific theory
- B) Early in human history, there were no formal schools to teach engineering
- C) This approach resulted in some remarkable accomplishments
- D) In a sense, all humans are engineers
- E) Sometimes a solution is required before the theory can catch up to the practice

**43. Gecko lizards can run up a wall or across a ceiling with ease because of their remarkable toes. But gecko toes aren't sticky in the usual way, like duct tape or Post-it notes. ----.**

- A) In spite of this, the ability of geckos to stick to surfaces has attracted scientific scrutiny since the time of Aristotle
- B) Instead, gecko toes have a combination of structures that act together as a smarter adhesive
- C) Hence, it is not surprising that scientists are trying to create artificial, geckolike adhesives
- D) The theory that gecko toe pads act as suction cups has since been disproven
- E) A gecko can stop itself by re-attaching its toes to passing leaves or branches

**44. ----. The dimension of length may be described by units of metres, feet, inches, and so forth. Thus, dimension is an abstract idea, whereas unit is more specific.**

- A) The metre is currently defined by the distance light traverses in a given length of time
- B) Any measuring system must establish base units from which all other units are derived
- C) For units of measure to be useful, they must be standardized so that business transactions are unambiguous
- D) The metre was first defined in 1793 by dividing the "quadrant of meridian" into 10 million parts
- E) The distinction between dimension and unit is best understood by example

**45. If you have ever burned your finger on a metal pot while waiting for the water in it to boil, you know that water heats up much more slowly than metal. In fact, because of hydrogen bonding, water has a better ability to resist temperature change than most other substances. ----.**

- A) Because of this property, Earth's giant water supply moderates temperatures, keeping them within limits that permit life
- B) Temperature and heat are related, but different
- C) Another way water moderates temperatures is by evaporative cooling
- D) At 66% of your body weight, water helps moderate your internal temperature
- E) Water must absorb an unusually large amount of heat in order to vaporize because its hydrogen bonds tend to hold the molecules in place

**46. Replication is not the only way to improve accuracy in scientific experimentation. ----. Blocking is a method of experimental design that reduces the effects of chance errors; modelling, on the other hand, is much less familiar to practicing scientists.**

- A) Accordingly, most scientists try to develop new and more reliable methods
- B) Scientific data always contain a mixture of *signal* and *noise*; the scientist's job is to find the signal
- C) Two other strategies, called *blocking* and *modelling*, can provide at least one replication's worth of accuracy at almost no cost
- D) Replication is one of the finest ideas in the history of science, but it faces a severe law of diminishing returns
- E) Scientists prefer an average of two replicates to a single unreplicated observation because the former is likely to be more accurate

**47. – 51. sorularda, karşılıklı konuşmanın boş bırakılan kısmını tamamlayabilecek ifadeyi bulunuz.**

47.

Michelle: - **It says here that the Russian Space Agency has developed a new alternative to NASA's space shuttle.**

Don: - ----

Michelle: - **Kliper, and it seems that it has gained a lot of interest from the European Space Agency and Japan.**

Don: - **Well, let's hope they get enough money to get it off the ground.**

- A) Well it's high time somebody did so.  
B) Oh? What's it called? Has it drawn any scientific attention?  
C) I wonder if it will be reliable.  
D) Is it as complex as the space shuttle?  
E) Really? Will it be able to be re-launched like the shuttle is?

48.

Andrew : - **This book is about the early history of the computer and the Internet.**

Mark: - ----

Andrew: - **Actually it is. It places them firmly into the social background of the period.**

- A) Weren't early computers more or less typewriters?  
B) Obviously, much research has gone into it.  
C) All I know about early computers is that they were incredibly large.  
D) That doesn't sound very interesting to me!  
E) It's hard to imagine life without either of them, isn't it?

49.

Pam: - **I can't understand how anyone could ever dream of constructing a bridge to join so distant an island to the mainland.**

Sarah: - ----

Pam: - **Really? What?**

Sarah: - **One day, roughly 150 children were drowned when the boat taking them to school was wrecked by storms.**

- A) It must have cost those who designed it a lot of sleepless nights!  
B) The length is one problem; the weight a more serious one.  
C) It makes one wonder if anything is impossible!  
D) It's an amazing engineering achievement!  
E) They had a very compelling reason for doing so.

50.

