

ÜDS FEN Aralık 2002

1. - 18. sorularda, cümlede boş bırakılan yere uygun düşen sözcük ya da ifadeyi bulunuz.

1. We read continually about global warming ---- to virtually every significant weather event that ---- these days.

- A) having been linked / is occurring
- B) being linked / occurs
- C) to be linked / occurred
- D) linking / would occur
- E) to have been linked / had occurred

2. If the discovery ----, it ---- speculation that the Galaxy is teeming with life.

- A) had been confirmed / would fuel
- B) will be confirmed / will have fuelled
- C) is confirmed / will fuel
- D) has been confirmed / has fuelled
- E) was confirmed / would have fuelled

3. Often the need to clean up the atmosphere ---- through major environmental disasters, of which the London smog of 1952 still ---- a prime example.

- A) was realised / remains
- B) has been realised / remained
- C) would be realised / would remain
- D) was being realised / will remain
- E) had been realised / has remained

4. During the past 40 years, hydroponic farming ---- considerably in a number of areas where temperatures are too extreme for ordinary agriculture.

- A) had progressed
- B) has progressed
- C) progresses
- D) would have progressed
- E) is progressing

5. Dust and other particles suspended in the atmosphere come in a bewildering range of sizes, ---- minuscule particles of partially burned fuel ---- relatively massive grains of pollen.

- A) with / from
- B) of / over
- C) from / to
- D) at / by
- E) into / of

6. Once chemists had developed techniques to peer ---- the heart of chemical reactions, they opened ---- a whole new world for study.

- A) for / on
- B) up / in
- C) at / with
- D) into / up
- E) in / for

7. ---- photographers require short exposures to capture fast moving objects, chemists need short laser pulses to study rapid reactions.

- A) In contrast
- B) In spite of
- C) In case
- D) Since
- E) Just as

8. According to neo-Darwinism, ---- mutation is recognised as the ultimate source of genetic variation, natural selection is given the dominant role in shaping the genetic make-up of populations.

- A) however
- B) although
- C) whether
- D) before
- E) unless

9. Networks without controlled access can ---- ensure the security or privacy of stored data, ---- keep network resources from being exploited by "hackers".

- A) neither / nor
- B) so / as
- C) only / but
- D) rather / than
- E) also / but

10. The research team was relieved to learn that the results of the experiment were in ---- their expectations.

- A) competition with
- B) place of
- C) favour of
- D) excess of
- E) accord with

11. 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

12. ---- what is generally assumed, the number of animals remaining in a threatened species may actually rise as it approaches the brink of extinction.

- A) In view of
- B) Contrary to
- C) Surprisingly enough
- D) Needless to say
- E) Due to

13. The ---- of bromine in the Dead Sea water is 100 times that in the ocean.

- A) extraction
- B) concentration
- C) composition
- D) complexity
- E) sufficiency

14. With a gestation period of six months, bats are the slowest reproducing mammal for their size and therefore especially ---- to extinction.

- A) applicable B) reliable C) variable
D) sizeable E) vulnerable

15. Iodine remains a mysterious substance; and ----, the iodine in the sea is in a constant state of chemical change.

- A) comprehensively B) comparably
C) conditionally D) apparently
E) excessively

16. In the steel industry there has been a progressive increase in capital outlay; but fortunately this has been ---- by a fall in labour costs.

- A) accompanied B) conducted
C) reinforced D) rejected
E) engaged

17. The fuel used by ships and aircraft to bring food and drink to Britain ---- 4 million tonnes of CO₂ emissions.

- A) bangs out B) deals with
C) accounts for D) gets through
E) spends up

18. Ideally, the production of any given commodity will be ---- at the point of minimum costs.

- A) found out B) brought up
C) made over D) carried on
E) looked for

19. - 23. sorularda, aşağıdaki parçada numaralanmış yerlere uygun düşen sözcük ya da ifadeyi bulunuz.

Computers are now part of our everyday lives and there seems to be nothing out of the ordinary about them. However, the computers of the (19) - ---- are a different proposition. They are already beginning to sound (20) ---- science fiction. Supercomputers, many (21) ---- more powerful than today's fastest machines, could be contained in a tiny drop of liquid. (22) ---- would not be built of silicon, (23) ---- DNA, the stuff of life itself.

19.

- A) future B) current C) present
D) recent E) next

20.

- A) according to B) along with C) like
D) close by E) up to

21.

- A) conditions B) ways C) times
D) degrees E) tests

22.

- A) Theirs B) These
C) Any of them D) The latter
E) Which

23.

