Question on Assertion and Reason Class8

The question below consists of an assertion and a Reason. Use the following key to choose the appropriate answer.

A If both assertion and reason are correct and reason is correct explanation of the assertion

B If both assertion and reason are correct, but the reason is not the correct explanation of the assertion

C If assertion is correct, but reason is incorrect.

D If assertion is incorrect, but reason is correct.

E If both assertion and reason is incorrect

Chapter1 Cell and its Structure

1. Assertion: Cell is structural and functional unit of life.

Reason: Some of the cells can perform all the function of a living organism.

1. Assertion: Animal cell shows large variation in their shape.

Reason: Cell membrane is the outer cover of animal cell and it provides flexibility.

1. Assertion: Endoplasmic reticulum forms the transport system of the cell.

Reason: Endoplasmic reticulum is network of membranes which provides channel for transport.

1. Assertion: The plant cell has a fixed shape and rigidity.

Reason: The cell membrane gives fixed shape and rigidity to the cell.

1. Assertion: In multi cellular organism there are specialized cell for performing specific function.

Reason: There are organ system made up of different organs, different organs made of different tissue which perform different function in multi cellular organism.

1. Assertion: Animal cell is different from plant cell.

Reason: Both plant cell and animal cell have cell membrane and mitochondria.

1. Assertion: Cell wall is non living structure.

Reason: Cell wall does not give shape to the cell.

1. Assertion: A multi cellular organisms grow by cell division or multiplication.

Reason: Viruses multiply on their own.

1. Assertion: mitochondria have their own DNA.

 Reason: They are formed by division of pre existing cell.

1. Assertion: Cell membrane is fluid structure.

 Reason: Cell membrane is flexible.

 Chapter 2

 Micro organism

1. Assertion: Virus is considered as being on the borderline between living and nonliving entities.

Reason: They are able to multiply on their own.

1. Assertion: Antibiotics should be taken on the advice of doctors for prescribed time and duration.

Reason: If taken when not required antibiotics may kill some of useful bacteria in the body.

1. Assertion: The replenishment of soil with nutrients is done by some micro organisms.

Reason: Fungi and bacteria are common decomposer.

1. Assertion: Disease which spreads from an infected person to healthy person is known as non –communicable disease.

Reason: The disease spreads from one person to another through air, water, food, physical contact or insect.

1. Assertion: Malaria, Dengue can be prevented by using mosquito net and mosquito repellent.

Reason: The causative organism spread through contaminated food and water.

1. Assertion: The fungi live on or inside other plant and animal.

Reason: they are able to grow anywhere on land, water

1. Assertion: Microorganism releases harmful substances called toxins.

Reason: Toxins can cause diseases in plants.

1. Assertion: Nitrogen fixation is useful in agriculture.

Reason: Nitrogen fixing bacteria are present in root nodules of legumes.

1. Assertion: A mosquito can cause many diseases in humans.

Reason: Mosquito can be controlled by preventing stagnation in water.

 Chapter 3

 Metal and Non metal

1. Assertion: Gold and Platinum are noble metals.

Reason: Both are least reactive metals.

1. Assertion: Silver is not used for making electrical cables.

Reason: Silver is the best conductor of electricity.

1. Assertion: All metals are solid in nature at room temperature.

Reason: Mercury occurs in liquid state at room temperature.

1. Assertion: Copper is used in making cooking utensils.

Reason: Copper is a good conductor of electricity.

1. Assertion: Pure gold is mixed with copper or silver to make jewellery.

Reason: Pure gold is soft.

1. Assertion: Stainless steel is used in making of surgical implements.

Reason: Stainless steel is resistant to corrosion.

1. Assertion: Copper is used to make electric wires.

Reason: Copper has very low electrical resistance.

1. Assertion: Bronze is used for making statues.

Reason: Bronze is an alloy of copper and tin.

1. Assertion: The property of metals by virtue of which they can be drawn into wires is known as ductility.

Reason: Metals are good conductor of electricity but poor conductor of heat.

1. Assertion: Metals are sonorous.

Reason: They are generally brittle in solid state.

1. Assertion: Metals can be used for making bells

 Reason: Metals are sonorous.

1. Assertion: An alloy is a homogenous mixture of one or more metals, or a metal and a non-metal.

Reason: Alloys are resistant to corrosion.

 Chapter 4

 Force and Pressure

1. Assertion: A potter makes pots of different sizes and shapes from kneaded clay.

Reason: Force may bring about change in the size or shape of an object.