Alan: - **From music sets to cell phones they're making everything smaller and smaller. But how?**

Joe: - **It's partly due to miniaturized electronics, but they're making the motors smaller, too.**

Alan: - ----

Joe: - **No; the physics principles remain the same. The key is design and manufacturing ingenuity.**

- A) Are the new, smaller motors very different from earlier ones?  
B) Is it true that MP3 players usually have two motors?  
C) Do they still turn on small ball or cylinder bearings?  
D) Well, what's happening to the prices?  
E) Everything is becoming so small that we shall soon be unable to find anything!

51.

Hector: - **This article talks about a double-blind test for new medication.**

Val: - ----

Hector: - **Well, it refers to a type of scientific testing in which neither the subjects nor the experimenters know the makeup of the test and control group during the actual course of the experiments.**

Val: - **I guess that's the best way to prevent anyone affecting the outcome of the experiment.**

- A) I've already read it.  
B) Did you enjoy reading it?  
C) What kind of medication?  
D) I think all medication should be thoroughly tested before doctors prescribe it.  
E) What does that mean?

**52. – 56. sorularda cümleler sırasıyla okunduğunda parçanın anlam bütünlüğünü bozan cümleyi bulunuz.**

52. (I) With the advent of relativity theory, the physicist Max Born was the first to develop a relativistic theory of the rigid electron. (II) The theory brought him into contact with Albert Einstein, first in 1909 and later during World War I. (III) He and Einstein were to remain close friends. (IV) Studies in nuclear physics have had a pattern of staggering progress. (V) Their correspondence is one of the treasures of 20<sup>th</sup> century history.

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

**53. (I)** A compound is a substance containing two or more elements in a fixed ratio. **(II)** The smallest unit of an element having all the characteristics of that element is an atom. **(III)** They are much more common than pure elements in nature. **(IV)** In fact, few elements exist in a pure state in nature. **(V)** Many compounds consist of only two elements; for instance, table salt (sodium chloride, NaCl) has an equal number of parts of the elements sodium and chlorine.

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

**54. (I)** In his article “The Future Doesn’t Need Us”, the scientist Bill Joy describes advances in three fields: genetic engineering, nanotechnology and robotics. **(II)** The first has created the possibility of gene therapy that could bring diseases like cancer under control. **(III)** These technological advances carry a strong potential for improving our quality of life in the not-too-distant future. **(IV)** The second refers to technologies that manipulate matter on the extremely small scale of nanometres, allowing the creation of novel plant species or new viruses. **(V)** Finally, robotics will eventually raise the possibility of intelligent and self-replicating machines that are barely distinguishable from humans.

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

**55. (I)** With shipping predicted to increase threefold within the next 30 years, there are plans for a zeroemissions ferry. **(II)** It will catch the wind through computer-controlled sails covered by solar cells to generate extra electricity. **(III)** The vessel will have a main hull surrounded by four side hulls, cutting drag. **(IV)** This will also eliminate the need for ballast water, which can have a negative environmental impact. **(V)** Shipping is one of the cheaper ways of transporting goods across the vast oceans of our planet.

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

**56. (I)** The narwhale has an eight-foot-long spiralled tooth that makes it resemble a unicorn of the sea. **(II)** Some thought that the whale used it to break arctic ice; others theorized that it served as a weapon in male fights. **(III)** Narwhales typically live for 40 to 50 years, and seldom leave their arctic habitat. **(IV)** The tooth, in fact, may be a giant sensor for navigating and hunting. **(V)** It appears capable of detecting changes in water temperature, pressure, and particle gradients linked with salinity and prey.

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

57. – 60. soruları aşağıdaki parçaya göre cevaplayınız.

Over billions of years, life has evolved into a spectacular diversity of forms – more than a million species presently exist. For each, the source of its uniqueness is the particular combination of proteins found within its cells. Yet in the midst of this diversity, the similarities between living things are profound. For example, although the fruit fly genome encodes about 14,000 different proteins, and humans have two to three times that number, many proteins are still recognizably similar in sequence and task, reflecting their common ancestry. In fact, when scientists have put human disease genes into flies, they often cause the same symptoms in the insects as they do in people. Furthermore, addition of a normal human gene can sometimes compensate for the deletion of the same gene from the fly.