- A) but of B) rather than
C) instead of D) though
E) except

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

24. Even if it is not the job of scientists to make ethical decisions about their work, ----.

- A) they have always treated humans as if they were machines
B) the results of the work could be used in other entirely unhealthy ways
C) future drugs will be better targeted and more effective
D) I can see how far we have moved forward, and the direction we are taking
E) it is certainly their job to tell others where it is leading

25. ---- that the waste problems are much less severe than with conventional nuclear energy.

- A) All atoms have a central nucleus
- B) Fusion could provide a major contribution to the energy mix of the future
- C) Fusion research drains resources away from renewable energy
- D) Advocates of fusion power claim
- E) Nuclear fusion seems the perfect answer

26. Unless we step up our efforts to protect the environment, ----.

- A) there would probably have been no future at all to look forward to
- B) we cannot look forward to a healthy and prosperous future
- C) which is a vast and unexplored storehouse of biological treasures
- D) man is undoubtedly the planet's most successful predator
- E) we are under an obligation to do so as soon as possible

27. Though the strategic value of submarines was demonstrated in World War I, ----.

- A) a submarine cannot stay submerged indefinitely
- B) the success of the German submarines prompted America to enter the war
- C) it was only in World War II that they played a really key military role
- D) the first nuclear-powered submarine was named "USS Nautilus"
- E) conditions on a submarine even in peace time are enough to crush most people

28. ---- if tests in the Australian desert prove successful.

- A) A new species of marine reptile has been identified from a 70 million-year old fossil
- B) Japanese researchers have begun testing a scale model of a future supersonic passenger plane
- C) Salyut I, the world's first space station, was sent into orbit in 1970
- D) Scientists have identified the part of the brain that helps us remember events from sounds and smells
- E) A new supersonic aircraft could take to the skies

29. ---- before the technology has been shown to work in animals.

- A) Laws governing stem cell research remain uncertain throughout the world
- B) Australia is home to some of the world's top stem cell researchers
- C) In Britain, researchers could already harvest stem cells from surplus embryos created from IVF
- D) Some scientists believe it would be premature to study human embryonic stem cells
- E) Embryonic stem cell research didn't lead to cures for diseases like Parkinson's

30. ----, researchers hope to improve the quality and safety of meat and dairy produce.

- A) Once they have unravelled the genome of the cow
- B) Even though dogs and cows are next in line to have their genetic codes sequenced
- C) If European farmers had their livestock vaccinated to prevent any future outbreak of foot and mouth disease
- D) Since vaccination is ruled out as a prevention strategy for foot and mouth disease
- E) Unless the projects for genome research are supported by the government

31. A discarded rocket from the Apollo 12 Moon Mission had been orbiting the sun for many years, ----.

- A) while several large optical surveys continue to scan the skies for asteroids
- B) since any asteroid coming our way would either hit us or miss us completely
- C) so that the scientists at the Planet Centre may work out a plan to capture it
- D) before it changed course and started to orbit the Earth
- E) although it is the first man-made object known to have orbited the Sun

32. The sudden collapse of the concrete slab roof of a multi-storey car park led to fears ----.

- A) even if the event caused no serious injuries
- B) that the lives of thousands of people were at risk from a similar incident
- C) why concrete has constantly received a negative press
- D) though, with the introduction of reinforced concrete, problems of this nature have been overcome
- E) why a chunk of concrete wall fell in a rail tunnel recently in Japan

33. ---- extra dimensions will have to be accepted as fact, not conjecture.

- A) If future experiments confirm these predictions
- B) Once the theory had been conclusively proved correct
- C) Though certain aspects of the theory weren't fully developed
- D) As measurements of the strength of gravity will be taken at different locations
- E) Whether gravity appears to be so much weaker than electromagnetism

34. 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

35. ----, there is still a slight chance that a rogue black hole could come out of the depths of interstellar space and catch us unawares.

- A) If only an early warning system could be devised
- B) Because black holes would fling light at us in a pattern of concentric rings
- C) Whether a black hole is presently within the range of our telescopes
- D) The scientists working on black holes were concerned
- E) Although black holes are rare in our Galaxy

36. - 38. sorularda, verilen Türkçe cümlelerin anlamına en yakın İngilizce cümleyi bulunuz.

36. Bazı yerbilimciler, 65 milyon yıl önce büyük bir meteor çarpmasını izleyen nitrik asit yağmurunun, dinozorların yok olmasına yol açan bir faktör olduğunu ileri sürmüşlerdir.

- A) Some geologists have argued that a rain of nitric acid, following a massive meteor impact 65 million years ago, was one factor leading to the extinction of the dinosaurs.
- B) According to some geologists, a rain of nitric acid, caused by a massive meteor impact some 65 million years ago, was the major factor in the extinction of the dinosaurs.
- C) The extinction of the dinosaurs was almost certainly, in the opinion of geologists, caused by a massive meteor impact some 65 million years ago and the rain of nitric acid that followed it.
- D) A rain of nitric acid some 65 million years ago and the massive meteor impact that preceded it, are generally held by geologists to have caused the extinction of the dinosaurs.
- E) According to certain geologists, the extinction of the dinosaurs occurred about 65 million years ago when there was a massive meteor impact followed by a rain of nitric acid.