1. Assertion: When same force is applied for same time, to both car and truck. The car picks up a greater speed than truck in that time.

Reason: The magnitude of force needed depends on the mass of object and value of change of speed.

1. Assertion: In tug a war, when both the teams pull the rope, with equal and opposite force the rope will remain stationery.

Reason: The unequal force may not bring about change in state of rest.

1. Assertion: A ball rolling along the ground, gradually slows down and finally comes to rest.

Reason: This happens due to force of friction between the ball and the ground.

1. Assertion: As we move to higher altitudes, breathing can become difficult.

Reason: At higher altitude there is decrease in the atmospheric pressure.

1. Assertion: We can drink cold drink from a bottle with help of straw.

Reason: The pressure inside the straw is more than the pressure outside.

1. Assertion: It is difficult to carry a bag with narrow straps as compared to carry the same bag with broader strap.

Reason: When the same force acts over a small area its effect is more.

1. Assertion: Falling of rain drops is a contact force.

Reason: Gravitational force is an example of contact force.

1. Assertion: Pressure = force /area

Reason: P =Force /area, here F force is thrust.

1. Assertion: Force can be added in pressure.

Reason: Force and pressure has same magnitude.

1. Assertion: Pressure cookers are fitted with ebonite handles.

Reason: Ebonite is strong.

 Chapter 5

 Friction

1. Assertion: We often see that small children are easily able to pull a suitcase fitted with wheels.

Reason: The rolling of wheel is not able to reduce friction.

1. Assertion: We do not slip when we walk on wet floor.

Reason: The water forms thin layer between the feet and the floor and decreases the friction.

1. Assertion: When we vigorously rub for few minutes they become cold.

Reason: This is because friction leads to production of heat.

1. Assertion: Gymnasts often apply coarse substance / chalk on their hands to have better grip of uneven bars.

Reason: The chalk powder increases friction between their hands and uneven bars.

1. Assertion: We apply water between the moving parts of machine to increase efficiency of

machine.

Reason: Lubricants applied on the surface of moving part reduces the friction.

1. Assertion: Rocket has a special streamlined body.

Reason: It increases the friction.

1. Assertion: A meteor generally burns in the atmosphere.

Reason: Gravitational force is non – contact force.

1. Assertion: It is harder to start to slide a heavy box across the floor than to keep it sliding.

Reason: Sliding friction is less than rolling friction.

1. Assertion: Lubrication is the most common way to reduce friction.

Reason: Lubricants can be solids, liquids, semi- solids.

1. Assertion: Static friction has a constant value.

Reason: Static friction is a self adjusting force.

 Chapter 6 Sources of Energy

1. Assertion: Coal and petroleum are fossil fuels.

Reason: Coal and petroleum can be replenished in short period of time.

1. Assertion: Peat is a soft brown substance and it is earliest stage during the formation of coal.

Reason: Peat contains over 90 percent carbon.

1. Assertion: Strong heating of coal in absence of air is called carbonization.

Reason: Strong heating of coal in absence of air produce coke, coal tar and coal gas.

1. Assertion: Coal tar is highly inflammable gas.

Reason: Coal tar is used as domestic as well as industrial fuel.

1. Assertion: LPG, CNG are cleaner and better fuel.

Reason: These gases on burning release carbon dioxide in smaller amount.

 Chapter 7

 Combustion

1. Assertion: White phosphorus is kept under water.

Reason: Ignition temperature is the minimum temperature at which substance catches fire.

1. Assertion: No one should be allowed to take any burning material with in premises of petrol pump.

Reason: Petrol is highly combustible substance.

1. Assertion: Middle zone of candle is non luminous.

Reason: Partial combustion of wax vapours take place in the middle zone.

1. Assertion: Water can be used to extinguish fire caused by electric short circuit.

Reason: Water is poor conductor of electricity.

1. Assertion: Burning of coal and diesel release Sulphur dioxide gas, which causes acid rain.

Reason: Sulphur dioxide dissolves in water vapours to produce carbonic acid.

 Chapter 8 Conservation of plants and animals

1. Assertion: Cheetah, Gaur lion and sloth bear are vulnerable species.

Reason: Vulnerable species are on high risk of extinction.

1. Assertion: The process of restoring and recreating area of forest is called deforestation.

Reason: Restoring forest causes soil erosion.

1. Assertion: Periodic movement of birds from the place of living to a new area and its subsequent return journey back to original place is called migration.

