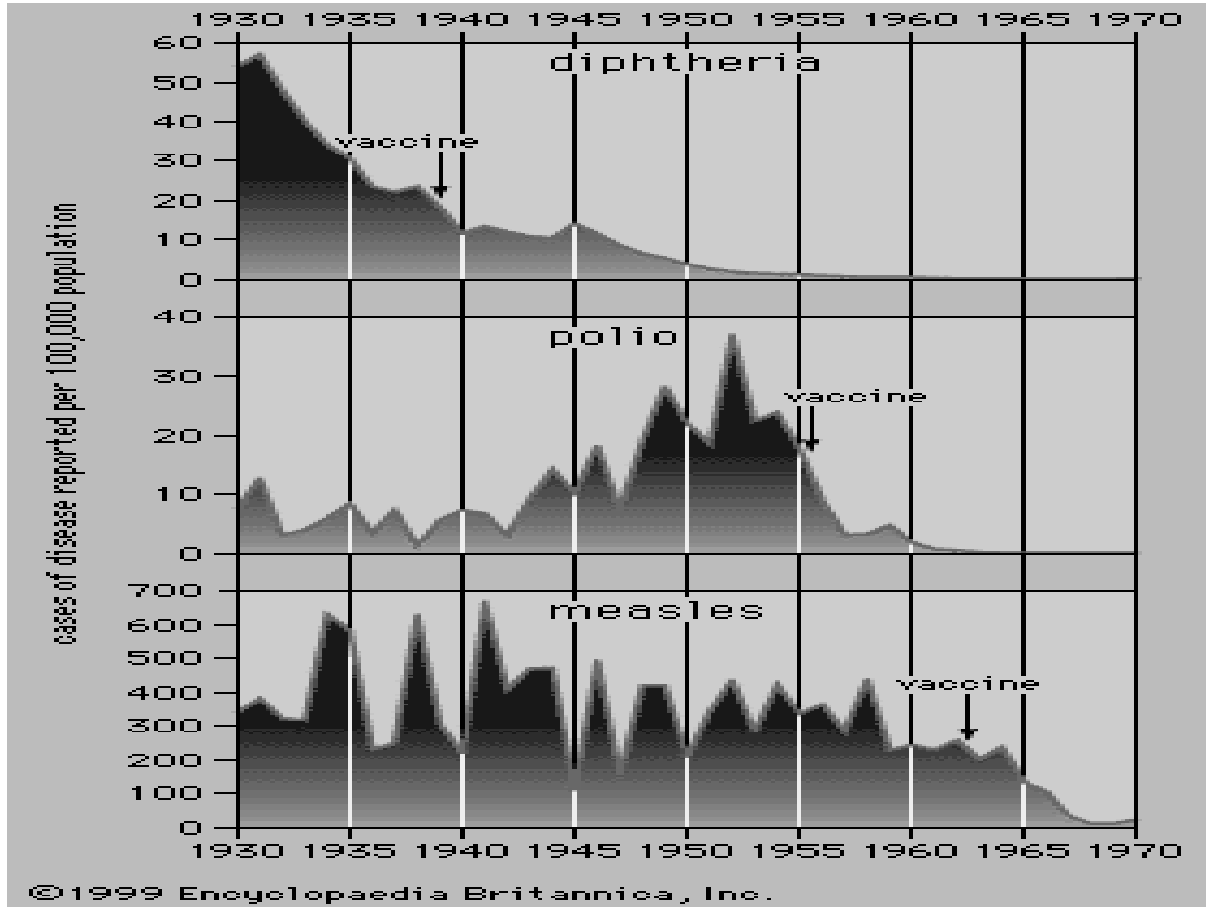


SULIT

Question 1 – 25 are based on the given stimuli. Study the information carefully and choose the best answer.

When lightning comes to Earth, it tends to strike the highest point around and to travel to Earth along the line of least resistance. Tall, isolated trees and buildings are particularly vulnerable and people can be targets too. If your skin tingles and you feel your hair stand on end during a thunderstorm, it means that a lightning strike may be imminent. If you are in an open area, drop to the ground at once and lie flat. This lessens the risk that you may be struck.

- 1 Why must one drop to the ground in an open area during a thunderstorm?
- A Because thunderstorm is proven dangerous.
 - B Because tall trees are not there to offer protection.
 - C Because one cannot avoid being struck by lightning.
 - D Because lightning tends to strike the highest point around.



- 2 What can we conclude from the graphs above?
- A Cases of diseases increase after the vaccines were introduced.
 - B Cases of diseases decreases after the vaccines were introduced.
 - C All the diseases were eradicated after the vaccines were introduced.
 - D All the diseases were eradicated simultaneously after vaccination.