**57. It is understood from the passage that ----.**

- A) the proteins encoded in the human genome and that of the fruit fly bear many similarities
- B) all human genes cause disease symptoms in flies
- C) humans have the same number of proteins in their genome as fruit flies
- D) humans and fruit flies have no similarities in their genomes
- E) humans and fruit flies are the only species with innumerable proteins in their genomes

**58. It is pointed out in the passage that ----.**

- A) there are no similarities at all between different species
- B) the combinations of proteins in living beings have yet to be fully identified
- C) the cause of the variety between species cannot be understood
- D) the evolution of life on earth has taken a very, very long period of time
- E) the various species do not share a common origin

**59. It is emphasized in the passage that ----.**

- A) the huge diversity between the species is rarely due to the process of evolution
- B) species on earth show a great deal of diversity, but, at the same time, remarkable genetic resemblance
- C) the idea that human genes can be implanted into flies has aroused much controversy among scientists
- D) the symptoms caused by disease genes can hardly be specified at first glance
- E) the variety of proteins in the fruit fly genome still needs to be thoroughly explored

**60. When humans and fruit flies are compared genetically, it is seen that ----.**

- A) there are no similarities between them at all
- B) there are many differences which still require further explanation
- C) human disease genes do not affect fruit flies when implanted into them
- D) fruit flies are much more prone to suffer from disease
- E) several of their proteins display the same pattern of arrangement and function

**61. – 64. soruları aşağıdaki parçaya göre cevaplayınız.**

Carbon dioxide (CO<sub>2</sub>), like water and most other pure substances, exists in solid, liquid, and gaseous states and can undergo changes from one state to another. Solid CO<sub>2</sub>, however, has an interesting property: at normal pressures, it passes directly to the gaseous state without first melting to the liquid state. This property, together with the fact that this change occurs at -78°C, makes solid CO<sub>2</sub> useful for keeping materials very cold. Because solid CO<sub>2</sub> cools other objects and does not leave a liquid residue, it is called "dry ice". As for liquid CO<sub>2</sub>, it is obtained by putting carbon dioxide gas under pressure. When liquid CO<sub>2</sub> evaporates, it absorbs large quantities of heat, cooling as low as -57°C. Because of this property, it is often used as a refrigerant. If the compressed gas from the evaporating CO<sub>2</sub> liquid is allowed to expand through a valve, the rapidly cooled vapour forms solid carbon dioxide "snow". This CO<sub>2</sub> snow is compacted into blocks and is the source of dry ice.

**61. It is understood from the passage that liquid carbon dioxide ----.**

- A) does not exist at normal pressures, but becomes available by pressurizing CO<sub>2</sub> gas
- B) changes into the gaseous state at temperatures ranging from -57°C to -78°C
- C) does not have as many different uses as the other states of CO<sub>2</sub> have
- D) is used widely in obtaining solid carbon dioxide under high pressure
- E) never stays stable but soon changes into the solid state

**62. It is clear from the passage that solid carbon dioxide "snow" ----.**

- A) is the only form that solid CO<sub>2</sub> usually takes under normal pressures
- B) is very effective in refrigeration if it is used in large quantities
- C) has almost the same properties as dry ice although it leaves liquid residue on objects, making it a poor refrigerant
- D) is formed when the compressed gas obtained from the evaporation of liquid CO<sub>2</sub> expands and, hence, rapidly cools
- E) turns into liquid CO<sub>2</sub> when it absorbs heat and, consequently, melts

**63. According to the passage, solid carbon dioxide ----.**

- A) differs from liquid carbon dioxide in that it has a less significant cooling effect
- B) changes right away into the gaseous state at -78°C, without first melting into the liquid form
- C) absorbs more heat than the liquid and gaseous forms
- D) is the most common form carbon dioxide takes as a substance
- E) has a wide range of properties that make it suitable for various uses

**64. One can conclude from the passage that carbon dioxide ----.**

- A) changes into a series of states only when it is subjected to unusual levels of pressure
- B) is the most common substance used in the production of dry ice
- C) requires very high pressure in order to change from one state to another
- D) is a substance which, similar to water, can be found in three different states
- E) must be stored and used at very low temperatures

65. – 68. soruları aşağıdaki parçaya göre cevaplayınız.

