
1. Me and My Surroundings

1. Choose the correct option :

- (a) (i) clean (√)
- (b) (iii) both of these (√)
- (c) (i) in the dustbin (√)

2. Fill in the blanks :

- (a) (Students will fill the name of the colour themselves)
- (b) dustbin
- (c) (students will fill themselves)
- (d) Green plants

3. Write T for true and F for false.

- (a) F, (b) F, (c) T, (d) F.

4. Answer the following questions.

- (a) The area around us is called our surroundings.
- (b) (i) Hello, I am (*Write your name here*)
(ii) I study in class I
(iii) I am (*Write number of years*) years old.

2. Our Body

1. What is needed for the following actions ?

- (a) Looking — EYES (b) Listening — EARS
- (c) Speaking — MOUTH

2. Fill in the blanks.

- (a) Legs (b) Hands
- (c) Tongue (d) Skin

3. Match the columns :

- (a) (iii) → leg (b) (i) → hand
- (c) (iv) → nose (d) (ii) → eyes

4. Label the body parts.

EYE, KNEE, SHOULDER, CHEST, STOMACH, THIGH

3. Healthy Habits

1. Fill in the blanks :

- (a) handkerchief (b) hands
- (c) brush (d) dustbin

2. Write T for true and F for false.

- (a) F, (b) T, (c) T, (d) F.

3. Answer the following questions :

- (a) To keep myself clean
 - (i) I take a bath everyday.
 - (ii) I brush my teeth daily.
 - (iii) I keep my surroundings clean.
- (b) Cleanliness is good for us because it protects us from illness.

4. WATER, SOAP, TOWEL, BRUSH

4.

Let's Know about Living Things

1. Fill in the blanks :

- (a) living
- (b) ¹food/²grow
- (c) feel
- (d) man made

2. Write T for true and F for false statements.

- (a) F, (b) F, (c) T

3. Match the following :

- (a) Living thing → (ii) Frog
- (b) Man made thing → (iii) Pen
- (c) Natural non-living thing → (i) Stone

4. Mention whether you feel happy or sad in the following conditions :

- (a) When you are scolded by your teacher. 

- (b) When you take care of plants. 

5. Answer the following questions.

- (a) Names of living things.
Dog, Cat, Cow, Goat, Mosquito, Parrot
- (b) Names of non-living things.
Stone, Pebbles, Pen.
- (c) Features of living things :
 - (i) They need food.
 - (ii) They breathe.
 - (iii) They grow.

5.

Plants Around Us

1. Colour this plant — Do yourself

- 2. Herbs** : Coriander, mint, bathua, pea
- Shrubs** : Rose, Hibiscus, Kair
- Trees** : Khejri, Peepal, Margosa (neem), banyan, Acacia (Babool)

3. Write T for true and F for false statements.

(a) F, (b) F, (c) T, (d) F.

4. Number of seeds.

Papaya–many, Mango–one, Peech–one, Watermelon–many, pea–many.

5. Answer the following questions.

(a) Plants need water, sunlight, air and soil to grow and live.

(b) Trees growing commonly in my locality are :

(i) Margosa (Neem) (ii) Peepal

(c) **Flowers which I have seen**

Rose, China rose (Hibiscus), Jasmine, marigold, Sunflower, Poppy etc.

6. Select the correct option.

(a) (ii) Leaf

(b) (ii) Roots

(c) (i) Tree

(d) (i) Climber

(e) (ii) Fruit

6. Animals Around Us

1. Circle the odd one out :

(a) (ii) Fish (others two live on land but fish lives in water)

(b) (iii) Lion (Others two are pet animals but lion is wild)

(c) (ii) Parrot (Others two live in water but parrot is a flying bird)

2. Complete the names of the animals given in the following boxes :

MONKEY

DOG

FROG

ELEPHANT

BUTTERFLY

STARFISH

3. Match the following :

(a) Giraffe

(iii) Lives on land

(b) Whale

(iv) Lives in water

(c) Frog

(ii) Lives on land as well as in water

(d) Very small animal

(i) Ant

4. Answer the following questions :

(a) Three wild animals.

(b) Three pet animals

Lion, tiger, deer.

Dog, Cat, rabbit.

5. Colour these animals

Do yourself.

6. Give two examples each of :

(a) Animals which have feathers on their body–parrot, sparrow.

(b) Animals that can live on land as well as in water–frog, turtle.

(c) Domestic animals–Goat, Cow.

7.