37. Bir fırtına, Kuzel İtalya üzerinden Adriyatik'e geçerken, bununla gelen alçak atmosfer basıncı, yerel deniz seviyesini yarım metre kadar yükseltir.

- A) The sea level is likely to rise by about half a metre when a storm crosses northern Italy and comes to the Adriatic, bringing a low atmospheric pressure.
- B) A storm passing over northern Italy and into the Adriatic brings with it a low atmospheric pressure that causes the sea level there to rise by at least half a metre.
- C) The sea level in the Adriatic can rise by nearly half a metre whenever a storm coming via northern Italy arrives bringing low atmosphere pressure.
- D) When a storm passes over northern Italy into the Adriatic, the low atmospheric pressure that comes with it raises the local sea level by up to half a metre.
- E) The low atmospheric pressure brought to the Adriatic by storms that have come across northern Italy can cause sea levels there to rise by up to half a metre.

38. Organik çiftçiler kimyasal gübre kullanmazlar; ancak, toprağın verimliliğini ürün artıklarını ve doğal gübreyi toprağa karıştırarak artırır.

- A) Though organic farmers use no chemical fertilisers, they successfully create a fertile soil by working into it crop residues and manure.
B) Organic farmers don't use chemical fertilisers; however, they build up soil fertility by working into it crop residues and manure.
C) Organic farmers manage to build up soil fertility very successfully by working in crop residues and manure, but no chemical fertilisers.
D) Because organic farmers avoid chemical fertilisers, they use crop residues and manure to build up high levels of fertility in the soil.
E) Even though organic farmers don't use chemical fertilisers, they build up soil fertility by working crop residues and manure into the soil.

39. - 41. sorularda, verilen İngilizce cümlelerin anlamına en yakın Türkçe cümleyi bulunuz.

39. We know that, unless we take action right away, certain marine species will start to become extinct due to the alarming decline of biodiversity.

- A) Biyolojik çeşitliliğin korkunç bir şekilde azalması sonucu bazı deniz canlılarının yok olacağını ve hemen harekete geçmemiz gerektiğini biliyoruz.
B) Hemen eyleme geçmediğimiz takdirde, biyolojik çeşitliliğin azalması sonucu, bazı deniz canlılarının yok olmaya başlamasının endişe verici olduğunu biliyoruz.
C) Bildiğimiz kadarıyla, derhal harekete geçmezsek, bazı deniz canlıları yok olmaya başlayacak, çünkü biyolojik çeşitlilik endişe verici bir hızla azalıyor.
D) Biliyoruz ki hemen eyleme geçmezsek, bazı deniz canlıları, biyolojik çeşitliliğin endişe verici azalması nedeniyle yok olmaya başlayacak.
E) Biliyoruz ki hızla eyleme geçmediğimiz takdirde, biyolojik çeşitliliğin azalması sonucu bazı deniz canlılarının yok olması endişe vericidir.

40. Some ecologists believe that species diversity will not be reduced significantly as the natural environment becomes permanently impoverished.

- A) Doğal çevre tamamen fakirleşmiş olduğu için, bazı çevrebilimciler, tür çeşitliliğinin hiçbir zaman düzelmeyeceğine inanmaktadırlar.
B) Tür çeşitliliğinin hiçbir zaman artmayacağına inanan bazı çevrebilimciler, doğal çevrenin tamamen fakirleştiğini ileri sürmektedirler.
C) Bazı çevrebilimciler, doğal çevre kalıcı olarak fakirleşirken, tür çeşitliliğinin önemli ölçüde azalmayacağına inanmaktadırlar.
D) Bazı çevrebilimcilerinin inandığı gibi, tür çeşitliliği hiçbir zaman eski durumuna gelemez, çünkü doğal çevre sürekli bir şekilde yıkıma uğramaktadır.
E) Doğal çevrenin tamamen fakirleştiğini ileri süren bazı çevrebilimciler, tür çeşitliliğinin hiçbir zaman artmayacağına inanmaktadırlar.

41. Agricultural researchers in developed countries are working to develop strains of rice that produce high yields with less water.