The primary means of reproduction and dispersal for Earth's most successful plants is seeds, which develop from the female gametophyte and its associated tissues. Seed plants show the greatest evolutionary complexity in the plant kingdom and are the dominant plants in most terrestrial environments. Seeds are reproductively superior to spores for three main reasons. First, a seed contains a multicellular, well-developed young plant with embryonic root, stem, and leaves already formed, whereas a spore is a single cell. Second, a seed contains a food supply. After germination, the plant embryo is nourished by food stored in the seed until it becomes self-sufficient. Because a spore is a single cell, few food reserves exist for the plant that develops from a spore. Third, a seed is protected by a resistant seed coat. Like spores, seeds can live for extended periods of time at reduced rates of metabolism, germinating when conditions become favourable.

**65. It can be understood from the passage that ----.**

- A) seeds cannot be dispersed as easily as spores
- B) spores, like seeds, develop from a plant's female gametophyte and its associated tissues
- C) spores contain an adequate food supply within their single cell
- D) spores are a better method of plant reproduction than seeds
- E) seeds are much more complex in structure than spores

**66. The passage, as a whole, ----.**

- A) shows the superiority of seeds to spores as a reproductive method for plants
- B) focuses on spores and their advantages as a reproductive method for plants
- C) describes the evolutionary complexity of seeds
- D) stresses the similarities between seeds and spores
- E) explains the differences in nourishment between seeds and spores

**67. One similarity between spores and seeds pointed out in the passage is that ----.**

- A) both of them are self-sufficient
- B) they can both stay alive for a very long time, waiting for a good time to germinate
- C) their plants both thrive in terrestrial environments
- D) they are both protected by a hard covering
- E) they both have multicellular structures

**68. It is clear from the passage that ----.**

- A) the food stored in seeds can serve to germinate plants, but not to nourish animals
- B) seeds and seed plants have been intimately connected with the development of human civilization
- C) plants coming from seeds are more commonly found than those coming from spores
- D) flowering plants are extremely diverse
- E) the ovules contained in some seeds are protected while those in others are not

69. – 72. soruları aşağıdaki parçaya göre cevaplayınız.

The most common view among scientists is that mathematics and physics are quite different. Physics describes the universe and depends on experiment and observation. The particular laws that govern our universe, such as Newton's laws of motion, must be determined empirically and then asserted like axioms that cannot be logically proved, merely verified. Mathematics, on the other hand, is somehow independent of the universe. Results and theorems, such as the properties of the integers and real numbers, do not depend in any way on the particular nature of reality in which we find ourselves. Mathematical truths would be true in any universe.

**69. It is suggested in the passage that, unlike mathematics, physics ----.**

- A) makes much use of logic in order to reach a conclusion
- B) formulates laws that need not be verified by experimentation
- C) has undergone much development since Newton's time
- D) is essentially concerned with the world of matter
- E) states facts about the universe that are taken for granted

**70. We understand from the passage that, for most scientists, ----.**

- A) logical reasoning is as essential as experiment and observation in any scientific study
- B) mathematics and physics are the two fields of science which have similar scientific concerns and are, hence, interdependent
- C) mathematics, like physics, is also indispensable for a scientific study of the universe
- D) the Newtonian laws have completely altered man's perception of the universe
- E) physics is essentially empirical, whereas mathematics is not

**71. As pointed out in the passage, the idea that mathematics and physics differ from each other ----.**

- A) has often been queried and debated since Newton
- B) is accepted by most scientists
- C) has only recently been accepted by the scientific community
- D) is evidence of a prevailing prejudice among mathematicians and physicists
- E) was originally put forward by Newton after he formulated his laws of motion

**72. It is clear from the passage that any information physics reveals about our universe cannot be valid ----.**

- A) as it is impossible for every scientist to agree to it
- B) so long as it is not explained mathematically
- C) since it is not always proved logically
- D) unless it is confirmed through experiment and observation
- E) because the methods used for verification are often controversial

73. – 76. soruları aşağıdaki parçaya göre cevaplayınız.