635

In telecommunication, the use of artificial satellites to provide communications links between various points on Earth. The technique involves transmitting signals from an Earth station to a satellite. Equipment onboard the satellite receives the signals, amplifies them, and retransmits them to a region of Earth. Receiving stations within this region pick up the signals, thus completing the link.

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3 Which of the following sequence is true?

- A Signals transmitted – signals received – signals amplified – signals retransmitted – signals picked up.
- B Signals transmitted – signals amplified – signals received – signals retransmitted – signals picked up.
- C Signals transmitted – signals amplified – signals retransmitted – signals received – signals picked up.
- D Signals transmitted – signals received – signals retransmitted – signals amplified – signals picked up.

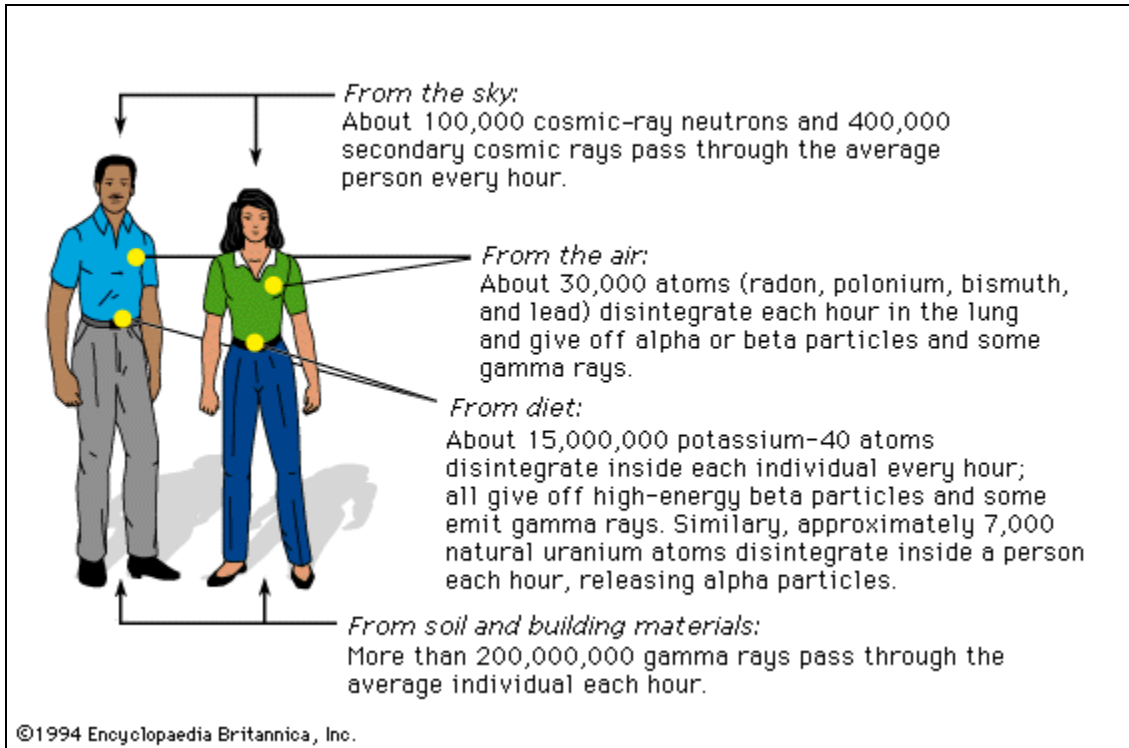


Figure 3: Major sources of natural background radiation and their respective contributions to the exposure of the average person.

- 4 What does the word disintegrate mean?
- A break up
 - B break out
 - C break in
 - D break off
- 5 What can we conclude about natural background radiation?
- A It does not harm our body.
 - B It enters our body unnoticed.
 - C It does not react in our body.
 - D It enters our body irregularly.

A hardware device or programme functions as information filters which coming through the Internet connection into the computer system is a firewall. Analogically, its job is similar to a physical firewall that keeps a fire from spreading from one area to the next. If an incoming packet of information is flagged by the filters, it is not allowed through.

6 What is the function of a firewall in a computer system?

- A It prevents a blaze from spreading.
- B It destroys the internet connection.
- C It filters information.
- D It destroys unwanted information.

Chemical bond is the physical phenomenon of chemical substances being held together by attraction of atoms to each other through sharing, as well as exchanging, of electrons -or electrostatic forces. In general, strong chemical bonds are found in molecules, crystals or in solid metal and they organize the atoms in ordered structures. Weak chemical bonds are classically explained to be effects of polarity, or the lack of it, of strong bonds.

7 Which of the following statements is TRUE?

- A Weak chemical bonds cause bad effects on polarity.
- B Chemical bonds are strong when atoms are orderly structured.
- C Chemical bonds are results of processes in solid metal and crystals.
- D Chemical bonds happen when chemical substances reduce atoms to become electrons.