- A) Gelişmiş ülkelerdeki zirai araştırmacılar, çeşitli pirinç türleri geliştirerek, az su ile yüksek verim elde etmeye çalışmaktadır.
B) Zirai araştırmacılar, gelişmiş ülkelerde, az su ile yüksek verim elde edebilmek amacıyla, çeşitli pirinç türleri üzerinde çalışmaktadır.
C) Gelişmiş ülkelerin zirai araştırmacıları, az suya rağmen çok verim sağlayan pirinç türlerini geliştirmeye çalışmaktadır.
D) Gelişmiş ülkelerdeki zirai araştırmacılar, az su kullanarak çok verim elde edebilmek için, değişik pirinç türlerine ilişkin çalışmalar yapmaktadır.
E) Gelişmiş ülkelerdeki zirai araştırmacılar, az su ile yüksek verim sağlayan pirinç türleri geliştirmek için çalışmaktadır.

42. -46. sorularda, cümleler sırasıyla okunduğunda, anlam bütünlüğünü bozan cümleyi bulunuz.

42. (I) A committee of prominent physicists, chemists and others was appointed to investigate the properties of TEL (tetraethyl lead). **(II)** The committee presently reported mild health effects from the use of lead but nothing drastic enough to justify a ban. **(III)** Increased ventilation and other plant improvements reduced the workplace hazard to an acceptable level. **(IV)** In their opinion, TEL was dangerous only in concentrated form, not when diluted in gasoline. **(V)** If reasonable precautions were taken and mixing was performed at distribution centres instead of at the point of purchase, there would be no cause for concern.

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

43. (I) Of all the legacies of the ancient seas the most valuable is petroleum. **(II)** No one knows exactly what geologic processes have created these precious pools of liquid deep within the earth. **(III)** But one thing seems certain. **(IV)** On the other hand, few geologists believe that petroleum formation is linked with volcanic action. **(V)** Petroleum is a result of fundamental earth processes that have been operating at least since the beginning of Palaeozoic time.

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

44. (I) Geologists are presently seeking ways of detecting earthquakes before they strike. **(II)** If they are successful, then people may be evacuated from a danger area before the earthquake happens. **(III)** Geologists are also carrying out experiments in earthquake control. **(IV)** It is calculated that there are as many as 500,000 earthquakes in a single year. **(V)** If these experiments are successful, it may be possible, in the future, to minimize the destructive force of earthquakes.

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

45. (I) The origin of the asteroids is uncertain. **(II)** An asteroid would then remain in the same relative position, provided the initial velocity were suitably chosen. **(III)** It has been supposed that they are fragments of a former planet which has broken up. **(IV)** An alternative view is that they represent material, which did not coalesce to form a single body at the time the other planets were formed. **(V)** If so, this was possibly the result of the disturbing action of Jupiter.

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

46. (I) One main challenge in the production of ready-mixed paints was the achievement of complete dispersion of the pigment in the vehicle. **(II)** All the early patent paints had a poor reputation because they were thin and lacked opacity. **(III)** The widespread use of lime and calcium carbonate instead of the more expensive white lead produced paint that streaked. **(IV)** Some manufacturers diluted their paints with too much water. **(V)** Others added crushed pebbles to make the cans heavier.

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

47. - 51. sorularda, karşılıklı konuşmanın boş bırakılan kısmında söylenmiş olabilecek sözü bulunuz.

47. Mel :

- Funny how one always focuses on the nearest and most immediate danger and not on the more remote and longer lasting one!

Frank :

- ----

Mel :

- Volcanoes. Did you know that among other things, the ash from them contaminates water, destroys crops and clogs the engines of aircraft?

Frank :

- No I didn't; but I can believe it.

A) I think you're exaggerating the situation.

B) Why do you say that?

C) Today we face all sorts of dangers, don't we?

D) I suppose the remote one is so easy to recognise.

E) What have you been reading about?

48. Reg :

- **Why are people so excited about the discovery of vast quantities of ice on Mars?**

Jim :

- ----

Reg :

- **Then it is a lucky find. Is there a large quantity of it?**

Jim :

- **Enough to fill Lake Michigan twice over if it were melted!**

- A) Because one of the problems of a manned expedition to Mars has always been the carrying of enough water to support the crew.
B) Because most of the ice is situated around the south pole though there may also be some in the north.
C) Because, as spring approaches, the glaciers are slowly receding.
D) That's why the Mars Express mission will use radar to search down several kilometres.
E) The crucial question, of course, is still "What are the implications for life?" and until we send a manned expedition there we can't know for certain.

49. Andy :

- **I hear they are trying to improve the design of stadiums for the World Cup.**

Mike :

- ----

Andy :

- **What use will they be?**

Mike :

- **They'll enable sufficient sunlight to get through to enable the grass to grow.**

- A) The main problem is keeping the playing surface in perfect condition.
B) Yes; and at huge expense, too, I believe.
C) I'm not sure that all these technical innovations really are necessary.
D) That's right; they are experimenting with semitransparent fabric roofs over the side stands.
E) In Sapporo they came up with something quite exotic, with two arenas.