Reason: Birds migrate because they do not need favourable place to breed

 Chapter 9 Crop production and its management

1. Assertion: Time period of kharif crop is November to April.

Reason: Kharif crop is dependent on the western monsoon.

1. Assertion: For sowing seeds are scattered by seed drill.

Reason: Sowing of seeds is done before preparation of soil.

1. Assertion: Organism like rats, locusts that attack and damage crop are called pest.

Reason: Chemicals are sprayed on the crops to kill pest.

1. Assertion: lodging is not good for the plants.

Reason: Untimely rain and strong winds causes falling down of plants.

1. Assertion: Cutting and gathering of crops is called threshing.

Reason: Harvesting and threshing is done by combine.

 Chapter10

 Refraction and Dispersion of light

1. Assertion: The splitting of white light into its component is called dispersion.

Reason: Drops of water suspended in air, scatter the white light.

1. Assertion: In air, all colours propagate with same speed.

Reason: Speed is equal to distance upon time.

1. Assertion: Concave lens always form real and inverted image.

Reason: Concave lens, diverges the parallel beam of light.

1. Assertion: Convex lens is also called magnifying glass.

Reason: Convex lens always converges parallel beam of light on a point .

 Chapter11

 The Human Eye

1. Assertion: The lens of eye forms a real, inverted image of the object on the inner coat of the eye.

Reason: The screen of the eye is called the retina.

1. Assertion: For both the eyes, the blind spot is exactly on the same plane.

Reason: The blind spot position varies for the left eye and the right eye.

1. Assertion: Butterflies can see not only in front and sides but towards the back as well.

Reason: Butterflies have large eye that seem to be made up of thousands of little eyes.

1. Assertion: Our eye such a wonderful optical instrument that they can see distant as well nearby objects with almost same clarity.

Reason: The eye has ability to adjust the shape or curvature.

1. Assertion: During old age there is excessive curvature of cornea and elongation of the eyeball.

Reason: It happens due to development of a membrane over it which is known as cataract.

1. Assertion: Vision problems may be due to illness, deficiencies, genetic and inherited problems.

Reason: Diabetes, glaucoma, cataract, Vitamin A deficiency and transference of a defective genes from one generation to another, is harmful vision.

 Chapter 12

 Sound

1. Assertion: Vibrations are the basic cause of all sounds.

Reason: Whenever a source produce a sound there are always some vibrations linked with it.

1. Assertion: Even if a loud explosion were to take place at any point on the moon, it would not be heard even at nearby points.

Reason: Unlike the earth, the moon has no atmosphere.

1. Assertion: We hear thunder, a little after seeing the lightning.

Reason: Light propagates faster than sound.

1. Assertion: We call sounds produced by barking of dogs , honking of horns of trucks, buses and cars as noise .

Reason: They are unpleasant sounds produced due to the regular or periodic vibrations.

1. Assertion: Human being cannot detect the sounds of frequency less than 20 Hz or more than 20,000 Hz

Reason: The audible range of frequency of sound for human beings extends from about 20 Hz to about 20,000Hz.

 Chapter13

 Synthetic Fibres and Plastics

1. Assertion: Rayon is called regenerated fibre.

Reason: The material used in the preparation of Rayon is wood cellulose.

1. Assertion: Nylon is often known as wonder polymer.

Reason: It is truly manmade fibre.

1. Assertion: Acrylic fibre appear to resemble wool.

Reason: They are used for making blankets.

1. Assertion: It is advisable to wear synthetic clothes while working in the kitchen.

Reason: They do not absorb sweat.

1. Assertion: Synthetic fibres cause lot of pollution.

Reason: They are highly durable.

1. Assertion: Thermosetting plastic cannot be remoulded again.

Reason: They have cross – linked arrangement of molecules and does not get de formed on heating.

 Chapter 14

 Reproduction in Animals

1. Assertion: Earthworm is a hermaphrodite animal.

Reason: The same individual produces both type of gametes.

1. Assertion: A child has some characteristics of father and some characteristics of mother.

Reason: Fertilisation of male and female gametes take place inside the body of a female.

1. Assertion: Human being is an oviparous animal.

Reason: It produces an egg in every 28 days.

1. Assertion: The breaking of egg shell so that chick can come out on hatching.

Reason: This is done artificially by keeping the eggs in an incubator.

1. Assertion: In same animals, the young ones, initially are very different from their adult

Reason: This is due to indirect development called metamorphosis.

 Chapter 15

 Reaching the age of adolescence

1. Assertion: The spurt growth is more evident in girls between 11-13 years of age.

Reason: The girls of this age become capable of reproduction.