Mars is called the red planet due to the colour of its deserts. It is half the size of Earth and has a thin atmosphere of carbon dioxide in which clouds form. There have been no definite signs of life on Mars perhaps due to its cold temperatures.

8 It is difficult to inhabit Mars because

- A it is not as big as Earth.

SULIT

- B** it has a very low temperature.
- C** it is full of carbon dioxide.
- D** it is red and made up of deserts.

Food preservation

All methods of food preservation are based upon one or more of the following principles: (1) prevention of contamination and removal of microorganisms, (2) inhibition of microbial growth and metabolism, and (3) killing of microorganisms. Prevention—or, more accurately, minimization—of contamination is achieved by the sanitary handling of raw food products, inhibition of growth by low temperatures (refrigeration or freezing), dehydration by evaporation or by high concentrations of salt or sugar, and killing of microbes by the application of high temperatures and, in some instances, radiation.

- 9 Which of the following is involved in the process of inhibition?
- A** Sanitary handling of raw products.
 - B** The application of high temperatures.
 - C** Dehydration by evaporation.
 - D** The application of high radiation.

Experts from a leading computer magazine stated that hardware problems such as defective hard drives or complete system meltdown, cause 10 times more data loss than virus attacks on PCs. Data lost from such hardware glitches is often not able to retrieve as compared to data damaged by computer viruses. Even seemingly minor problems, such as dust balls that build up inside a computer or extreme temperatures causing water condensation can lead to serious hardware failure. Experts suggest individuals to invest in both backup and recovery software.

- 10 Why are extreme temperature detrimental to the system ?
- A** It triggers virus attacks on PCs.
 - B** It builds up dust balls inside the computer.
 - C** It damages the recovery software of the backup system.

- D** It causes water condensation which leads to hardware failure.

If the force of the wind threatens to tip your dinghy over – in any sailing situation, let go of the sheets (the ropes from the sails) so that the sails flap freely. Simultaneously, if you are sitting on the *windward* side of the boat, steer into the wind and move quickly into the centre of the boat to balance it. This will end the sideways pressure on the boat and allow it to come upright again.

11 What is *windward*?

- A** A screen that provides protection from the wind.
B The side of something to which the wind is blowing.
C The side of something from which the wind is blowing.
D A blade with rubber edge that moves across a screen to make it clear of rain.

Neptune is the eighth and outermost planet in our solar system. It is the fourth-largest planet by diameter and the third-largest by mass. Neptune is 17 times the mass of Earth and is slightly more massive than its near twin Uranus which is 14 Earth masses, but slightly smaller due to its higher density.

12 Which of the following statements is true?

- A** Uranus is 17 times the mass of Earth.
B Neptune is smaller in size compared to Uranus.
C Neptune is fourth and outermost planet in our solar system.
D Uranus is smaller than Neptune because it has a higher density.

Fibroids or uterine fibroids as they are also known, are growths in the uterus. They are benign, which means they are not cancerous, and are made of muscle and other tissues. Fibroid can be as small as a pea and can grow as large as a melon. They usually do not change in size after menopause. The average age range is from 35 to 50 with peak incidences in the 40's. Fibroids almost never develop into cancer. The cause of fibroids is unknown.

13 What are fibroids?

- A** cancer of the uterus

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- B growing of the uterus
- C found in the muscle and tissues
- D usually stops growing after menopause

14 Which of the statements below is **false** ?

- A Fibroids may lead to cancer.
- B Fibroids are formed from muscle and tissue.
- C The growth in uterus is known as uterine fibroids.
- D Those aged 30 have lesser risk of developing fibroids.

When you drop the ice cube into a liquid, it begins to melt because the temperature of the liquid is higher than that of the ice cube. The ice cube becomes liquid water. These changes are chemical in nature and not physical.

15 The above experiment reflects a

- A Physical change.
- B Chemical change.
- C Biological change.
- D Natural change.

Quasars (Quasi Stellar Objects) give off huge amounts of energy. They can be trillions times brighter than the sun. Astronomers think that quasars are located in galaxies which have black holes at the centres. The black holes may provide quasars with their energy. Quasars are so bright that they draw out the light from other stars in the same galaxy. Quasars also give off radio waves, gamma rays, x rays and ultraviolet rays. Most of them are larger than our solar system.

16 The following are the properties of quasars *except*

- A They are very huge in size.

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- B** They are very bright in contrast to the sun.
- C** They are able to emit radio waves.
- D** They have black holes in the centre.

Deoxyribonucleic or DNA is the main substance in living things that governs heredity. Different living things have different kinds of DNA which they get from their parents. Your kind of DNA causes your body to possess many of your parents' features , giving you pointed nose or black eyes.

