



## 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 (a), (b), (c) and (d) as given below:

- (a) Both A and R are true and R is correct explanation of the assertion.
- (b) Both A and R are true but R is not the correct explanation of the assertion.
- (c) A is true but R is false.
- (d) A is false but R is true.

### Chapter 1: Sources of Food

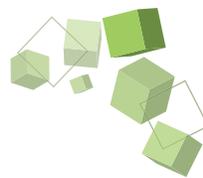
1. **Assertion:** Carnivores have sharp pointed canines.  
**Reason:** Sharp pointed canines are meant to tear the flesh.
2. **Assertion:** Cereals make the staple food of human beings.  
**Reason:** Cereals are rich source of proteins.
3. **Assertion:** Crocodile swallows its prey whole.  
**Reason:** 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

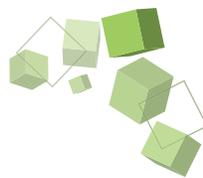
1. **Assertion:** Husk from grains is separated by winnowing.  
**Reason:** In winnowing, lighter husk particles are carried away by wind.
2. **Assertion:** We separate a mixture of liquids by filtration.  
**Reason:** Separating funnel is used to separate oil from water.
3. **Assertion:** We obtain 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.

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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° – 60°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

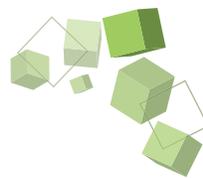
1. **Assertion:** Flowers make the surroundings beautiful.  
**Reason:** Flowers generally have sepals, petals, stamens and carpels.
2. **Assertion:** Petiole is absent in dicot leaves.  
**Reason:** The leaves without petiole are called sessile leaves.
3. **Assertion:** In cacti, leaves are modified 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.

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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

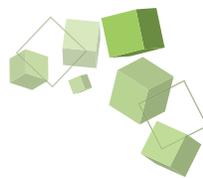
1. **Assertion:** A glowing bulb is a luminous body.  
**Reason:** The glowing bulb emits light on its own.
2. **Assertion:** A shadow is formed by an opaque object.  
**Reason:** Opaque objects block the path of light.
3. **Assertion:** In lunar eclipse, the shadow of the earth falls on the moon.  
**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.



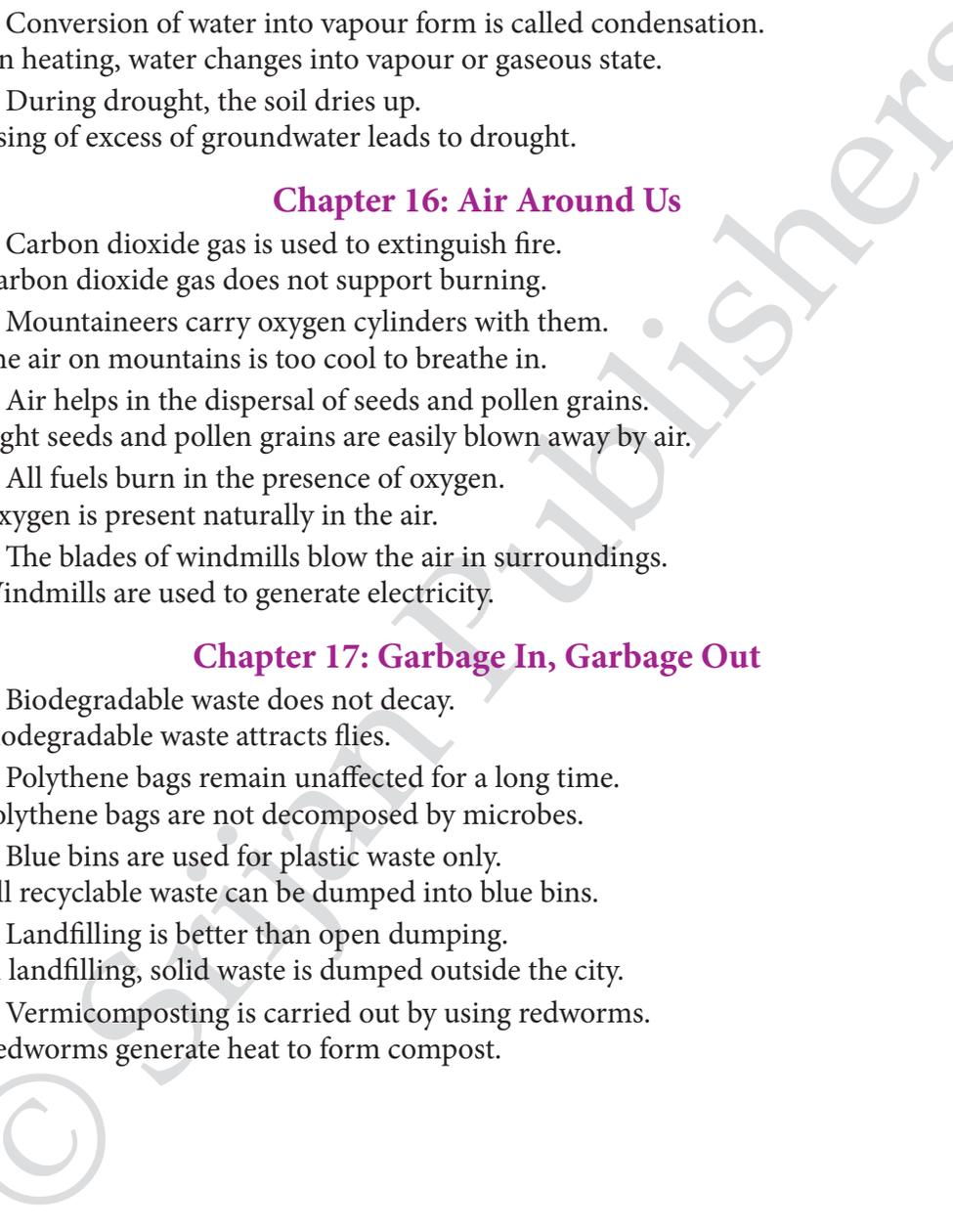
## Chapter 15: Water – A Natural Resource

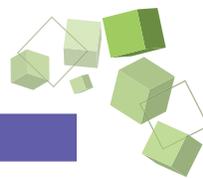
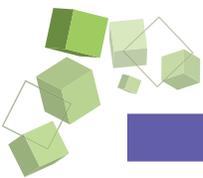
1. **Assertion:** Plants die during floods.  
**Reason:** If soil has excess water, the roots do not get oxygen to respire.
2. **Assertion:** Rain is the main source of water.  
**Reason:** Rainwater flows and collects in rivers and lakes.
3. **Assertion:** All the three states of water are interconvertible.  
**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)