The Food We Eat

1. Circle the odd one out :

- (a) (ii) **Fish** : It is non-veg food whereas other food items are obtained from plants.
 (b) (iv) **Soft drinks** : It is a junk food but other food items are good for health.
 (c) (iv) **Mango** : It is a plant food but other items are obtained from animals.

2. Write T for true and F for false statement.

- (a) T, (b) F, (c) F, (d) T.

3. Fill in the blanks :

- (a) Food (b) Wash
 (c) Dinner (d) Food

4. Students will do themselves.

Hint : Chapati, Fruits, Rice are veg food items.

Meat, egg, fish are non-veg food items.

5. **Breakfast** : Bread, butter, cornflakes, milk, apple
 (Plants) (Animals) (Plants) (Animals) (Plants)
- Lunch** : Chapati, Pulses, Rice, Vegetables, Curd
 (Plants) (Plants) (Plants) (Plants) (Animals)
- Dinner** : Chapati, Vegetables, Pulses
 (Plants) (Plants) (Plants)

6. Do yourself.

8.

Water : Our Basic Need

1. Circle the odd one out :

- (a) (ii) Reading Other two activities need water.
 (b) (iii) Stone Other two are living things.
 (c) (ii) Ocean Other two have fresh water but ocean has salty water.

2. Answer the following questions :

- (a) Rain is the main source of fresh water.
 (b) We need water for : drinking, bathing, washing clothes.
 (c) Sources of water :

Fresh water : River, lakes, ponds, wells.

3. Write T for true and F for false statement.

- (a) T, (b) F, (c) F, (d) T.

4. Students will do themselves.

Hint : In first picture water is present in the form of ice on the peaks of mountain. In third picture a river is present.

5. Fill in the blanks.

- (a) ocean (b) clean
(c) covered (d) ill (Sick)

9. Our Clothes

1. Write T for true and F for false statements.

- (a) F, (b) F, (c) T, (d) F.

2. Fill in the blanks.

- (a) sheep (b) cold
(c) cloth (d) plastic

3. Do yourself.

4. Do yourself.

Correct sequence

Ist Row: Frock, Socks, T-shirt

2nd Row : Trousers, shorts, Gloves

5. Answer the following questions.

- (a) We wear clothes to protect our body from cold, heat and rain.

They also protect us from wind, dust and insects.

- (b) We get cotton from cotton plant.

We get wool from sheep.

6. Colour the pictures yourself.

10. Let's Know About Air

1. Select the correct option :

- (a) (iv) all of these (b) (iv) all of these
(c) (iii) air can be seen

2. Write T for true and F for false statements.

- (a) T, (b) F, (c) T, (d) T.

3. Fill in the blanks :

- (a) breeze (b) breathe
(c) wind/air (c) space

4. Answer the following questions :

- (a) Moving air is called wind.

(b) We all need air to breathe

or

We all need air to live.

(c) **Properties of air :**

- Air fills space.
- Air moves things.
- Air has weight.

(d) **Uses of air :**

Air is needed to live.

Air is needed for burning things.

5. Do yourself.

11.

Our Home

1. **Match the columns :**

- | | | |
|---------------------------------|---|-------------------|
| (a) We cook our food here | → | (iii) Kitchen |
| (b) We welcome our guests here | → | (iv) Drawing room |
| (c) We sleep in this room | → | (i) Bedroom |
| (d) We take a bath in this room | → | (ii) Bathroom |

2. **Answer the following questions :**

- (a) A home is the place where we live with our family.
- (b) The home protects us from cold, heat, rain and animals.
- (c) Types of rooms of a house are :
Bedroom, drawing room, bathroom and kitchen etc.

3. Do yourself.

4. Do yourself.

12.

Safety First

1. **Write T for true and F for false statements :**

- (a) T, (b) F, (c) T, (d) T.

2. **Fill in the blanks :**

- | | |
|--------------|------------|
| (a) footpath | (b) safety |
| (c) queue | (d) yellow |

3. **Answer the following questions :**

- (a) **Safety :** Safety means to keep ourselves protected from all types of accidents.
- (b) **Two safety rules :** Do not play with sharp objects.
Do not touch sockets and switches with wet hands.

4. Do yourself.

5. Do yourself.

13. Weather and Seasons

1. Select the correct option :

- (a) (iii) Summer season (b) (i) Summers
 (c) (ii) Warmer (d) (i) Autumn

2. Write T for true and F for false statements :

- (a) T, (b) F, (c) T, (d) T.