17 What is DNA?

- A** It influences the behaviour of a person.
- B** It establishes the link with one's parents.
- C** It determines the longevity of one's life.
- D** It distributes the person's features to the parents.

The hot springs are among the places where unicellular organisms are found and which scientists called them as *archaebacteria*. Biologists would immerse microscopic slide in the boiling pool in order to capture some of these organisms for study.

18 What is *archaebacteria* ?

- A** They consist of many cells.
- B** They are heat – sensitive organisms.
- C** They can be found only in hot springs.

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- D** They can withstand high temperatures.

In both smallpox and chicken pox the virus enters by the respiratory route, multiplies in the internal organs and, at the height of the infection, causes a rash on the skin. The rashes are similar at first glance. In each, the first thing seen is macule, which changes into vesicle. When the contents of the blister become turbid, the blister is then called a pustule. The pustule dries up and forms a scab that leaves a scar. However, in chicken pox, the rash is heaviest on the trunk, displaying a centripetal distribution. In smallpox, the rash is heaviest on the face, displaying a centrifugal distribution. In chicken pox, the progression from macule to pock is so rapid; within a few hours the macules have changed to vesicles and in 24 hours, the first scabs have appeared. In smallpox, a macule takes three days to change to a vesicle, and it is eight days before the first scab is formed.

19 Which of the following sequence shows the development of smallpox and chicken pox?

- A** macule – vesicle – pustule – scab – scar
B macule – pustule – vesicle- scab – scar
C macule – scab – vesicle – pustule – scar
D macule – pustule – scab – vesicle – scar

20 Which of the following statements is true?

- A** Both smallpox and chicken pox display centrifugal distribution.
B Both smallpox and chicken pox take the same time to develop.
C Both smallpox and chicken pox are caused by virus.
D Both smallpox and chicken pox are similar to each other.

Robotic and image processing systems are used in order to interactively assist medical teams, both in planning the surgical intervention, and in its execution. The aim of this new technique is to enhance the quality of surgical procedures by minimizing their side effects (smaller incisions, lesser trauma, more precision). This increases the patient's benefit and decreases the cost of surgery.

21 The quality of surgical procedures has improved due to

- A decreases in cost of surgery
- B robotic and image processing systems
- C planning and execution during surgery
- D surgical intervention by medical teams

22 How the new technique mentioned can helps the patient?

- A It triggers side effects in patient.
- B It reduces the risks faced by the patient.
- C It provides minimal benefits to the patient.
- D It interactively assists patients during surgery.

There are two main sources of energy; sun, the ultimate source; and decay of radioactive elements in the earth. Plants use the sun's energy and convert it into food and oxygen. The remains of plants and animals that lived millions of years ago have been converted into fossil fuels such as coal, oil and natural gas.

23 Fossil fuels are actually

- A The remains of decayed living matter.
- B Elements that existed millions of years ago.
- C Products of the sun's energy that has been converted.
- D Radioactive elements that have not changed their form.

WARM-BLOODED AND COLD BLOODED ANIMALS	
WARM-BLOODED ANIMALS	COLD BLOODED ANIMALS

Can remain active in cold environments	Have difficulty surviving in cold environments
Can live in almost any surface environment on Earth	Have difficulty surviving in arctic regions or on high mountains
Require a greater food supply	Can survive longer periods without food
Smaller warm-blooded animals lose heat more quickly	More energy efficient

24 Which characteristic enables cold-blooded animals to live without food for a long period?

- A They do not have to eat a lot.
- B They can live in any environment.
- C They are more energy efficient.
- D They do not live in arctic regions.

The earth acts like a big magnet. *It* produces a magnetic field which makes compass needles and magnets point in the direction of its magnetic poles.

25 *It* refers to

- A The magnet.
- B Magnetic pole.
- C Magnetic field.
- D The Earth.

Questions 26-30 are based on the following passage.

Some minerals are prized for their beauty rather than for any practical use. Any mineral worn as jewellery can be 26 as a gem. Some minerals are organic in 27. Many other semi-precious stones are silicate minerals such as quartz, amethyst, jade, garnet and topaz.

The most precious stones are also the 28 and the most durable. These include ruby, sapphire, emerald and diamond, most of which are 29 under high temperatures and pressures deep in Earth. Although it is the hardest mineral known, diamond is made from pure carbon. Diamonds are formed when carbon is placed under enormous pressure, around 600km beneath Earth's surface. Diamonds are so 30 that they are used to make industrial drills and saws.

26 A stared

 B observed

 C regarded

 D watched

27 A size

 B origin

 C structure

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- D** shape
- B** created
- 28 A** rarest
- C** shaped
- B** strangest
- D** produced
- C** thinnest
- 30 A** soft
- D** oddest
- B** hard
- 29 A** formed
- C** durable
- D** applicable

KERTAS SOALAN TAMAT