



ASSERTION AND REASON QUESTIONS

For these questions, two statements are given – one labelled *Assertion* (A) and the other labelled *Reason* (R). Select the correct answer to these questions from the codes (i), (ii), (iii) and (iv) as given below:

- (i) Both A and R are true and R is correct explanation of the assertion.
- (ii) Both A and R are true but R is not the correct explanation of the assertion.
- (iii) A is true but R is false.
- (iv) A is false but R is true.

Chapter 1: Sources of Food

1. **Assertion:** Carnivores have sharp pointed canines.
Reason: Sharp pointed canines are meant to tear the flesh.
2. **Assertion:** Cereals make the staple food of human beings.
Reason: Cereals are rich source of proteins.
3. **Assertion:** Crocodile swallows its prey whole.
Reason: The teeth of crocodile are not meant for tearing and chewing the food.
4. **Assertion:** Radish and carrot store food in them.
Reason: Radish and carrot contain minerals and vitamins.
5. **Assertion:** We get tea from dried seeds of tea plant.
Reason: Tea is used as a beverage.

Chapter 2: Components of Food

1. **Assertion:** Ghee and butter provide energy to the body.
Reason: Ghee and butter repair damaged cells and tissues.
2. **Assertion:** Glucose is the source of instant energy.
Reason: Glucose is the simplest sugar.
3. **Assertion:** Sitting in sunlight is good for our bones.
Reason: Sunlight helps the body to make vitamin D that makes bones strong.
4. **Assertion:** In malnutrition, a person becomes obese.
Reason: Extra carbohydrates and proteins in the body are converted into fat for storage.
5. **Assertion:** People living on mountains often develop goitre.
Reason: Goitre is caused due to enlargement of thyroid gland.

Chapter 3: Fibre to Fabric

1. **Assertion:** Man-made fibres are called synthetic fibres.
Reason: Man-made fibres are made from chemicals.
2. **Assertion:** Cotton fabrics are cool to wear.
Reason: Cotton plants need high temperature and bright sunlight to grow.
3. **Assertion:** Jute is grown in West Bengal.
Reason: Warm and humid climate is best for jute plants.
4. **Assertion:** We get wool from the hair of sheep.
Reason: Removing hair from sheep is called sericulture.
5. **Assertion:** Nylon is a natural fibre.
Reason: Nylon is a very strong fibre.



Chapter 4: Kinds of Materials

1. **Assertion:** Cooking vessels are made of metals.
Reason: Metals pass heat through them easily.
2. **Assertion:** A silver spoon is shiny while a wooden spoon is dull.
Reason: Objects made of metal shine.
3. **Assertion:** Rubber floats on water.
Reason: Lighter objects float on water.
4. **Assertion:** An iron nail is attracted by a magnet.
Reason: Magnets are good conductors of electricity.
5. **Assertion:** We cannot see through a brick wall.
Reason: Transparent materials do not allow light to pass through them.

Chapter 5: Separation of Substances

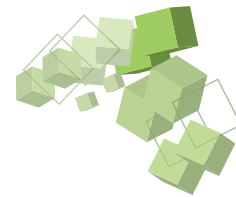
1. **Assertion:** Husk from grains is separated by winnowing.
Reason: In winnowing, lighter husk particles are carried away by wind.
2. **Assertion:** We separate a mixture of liquids by filtration.
Reason: Separating funnel is used to separate oil from water.
3. **Assertion:** We obtain salt from sea water.
Reason: Sun's heat evaporates water leaving the salt behind.
4. **Assertion:** Residue is the substance that remains on the filter paper.
Reason: Filter paper absorbs all the filtrate flowing through it.
5. **Assertion:** A mixture of solute and solvent is called solution.
Reason: The mixture of salt and water is called salt solution.

Chapter 6: Changes Around Us

1. **Assertion:** Folding of a paper is a reversible change.
Reason: After unfolding, the size of paper remains unchanged.
2. **Assertion:** Mixing of vinegar and baking soda is a physical change.
Reason: We cannot get back vinegar and baking soda once they are mixed.
3. **Assertion:** Burning of a substance is a chemical change.
Reason: After burning a substance, no new product is formed.
4. **Assertion:** Growing of a baby into an adult is an irreversible change.
Reason: Irreversible change cannot be reversed.
5. **Assertion:** Burning of candle is a chemical change.
Reason: Molten wax on burning produces carbon dioxide gas and water vapour.