50. Peter :

- **We had double-glazing installed throughout the house last year and are immensely pleased with it.**

Colin :

- ----

Peter :

- **As far as I'm concerned, the main one is a reduction in fuel costs due to efficient insulation.**

Colin :

- **Yes, that is important. Presumably, it also cuts down on noise.**

- A) That must have cost you quite a lot!
B) Is it really worthwhile?
C) Just what are the benefits?
D) My wife's keen on it, but I'm not so sure.
E) Does it really achieve all they promise?

51. Interviewer :

- **What advice do you have for people wishing to go on a space trip?**

Space tourist :

- ----

Interviewer :

- **Why do you say that?**

Space tourist :

- **Well, I had to train for seven months, but the training period will gradually be reduced, and so will the costs.**

- A) Ask me that when I get back.
B) I'd say wait a while. It's going to get far more accessible quite soon.
C) Make sure that you really want to! There's more hard work involved and less fun than most people imagine.
D) Make sure you are physically very fit indeed!
E) Well, I wished to; I worked hard at it, and now I'm going!

52. - 56. sorularda, parçada boş bırakılan yere uygun düşün ifadeyi bulunuz.

52. The world's ten most important coral reef hotspots have been identified. The sites, which are all over the world, have one thing in common: ----. The findings contradict a long-held contention that marine species are unlikely to become extinct because of their vast geographic ranges in the oceans.

- A) they are all rich in marine species found only in small areas and therefore highly vulnerable to extinction
- B) habitat destruction leads to loss of biodiversity
- C) most of the world's coral reefs are under threat from human activities, in particular from pollution
- D) the advantages of an integrated land and sea conservation strategy are suggested by at least eight of them
- E) the ten hotspots account for a tiny 0,017 per cent of the oceans, but 34 per cent of restricted range coral reef species

53. The training for tourists travelling into space is tough; the journey itself is even tougher. ----. Moreover, the G-forces push their organs and blood to the back of their body. Eight minutes later they should be 805 km above Earth, travelling at speeds of more than 40,234 km/h.

- A) Besides the vigorous training programme, there are stringent medical and fitness tests
- B) The view and the experience, however, more than compensate for any unpleasantness
- C) After ignition the force of acceleration drags on the tourists with the weight of eight men
- D) Would-be travellers to space have also to complete a 22-month training programme
- E) The G-force exercises are perhaps the most demanding part of the training

54. One important aim of this "Scientific Opportunities" organisation is to create a more welcoming environment for creative, inventive thinkers. ----; but they are tools that aren't used nearly enough. Too many young people become bored with science and maths education, and they learn far too little about what the great inventors have done to create the world we live in.

- A) Other skills are naturally required if the job is to be done properly
- B) No cause is more important than cultivating the potential of the human mind
- C) Every trade has its own tools and special equipment

- D) Invention and creativity are humanity's most powerful tools for making the world a better place
- E) This is its long-standing mission and to achieve it every available tool is being used

55. There is very little similarity between the chemical composition of river water and that of sea water. The various elements are present in entirely different proportions. ----. An important reason for the difference is that immense amounts of calcium salts are constantly being withdrawn from sea water by marine animals for the making of shells and skeletons.

- A) The ocean is the earth's greatest storehouse of minerals
- B) The rivers bring in four times as much calcium as chloride, for example; yet in the ocean the proportions are reversed; there is 46 times as much chloride as calcium
- C) Although the earth is constantly shifting her component materials from place to place, the heaviest movements are always from land to sea, not from sea to land
- D) The annual flow of water seaward is believed to be about 5,500 cubic miles, and this inflow of river water gives the ocean several billion tonnes of salts
- E) In a single cubic mile of sea water there are, on the average, 166 million tons of dissolved salts

56. Acid rain not only kills fish, it also erodes buildings. Airborne urban pollution, including SO₂, nitric acid and carbon particles (soot) is deposited on the wet surfaces of stonework to form unsightly black crusts. ----. Porous stones and sandstone are especially vulnerable.

- A) To make matters worse, the features of many of these statues have also been eroded away
- B) Air pollution was much worse in Western cities 30 years ago than it is today
- C) The crust is essentially soot, mixed with gypsum - the soft mineral calcium sulphate which forms when stone reacts with sulphuric acid
- D) Another problem that used to be associated with acid rain was lead poisoning, but plastic pipe work has more or less eliminated this risk
- E) Rural sources of acidity from industrial sites have similarly been increasing at an alarming rate

57. - 59. soruları, aşağıdaki parçaya göre cevaplayınız.