1. Assertion: In boys the Adam’s apple is highlighted in front of their neck.

Reason: Larynx grows more in boys than in girls.

1. Assertion: Acne and pimple are very common among adults.

Reason: This is due to increased production of sweat from sweat glands.

1. Assertion: Pituitary gland triggers shift of adolescence towards an adult stage by releasing hormones.

Reason: Hormones are the chemical substance produced and secreted by the endocrine glands.

1. Assertion: Father is responsible for the determining the sex of the child.

Reason: Sperms have either 22+X or 22+Y chromosomes.

1. Assertion: In a frog, the tadpole stage hatches from egg and passes through various stage to become an adult.

 Reason: The hormone thyroxine produced by the thyroid gland of the frog is essential to carry out the process of metamorphosis.

1. Assertion: Poor nutrition in adolescence can have adverse health consequences in adulthood.

Reason: A balanced and healthy diet, during adolescence promotes proper growth and over all maturity.

 Chapter 16 Electric current and its chemical effects

1. Assertion: Pond water is good conductor of electricity.

Reason: Pond water contains several salts.

1. Assertion: Sodium chloride is a strong electrolyte.

Reason: Acetic acid is weak electrolyte.

1. Assertion: Passage of electricity through liquids is called electrolysis

Reason: Electrolysis causes chemical change within the electrolyte.

1. Assertion: Cells are an example of conversion of chemical energy into electrical energy.

Reason: Volatic cell is not a source of electric current.

1. Assertion: Anode connected to a positive terminal of battery.

Reason: Oxygen bubbles are formed at electrode

1. Assertion: Chromium plating is done on bath taps.

Reason: Chromium helps to avoid corrosion.

1. Assertion: Whenever there is relative motion between a magnet and a coil, a current flows through the coil.

Reason: Phenomenon of generating electricity by changing the magnetic field is called electromagnetic induction.

 Chapter 17

 Stars and the solar system

1. Assertion: Alpha century is a star.

Reason: Alpha century is closest to Sun.

1. Assertion: Cassiopeia is shaped like W or M.

Reason: Cassiopeia is a constellation.

1. Assertion: Pole star is used for navigation.

Reason: Pole star appears stationary from the earth.

1. Assertion: Venus is the brightest planet in the solar system.

Reason: Jupiter is the largest planet of solar system.

1. Assertion: Sun is a star.

Reason: Star emits their own light.

1. Assertion: Artificial satellite revolves around the earth.

 Reason: Artificial satellites are far than the moon.

 Chapter18

 Earthquakes

1. Assertion: Maximum damage occurs at epicentre.

Reason: Epicentre is present directly above the focus.

1. Assertion: Earthquake is a natural destructive phenomenon.

Reason: Destructive energy of an earthquake is measured on Richter scale.

1. Assertion: Earthquake can trigger tsunami.

Reason: Earthquake can cause lightning.

1. Assertion: The earthquake measuring 2 on Richter scale can cause severe damage.

Reason: Earthquake can cause severe damage to life and property.

1. Assertion: The point, on the earth surface, directly above the epicentre is called focus.

Reason: Epicentre is the point of an earthquake inside the earth.

 Chapter19

 Pollution of Air

1. Assertion: Acid rain causes damage to monuments.

Reason: Acid rain contains acid like nitric acid and sulphuric acid.

1. Assertion: Air pollution is contamination of air by unwanted substances.

Reason: Air pollution has harmful effects on both living and nonliving things.

1. Assertion: Global warming is a gradual decrease in average temperature of the earth.

Reason: Green house effect is causing warming of the earth.

1. Assertion: Excessive burning of fossil fuels does not cause air pollution.

Reason: Carbon monoxide, formed by incomplete combustion of fuels is a minor source of air pollution.

 Chapter20

 Pollution of water

1. Assertion: Filtration is a physical method of removing impurities.

Reason: In filtration impure water is passed through successive layers of sand, gravel and charcoal.

1. Assertion: Potable water is not fit for drinking.

Reason: Potable water is harmful for aquatic life.

1. Assertion: Pesticides and fertilizers cause water pollution.

Reason: Pesticides and fertilizers get dissolve in water.

1. Assertion: We should consciously try to save water and not waste it.

Reason: Water is a precious resource to maintain life on earth.

1. Assertion: Water pollutants are any foreign materials that pollute water.

Reason: Acids and oil spills do not cause water pollution.