3. Complete the following words :

- (a) UMBRELLA (b) AUTUMN
 (c) SUMMER

4. Fill in the blanks :

- (a) winter (b) cotton
 (c) rainy (d) summer

5. Answer the following questions :

- (a) When the weather remains the same for a long period of time, it is called season.
 (b) We wear woollen clothes in the winter season.
 (c) Different weather conditions are :
 Sunny, rainy, cold, cloudy, windy.
 (d) Fruits of summer season are water melon, muskmelon and cucumber.

14. The Sun, Moon and Stars

1. Select the correct option :

- (a) (i) East (b) (ii) Day
 (c) (i) Stars (d) (i) The Sun

2. Match the columns :

- (a) Stars → (iii) Make patterns
 (b) Moon → (iv) Changes its shape
 (c) East → (ii) Sunrise
 (d) Sun → (i) Source of light and heat
 (e) West → (v) Sunset

3. Fill in the blanks :

- (a) East (b) The Sun
 (c) Moon (d) Stars

4. Answer the following questions :

- (a) Stars look very small because they are very far from us.
 (b) Three heavenly bodies are.
 the Sun, the Moon and the stars.
 (c) The sun rises in the East. The sun sets in the west.
 (d) The living things get sunlight and warmth from the Sun. The plants make their food in sunlight.

Science—2

1. Let's Know About Plants

1. What do you call it ?

- (a) Root (b) Leaves (c) Tree (d) Fruit

2. Fill in the blanks :

- (a) A flower (b) Herbs (c) Water

3. Select the odd one out.

- (a) (iii) Soil (b) (ii) root (c) (iv) mustard

4. Answer the following questions.

- (a) Different parts of a plant are root, stem, branches, leaves, flowers and fruits.
(b) A tree is a tall and woody plant. A herb is a small plant with soft and green stem.
(c) Climbers and creepers both have weak stem that cannot stand upright.
(d) Tree : Margosa (Neem), Peepal, Banyan.
Shrub : Hibiscuss, Rose, Kair.
Herb : Mint, Coriander, Mustard.

2. Plants : What Do They Give Us ?

1. Select the odd one out.

- (a) (iv) Polythene (All others are obtained from plants)
(b) (ii) spinach (All others are fruits)
(c) (iv) rice (All others are oil crop)
(d) (ii) iron (All others are obtained from plants)

2. Fill in the blanks :

- (a) Plants (b) Air (c) Shelter

3. State whether the following statements are true or false.

- (a) False (b) True
(c) False (d) False

4. Match the columns :

- (a)—(iii), (b)—(iv), (c)—(v), (d)—(i), (e)—(ii).

5. Answer the following questions.

- (a) (i) **Food grains** : Rice, wheat, maize.
(ii) **Pulses** : Arhar, mung bean, urad.
(iii) **Oil giving plants** : Mustard, coconut, sesame.

- (b) (1) Food grains, (2) Pulses, (3) Oil, (4) Spices, (5) Wood.
- (c) Plants provide shelter to many wild animals.
Plants also provide food to many wild animals.

3. Animals : Our Friends

1. Select the odd one out :

- (a) Lion (all others are domestic animal)
- (b) Potato (all others are obtained from animals)
- (c) parrot (all others provide us milk)

2. Give an example each of :

- (a) Horse
- (b) Honey bee
- (c) Dog.

3. State whether the following statements are true or false.

- (a) True
- (b) True
- (c) False
- (d) False

4. Fill in the blanks :

- (a) wool
- (b) milk
- (c) animal
- (d) pet

5. Answer the following questions.

- (a) A cow walks, a deer runs, a frog jumps, a crocodile creeps, a bird flies, a fish swims.
- (b) Useful tamed animals which are kept in houses or in farms are called domestic animals. We provide food to these animals and take care of them.
- (c) We get eggs, meat and milk from animals.
- (d) Horse, ox, camel.

6. Complete the crossword puzzle with the help of the given clues.

- 1. CREEP, 2. COW, 3. OXEN, 4. LEATHER, 5. GOAT,
- 2. COOP, 6. WOOL, 7. EGG, 8 HEN

4. Animals of Jungle Book

1.

W	D	W
W	D	W
W	D	D

2. Choose the correct option :

- (a) (ii) Shark (b) (ii) Bear
(c) (ii) Bat (d) (ii) Langur

3. Match the columns.

(a)—(iii), (b)—(iv), (c)—(ii), (d)—(i).

4. State whether the following statements are true or false.

- (a) True (b) True
(c) True (d) False.