William Willcocks was born 150 years ago in a tent beside a canal in northern India, where his father worked for the colonial government. He learnt his engineering in India before heading for Egypt in 1883. There he rose to become director-general of reservoirs, and a legend on the banks of the Nile. He built the first Aswan dam, then the largest in the world, went on to revive the ancient irrigation systems of Mesopotamia, and watered deserts from south Africa to India. But he was deeply troubled by the discovery that much of what his fellow water engineers did in their colonial playgrounds was worse than useless.

57. We gather from the passage that William Willcocks ----.

- A) travelled all over India in search of fresh water resources
- B) devoted his engineering skills to the improvement of agriculture in India alone
- C) was inspired by his father in choosing engineering as a profession
- D) came from a wealthy and influential English family in India
- E) was an extremely talented irrigation specialist of the late 19th century

58. It is clear from the passage that William Willcocks was upset ----.

- A) to find out that the ancient irrigation systems of Mesopotamia were inadequate
- B) because the first Aswan dam was needlessly large and costly
- C) when he realised the work of his fellow water engineers in the colonies was utterly ineffective
- D) to discover that the water resources of south Africa were not sufficient to irrigate the desert
- E) because the whole responsibility for the construction of the Aswan dam was on his shoulders

59. As it is stated in the passage, Willcocks's work in Egypt ----.

- A) brought about a rapid change in the economic life of the country
- B) earned him fame, power and prestige
- C) was of secondary importance compared with what he was to do in India
- D) was confined to the construction of the Aswan dam
- E) has always been underestimated

60. - 62. soruları, aşağıdaki parçaya göre cevaplayınız.

The acronym 'radar', for radio detection and ranging, has been credited to the US Navy, which used it officially towards the end of 1940, but the concept of radar is somewhat older. Hertz showed that metals would reflect electromagnetic waves and Tesla is said to have suggested using this phenomenon in a radar-like manner in 1899. A few years later a German, Christian Hulsmeyer, received patents for a ship's anticollision device. Also many radio engineers and experimenters observed that passing aircraft or ships interfered with their experiments. Although these features are all suggestive of radar, none was actually radar unless the term is very loosely defined. In the 1930s, however, several of the major powers became aware of the military possibilities of radar and work on it started immediately in the USA, Britain, France, Germany, Italy, Japan and the Soviet Union. By the end of World War II, military radar, and military radio navigation aids too, were well developed.

60. We understand from the passage that the work on radar ----.

- A) was begun by Hertz and completed by Hulsmeyer
- B) only began upon the outbreak of World War II
- C) received almost no scientific attention until the end of 1940
- D) was originally undertaken by the US Navy
- E) developed very fast during World War II

61. According to the passage, one fact that opened the way to the development of radar was ----.

- A) the use of electromagnetic waves by the US Navy
- B) the pressing need for the prevention of collisions on land and sea
- C) the interference in radio experiments when ships or aircraft passed by
- D) the growing hostilities between East and West
- E) America's entry into World War II

62. It is clear from the passage that many of the world's leading countries ----.

- A) were keen to develop radar because of its military advantages
- B) had been involved in the development of radar from 1899 onwards
- C) were worried about the sharp increase in collisions at sea
- D) decided to pool their resources so as to develop radar at a faster rate
- E) were investing large sums of money to improve the navigational techniques of their military aircraft

63. - 65. soruları, aşağıdaki parçaya göre cevaplayınız.

Aviation is about to go back to its roots. Nearly 100 years after the Wright brothers' first heavier-than-air powered flight, the US Air Force is testing an experimental plane that uses "wing warping", which is the steering and control technique that kept Orville Wright aloft in 1903. But this time round, it will be at supersonic speeds. Unlike conventional aircraft wings, which use movable surfaces like flaps on the wings and the tail, wing warping bends the entire wing. The USAF call it "active aeroelastic wing" technology, and is investing \$41 million in the project in the hope that it will lead to lighter, more manoeuvrable supersonic planes.

63. We understand from the passage that the reason why the USAF is giving so much importance to the "wing warping" technique is ----.

- A) because they believe it may help them to produce supersonic planes that are easier to control and less heavy
- B) because it will improve the performance of conventional aircraft by increasing their weight
- C) because it will help them to cut down on production costs of supersonic aircraft
- D) to enable combat aircraft to develop a more effective defence system
- E) to ensure that the wings can withstand supersonic speeds over long periods of time

64. As it is clear from the passage, the "wing warping" technique that is presently being tested ----.

- A) is a brand new technique especially developed for supersonic aviation
- B) in fact dates back to the early history of aviation
- C) is being sharply contested by the USAF
- D) is unlikely to prove effective in supersonic aircraft
- E) will probably have no noticeable effect on an aircraft's performance

65. The phrase "kept Orville Wright aloft" in lines 5-6 means ----.

- A) gave Orville Wright an easy control
- B) helped Orville Wright to fly faster
- C) lifted Orville Wright into the air
- D) enabled Orville Wright to stay in the air
- E) made Orville Wright fly more safely

66. - 68. soruları, aşağıdaki parçaya göre cevaplayınız.