Chapter 7: The World of Living

1. **Assertion:** Animals move in search of food and shelter.
Reason: The change in position of a body part is called movement.
2. **Assertion:** Plants respire to get energy.
Reason: Oxygen produced during photosynthesis is used for burning food.
3. **Assertion:** The leaves of a touch-me-not plant get drooped on touching.
Reason: All living beings respond to stimuli.



4. **Assertion:** *Bryophyllum* grows new plants from their buds.
Reason: All living beings reproduce their own kind.
5. **Assertion:** Plants breathe through stomata.
Reason: Inhaling used air and exhaling fresh air is called breathing.

Chapter 8: Habitat of the Living Things

1. **Assertion:** Insects are cold-blooded animals.
Reason: The body temperature of insects changes with the outside temperature.
2. **Assertion:** Many desert animals live in burrows during daytime.
Reason: In hot desert, the day temperature reaches up to $45^{\circ} - 60^{\circ}\text{C}$.
3. **Assertion:** Trees on mountains have needle-like leaves.
Reason: Needle-like leaves keep the trees warm.
4. **Assertion:** Camel is called the 'the ship of desert'.
Reason: Camel can easily go far off places in deserts.
5. **Assertion:** Boreal forests receive snowfall throughout the year.
Reason: Temperature in boreal forests ranges from -50° to 30°C .

Chapter 9: Plants – Form and Functions

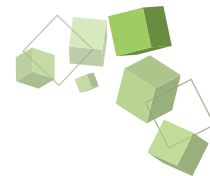
1. **Assertion:** Flowers make the surroundings beautiful.
Reason: Flowers generally have sepals, petals, stamens and carpels.
2. **Assertion:** Petiole is absent in dicot leaves.
Reason: The leaves without petiole are called sessile leaves.
3. **Assertion:** In cacti, leaves are modified into spines.
Reason: The spines on cacti avoid loss of water by transpiration.
4. **Assertion:** Perennial plants live for more than two years.
Reason: Radish is a perennial plant.
5. **Assertion:** Stilt roots arise from horizontal branches of plants.
Reason: Stilt roots provide additional support to the plant.

Chapter 10: Body and Movements

1. **Assertion:** Human body is made up of a number of organ systems.
Reason: Human body is formed of a large number of cells.
2. **Assertion:** A fish has streamlined shape of body.
Reason: Streamlined shape keeps the body light.
3. **Assertion:** Backbone is a muscular tube.
Reason: Backbone protects the spinal cord.
4. **Assertion:** Muscles work in pairs.
Reason: Biceps and triceps are the muscles of a pair.
5. **Assertion:** A snail moves by creeping movement.
Reason: A snail has a muscular foot for creeping.

Chapter 11: Motion and Measurement

1. **Assertion:** A milestone is placed on the roadside.
Reason: A milestone shows speed limit to be followed.



2. **Assertion:** MKS units were also called Giorgi Units.
Reason: MKS units were developed by A Giorgi.
3. **Assertion:** Personal units are not used as standard units.
Reason: Personal units vary from person-to-person.
4. **Assertion:** A thread can be used to measure the length of a curved line.
Reason: Thread is easily available everywhere.
5. **Assertion:** The motion of the moon around the earth is rotatory motion.
Reason: Rotatory motion is a kind of circular motion.

Chapter 12: Light

1. **Assertion:** A glowing bulb is a luminous body.
Reason: The glowing bulb emits light on its own.
2. **Assertion:** A shadow is formed by an opaque object.
Reason: Opaque objects block the path of light.
3. **Assertion:** In lunar eclipse, the shadow of the earth falls on the moon.
Reason: Lunar eclipse is a natural phenomenon.
4. **Assertion:** Mirrors are coated with ferric oxide paint.
Reason: Mirrors are smooth and polished surfaces.
5. **Assertion:** The surface of water acts as a plane mirror.
Reason: Water surface forms image by absorbing light.

Chapter 13: Electricity and Circuits

1. **Assertion:** A glowing bulb gives heat and light.
Reason: Electrical energy in bulb is changed into heat and light energy.
2. **Assertion:** Electricians use rubber gloves while working.
Reason: Rubber gloves save against electric shocks.
3. **Assertion:** Water is not used to put out fire due to electricity.
Reason: Water is a good conductor of electricity.
4. **Assertion:** Primary cells cannot be reused.
Reason: Primary cells get rusted after one use.
5. **Assertion:** When the key is taken out, the circuit becomes 'closed'.
Reason: Electric current flows in a closed circuit.