The entire future of human space exploration rests on a patch of lunar ice. For the past two years NASA has focused on designing a new crew vehicle and launch system that could return astronauts to the moon by 2018. The agency's ultimate goal is to establish a permanent lunar base and use it for a human mission to Mars. But the grand plan depends on a risky prediction that NASA will find water ice in a permanently shadowed crater basin at one of the moon's poles. Plentiful ice deposits would be an asset for lunar colonists, who could use the water for life support or convert it to hydrogen and oxygen rocket fuel. And two orbiters sent to the moon in the 1990s, Clementine and Lunar Prospector, found evidence of ice in perpetually shadowed polar areas where consistently frigid temperatures would preserve the water carried to the moon by comet and meteorite impacts. But some scientists have disputed Clementine's radar data, and the anomalous neutron emissions observed by Lunar Prospector could have been caused by atomic hydrogen in the lunar soil instead of ice.

**73. It can be understood from the passage that some scientists ----.**

- A) think that human space exploration should not continue
- B) want to send two orbiters to the moon, called Clementine and Lunar Prospector
- C) disagree with the evidence that seems to show the existence of water ice on the moon
- D) do not believe that comets and meteorites could possibly have carried water to the moon
- E) maintain that a human mission to Mars could not be successfully launched from the moon

**74. According to the passage, in order for humans to live permanently on the moon, ----.**

- A) the frigid polar areas would first need to be artificially heated
- B) NASA needs to first prove the existence of water ice there
- C) NASA must first prepare a human mission to Mars
- D) NASA must remove the plentiful ice deposits at the poles
- E) water must be carried there by the two orbiters, Clementine and Lunar Prospector

**75. It is pointed out in the passage that Clementine and Lunar Prospector ----.**

- A) were used to establish a permanent lunar base
- B) tried to preserve the water carried to the moon by comet and meteorite impacts
- C) will be used as crew vehicles to transport astronauts to the moon
- D) returned faulty data during their exploration of the moon's polar regions
- E) have, according to some scientists, discovered traces of ice in the polar areas of the moon

**76. The passage makes it clear that NASA wants to return astronauts to the moon ----.**

- A) to protect it from further damage from comet and meteorite impacts
- B) for a full exploration of atomic hydrogen in the lunar soil
- C) in order to build a permanent base there for space exploration
- D) so that they can bring the ice found there back to Earth
- E) despite the fact that the lunar surface has frigid temperatures

**77. – 80. soruları aşağıdaki parçaya göre cevaplayınız.**

Despite bacteria's presence in all parts of the planet, their diversity in the world's soils is poorly understood. To better understand what makes the organisms thrive, Duke University researchers trekked far and wide to collect a few centimetres of dirt as samples from 98 locations across North and South America, then analyzed each sample for genetic variation. To their surprise, the strongest predictor of high diversity was neutral pH. The acidic soil of the Peruvian Amazon, for example, harboured far fewer bacterial species than did the neutral dirt of the arid American Southwest. "There are a lot of variables that didn't turn out to be very important," says the researcher Robert Jackson, who adds that a more complete search for different habitats might turn up other stimulators of diversity, such as carbon abundance.

**77. According to the passage, scientists were surprised that ----.**

- A) they had to trek to so many different areas to conduct their research into bacterial species diversity
- B) carbon abundance was revealed to be the most important predictor of diversity of bacterial species
- C) bacteria is present in all parts of the planet
- D) the arid American Southwest is home to many more species of bacteria than the lush Peruvian Amazon
- E) they would have to perform more complete research in the future

**78. It is understood from the passage that further research must be carried out ----.**

- A) because the previous research was not conducted properly
- B) in order to find other indicators of diversity in bacterial species
- C) so that all the bacterial species of North and South America can be identified
- D) to determine exactly the genetic variations of bacterial species
- E) so that scientists can increase the diversity of bacterial species

**79. The passage points out that the best conditions for diversity of bacteria species ----.**

- A) so far seem to exist in soil having a neutral pH
- B) were found in the Peruvian Amazon region
- C) have not yet been discovered
- D) have now been fully researched
- E) are found in a few centimetres of dirt

**80. It is clear from the passage that the researchers from Duke University ----.**

- A) do not plan to do any more research into bacterial diversity
- B) were more interested in the American Southwest than in the Amazon basin
- C) have largely focused on the types of bacteria found in acidic soil
- D) have carried out their fieldwork to throw light upon the causes of bacterial diversity
- E) had difficulty in trekking during their search

**TEST BİTTİ.  
CEVAPLARINIZI KONTROL EDİNİZ.**

## CEVAP ANAHTARI

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