Like so many American waterways, the Chesapeake Bay, an enormous, semi-saline body of water that is treasured for its aquatic life, became badly polluted during the 20th century. But it has regained much of its biological vitality since the early 1970s, thanks to concerted ecological stewardship. In this effort, the Conowingo dam has provided valuable assistance. Environmentalists are not often fond of dams, which have a habit of trapping migratory fish and disrupting sensitive water ecosystems - not to mention looking ugly. But the Conowingo dam on the Susquehanna river in eastern Maryland is an exception. Since its construction in 1928, the Conowingo dam has not only generated electricity but also trapped vast amounts of sediment behind its imposing walls. This was not a function the builders had planned for, but in recent years its value has become clear. The water flowing past the Conowingo dam is much cleaner than it would otherwise be. Even America's once-endangered national symbol, the bald eagle, can be seen perching near the dam, waiting to swoop down and seize a meal of fish by its talons.

66. As it is pointed out in the passage, dams are not usually popular among environmentalists ----.

- A) but the Conowingo dam has their approval
- B) unless they disrupt sensitive water ecosystems
- C) and especially all those on the Susquehanna river
- D) but the Conowingo dam, because of its imposing appearance, is generally admired
- E) although they acknowledge that most are environmentally friendly

67. According to the passage, the Conowingo dam holds back large quantities of sediment ----.

- A) so the water going into the bay is lacking in nutrients
- B) which means that the water flowing into the Chesapeake Bay is almost salt free
- C) and has to be constantly cleaned
- D) though this was not thought of when the dam was designed
- E) as well as a great many migratory fish

68. We learn from the passage that one gratifying sign that the Chesapeake Bay is no longer seriously polluted is the fact that ---- .

- A) the bald eagle is now no longer an endangered species
- B) America has made the bald eagle her natural symbol
- C) the bald eagle that feeds on fish has returned to the region
- D) its biological variety has remained unchanged
- E) the water is so clear one can see the aquatic life there

69. - 71. soruları, aşağıdaki parçaya göre cevaplayınız.

More than half of astronauts suffer from space sickness, also known as Space Adaptation Syndrome. Symptoms include headaches, nausea, vomiting and poor concentration. The main cause of space sickness is disorientation caused by exposure to zero gravity conditions. The human body is used to a much stronger gravitational field on Earth and organs in the inner ear, along with canals that sense motion, tell the brain about the location of the limbs relative to the ground. In other words, they're responsible for balance. Unfortunately, the signals from these organs in the inner ear go wrong in zero gravity, leading to space sickness. Over time though, the brain learns to ignore them and relies instead on visual clues, such as the position of the feet, to determine balance. Astronauts quickly readapt to Earth's gravity within a few days and there are probably no long-term effects from this strange affliction.

69. As we understand from the passage, the "Space Adaptation Syndrome" ----.

- A) brings about serious damage to the inner organs of the astronauts
- B) persists for a very long time after the astronauts return to earth
- C) means the physical disorientation experienced by a majority of astronauts in space
- D) is in no way related to zero gravity
- E) has only been observed in recent space missions

70. One interesting point made in the passage is that ----.

- A) astronauts get used to zero gravity before setting off on a space mission
- B) the structure of the inner ear is more complicated than that of other organs
- C) the earth's gravitational field has, in the long run, an adverse effect upon the human body
- D) astronauts learn to maintain their balance in space by ignoring visual signals
- E) the human brain can, after a certain length of time, learn to adapt to zero gravity

71. We learn from the passage that within the Earth's gravitational field ----.

- A) the space adaptation syndrome of astronauts immediately disappears
- B) we maintain our balance through the organs of the inner ear
- C) the symptoms of space sickness continue to increase noticeably
- D) symptoms similar to those of space sickness are quite unknown
- E) astronauts who have experienced zero gravity never again feel quite comfortable

72. - 74. soruları, aşağıdaki parçaya göre cevaplayınız.

Why do transformers hum? This is one of those questions which seems easy but has surprising hidden depths. The simple explanation is that electric currents create magnetic fields, and the alternating current of mains electricity used by transformers creates a magnetic field that changes at 50 cycles a second. This in turn triggers a regular motion of the metal molecules inside the transformer, known as magnetostriction. It's this motion that makes the surrounding air vibrate, creating the hum. But why does the metal respond in this way? The answer lies in a property of the electrons in the metal known as 'spin' - a property which can only be explained by reference to Einstein's theory of relativity, which is beyond the understanding of most of us.