Chapter 14: Introduction to Magnetism

1. **Assertion:** Keepers are used to conserve the strength of magnets.
Reason: Keepers are made of wood.
2. **Assertion:** Repulsion is the sure test of magnetism.
Reason: Repulsion is possible only between the like poles of two magnets.
3. **Assertion:** A magnet which has lost its power is called electromagnet.
Reason: A magnet loses its power on heating or hammering.
4. **Assertion:** A magnet has attractive property.
Reason: Unlike poles of two magnets attract each other.
5. **Assertion:** Box of a magnetic compass is made of aluminium.
Reason: Aluminium is a nonmagnetic substance.




Chapter 15: Water – A Natural Resource

1. **Assertion:** Plants die during floods.
Reason: If soil has excess water, the roots do not get oxygen to respire.
2. **Assertion:** Rain is the main source of water.
Reason: Rainwater flows and collects in rivers and lakes.
3. **Assertion:** All the three states of water are interconvertible.
Reason: Water exists in three states of matter.
4. **Assertion:** Conversion of water into vapour form is called condensation.
Reason: On heating, water changes into vapour or gaseous state.
5. **Assertion:** During drought, the soil dries up.
Reason: Using of excess of groundwater leads to drought.

Chapter 16: Air Around Us

1. **Assertion:** Carbon dioxide gas is used to extinguish fire.
Reason: Carbon dioxide gas does not support burning.
2. **Assertion:** Mountaineers carry oxygen cylinders with them.
Reason: The air on mountains is too cool to breathe in.
3. **Assertion:** Air helps in the dispersal of seeds and pollen grains.
Reason: Light seeds and pollen grains are easily blown away by air.
4. **Assertion:** All fuels burn in the presence of oxygen.
Reason: Oxygen is present naturally in the air.
5. **Assertion:** The blades of windmills blow the air in surroundings.
Reason: Windmills are used to generate electricity.

Chapter 17: Garbage In, Garbage Out

1. **Assertion:** Biodegradable waste does not decay.
Reason: Biodegradable waste attracts flies.
 2. **Assertion:** Polythene bags remain unaffected for a long time.
Reason: Polythene bags are not decomposed by microbes.
 3. **Assertion:** Blue bins are used for plastic waste only.
Reason: All recyclable waste can be dumped into blue bins.
 4. **Assertion:** Landfilling is better than open dumping.
Reason: In landfilling, solid waste is dumped outside the city.
 5. **Assertion:** Vermicomposting is carried out by using redworms.
Reason: Redworms generate heat to form compost.
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ANSWERS

Chapter 1

1. (a) 2. (c) 3. (a) 4. (b) 5. (d)

Chapter 2

1. (c) 2. (a) 3. (a) 4. (d) 5. (b)

Chapter 3

1. (a) 2. (b) 3. (a) 4. (c) 5. (d)

Chapter 4

1. (a) 2. (a) 3. (d) 4. (c) 5. (c)

Chapter 5

1. (a) 2. (d) 3. (b) 4. (c) 5. (b)

Chapter 6

1. (a) 2. (d) 3. (c) 4. (b) 5. (a)

Chapter 7

1. (b) 2. (a) 3. (a) 4. (d) 5. (c)

Chapter 8

1. (a) 2. (a) 3. (c) 4. (b) 5. (d)

Chapter 9

1. (b) 2. (d) 3. (a) 4. (c) 5. (d)

Chapter 10

1. (a) 2. (c) 3. (d) 4. (b) 5. (a)

Chapter 11

1. (c) 2. (a) 3. (a) 4. (b) 5. (d)

Chapter 12

1. (a) 2. (a) 3. (b) 4. (d) 5. (c)

Chapter 13

1. (a) 2. (b) 3. (a) 4. (c) 5. (d)

Chapter 14

1. (c) 2. (a) 3. (d) 4. (b) 5. (a)

Chapter 15

1. (a) 2. (a) 3. (b) 4. (d) 5. (c)

Chapter 16

1. (a) 2. (c) 3. (a) 4. (b) 5. (d)

Chapter 17

1. (d) 2. (a) 3. (d) 4. (b) 5. (c)