72. It is pointed out in the passage that the sound produced by a transformer ----.

- A) is actually the vibration of the air caused by the movement of the metal molecules within the transformer
- B) is only noticeable when it occurs in an enclosed space
- C) varies according to the type of magnetic field created
- D) can easily be eliminated
- E) varies according to the size of the magnetic field in which it occurs

73. We understand from the passage that the question "Why do transformers hum?" ---- .

- A) has never been adequately answered
- B) appears straightforward but the answer is extremely complicated
- C) has been under discussion from the time transformers were first made
- D) has raised doubts concerning the safety of mains electricity
- E) has opened the way to the manufacture of quieter transformers

74. In the passage, the question "Why does the metal respond in this way?" ----.

- A) bears no relationship with the phenomenon known as "magnetostriction"
- B) refers to the creation of magnetic fields by mains electricity
- C) can be fully answered without reference to the theory of relativity
- D) can be answered far more easily than can the opening question
- E) is not answered in a clear and detailed manner

75. - 77. soruları, aşağıdaki parçaya göre cevaplayınız.

Time travel has been a favourite science fiction theme ever since it was first used in H.G. Wells's trailblazing novel "The Time Machine". But not everything it describes is science fiction: traveling forward in time, for example, is a proven fact. Einstein's theory of relativity predicts that an observer moving relative to Earth can leap into Earth's future, and the effect has been confirmed using atomic clocks. Dramatic time warps require speeds close to that of light, which is possible in principle but would take a major feat of engineering, not to mention a lot of money. Going back in time is far more problematic. Relativity does not rule out an observer being able to make a journey through space-time and return to the past. But all scenarios so far discussed require exotic circumstances.

75. According to the passage, going back in time ----.

- A) may not be impossible but presents a great many difficulties
- B) has been feasible ever since Einstein formulated the theory of relativity
- C) is completely contradicted by the theory of relativity
- D) requires speeds that are greater than the speed of light
- E) was an idea originally put forward by Einstein

76. It is pointed out in the passage that "The Time Machine" by H.G. Wells ----.

- A) was to a large extent inspired by Einstein's theory of relativity
- B) was the first novel to deal with the idea of time travel
- C) is the only early work of science fiction that still remains popular
- D) is still regarded as a standard reference for time travel studies
- E) focuses on travel into the past rather than into the future

77. The passage makes the point that it is possible to travel into Earth's future ----.

- A) and indeed this has already been achieved
- B) though this has not been verified by atomic clocks
- C) if Einstein's theory of relativity is found to be true
- D) at reasonably attainable speeds
- E) but technically and financially it is still not possible

78. - 80. soruları, aşağıdaki parçaya göre cevaplayınız.

In a biography of Bardeen, recently published, he does not fit the popular stereotype of scientific genius, for he is surprisingly sane and ordinary. As far as character goes, he had several assets. To start with he was a notable team builder. Tenacious when it came to attacking problems, he had the gift of breaking a large problem down into smaller, more soluble parts and then reassembling the whole. As a teacher, his habit of stopping to think allowed his students to do so too. Government and industry valued his advice - according to one commentator, he helped Xerox to build one of the finest industrial laboratories in the world in the fields of organic and disordered solids during the late 1970s. But, perhaps, the most telling aspect of Bardeen's character was his willingness to share the credit with others. For example, he deliberately stayed away from the meeting of the American Physical Society in March 1957, at which his theory of superconductivity was first presented, so that the contribution of his young co-researchers would be recognised.

78. It is emphasised in the passage that Bardeen's ideas ----.

- A) almost invariably centred on the study of organic solids
- B) frequently had a practical application
- C) received very little recognition in his own lifetime
- D) had no direct bearing on industrial practices
- E) were in the opinion of other scientists rather stereotyped

79. As we understand from the passage, Bardeen ----.

- A) showed very little interest in his students and their work
- B) was generally regarded as having several shortcomings
- C) really disliked attending scientific conferences and giving papers
- D) was by nature a modest person who preferred to keep a low profile
- E) achieved nothing of any scientific importance prior to the 1970s

80. It is clear from the passage that, unlike many really great scientists, Bardeen had the gift of ----.

- A) getting the utmost benefit out of his coresearchers work
- B) persuading governments to support his research projects
- C) choosing the right problems to work on, that is, the ones that could be solved
- D) writing biographical works as well as scientific ones
- E) working effectively with other people and sharing his ideas with them

**TEST BİTTİ !
CEVAPLARINIZI KONTROL EDİNİZ.**

CEVAP ANAHTARI

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