5. Answer the following questions.

- (a) Animals which are not domestic are called wild animals. They take care of themselves. Most of them live in jungles.
(b) (i) Zebra, rhino, (ii) Lion, tiger, (iii) Whale, shark.
(c) Largest land animal is elephant. Students should draw its picture themselves.

5.

Our Body

1. Circle the odd one out :

- (a) (ii) heart (all others are external organe) (b) (ii) write (all others need legs)
(c) (iii) smell (all others are done by hand) (d) (i) bones (all others are soft organs)

2. Complete following words.

Chin (External body part).

Brain (Related to thinking).

Temple (This body part shares its name with a worship place).

3. Answer the following questions.

(a) **Internal Organs :** 1. Lungs, 2. Kidneys.

External Organs : 1. Eyes, 2. Ears.

- (b) It forms framework of the body and provides shape to it. It protects many internal organs.
(c) The way in which we hold our body while sitting, standing or walking is called posture.
(d) The joints of skeleton allow us to move.

4. State whether the statements are true or false.

- (a) False (b) True
(c) False (d) False
(e) True.

5. To which organ of our body would you associate following activities ?

- (a) Legs (b) Hands
(c) Ears (d) Stomach
(e) Lungs

6.

Our Food

1. Circle the odd one out.

- (a) pulses (all others are energy giving food) (b) maize (It is a cereal grain)
(c) soyabeans (It is a plant food)

2. State whether the following statements are true or false.

- (a) False (b) True
(c) True (d) True
(e) False

3. Fill in the blanks : (Selecting correct words from the box.)

- (a) hands (b) stale/Junk
(c) breakfast (d) energy

4. Answer the following questions.

- (a) 1. Chapati (Bread), 2. Rice, 3. Potato.
(b) (i) Food provides us energy to do work.
(ii) Food helps us to grow.
(iii) It keeps us healthy and protects us from diseases.
(c) (i) Energy giving food.
(ii) Body building food.
(iii) Protective food.
(d) Protective food are mango, papaya, guava (all fruits)
Cabbage, Cauliflower (all vegetables).

7.

The Science of Cleanliness

1. State whether the following statements are true or false.

- (a) False (b) True
(c) True (d) True

2. Complete the following words.

- (a) DEFECATION (b) HAIR & NAILS
(c) WASTAGE

3. Fill in the blanks :

- (a) washed (b) brush
(c) covered (d) before and after.

4. Answer the following questions.

- (a) Cleanliness means keeping our body and surroundings clean.
- (b) Cleanliness protects us from germs and diseases. It keeps us healthy and happy.
- (c) (i) We should take a bath daily.
(ii) We should wear washed and clean clothes.
(iii) We should brush our teeth twice daily.

8. Our House And Clothes

1. Select the odd one out.

- (a) Cotton (a natural fibre)
- (b) Jute (plant product)
- (c) Lawn (uncovered area)

2. State whether the following statement are true or false.

- (a) True
- (b) False
- (c) False
- (d) True

3. Complete the following clothes.

- (a) YARN
- (b) IGLOO
- (c) NYLON

4. Answer the following questions.

- (a) Clothes protect us from cold, heat and rain.
Clothes improve our appearance also.
- (b) A house protects us from heat, cold and rain.
It also protects us from animals.
We can keep our things safely in our house.
- (c) Materials used to make kutcha house are Mud, wood, dry leaves or grass.
- (d) We wear woollen clothes in winter because they keep us warm in winter season.

9. Water : Our Best Friend

1. Circle the correct answer.

- (a) (iii) all living beings.
- (b) (ii) Water vapour
- (c) (iii) colourless.

2. State whether the following statements are true or false.

- (a) True
- (b) True
- (c) True
- (d) True

3. Answer the following questions.

- (a) Various sources of water are wells, ponds, lakes, rivers, ocean and rain water.
- (b) Three forms of water are water, ice and water vapour.
- (c) We need water for drinking, cooking, washing clothes, brushing our teeth, bathing and for growing plants etc.

10.

Air Around Us

1. State whether the following statements are true or false.

- (a) False
- (b) True
- (c) True
- (d) True
- (e) False.

2. Fill in the blanks.

- (a) wind
- (b) space
- (c) dry
- (d) cotton
- (e) weather.

3. Select the odd one out.

- (a) Sunglasses (others are used during rain)
- (b) Woollen coat (others are used during summer)
- (c) Green plants (others things make air dirty)

4. Give an example of each :

- (a) Sail boat
- (b) Water melon
- (c) Autumn
- (d) Water vapour.

5. Answer the following questions.

- (a) Living things need air for breathing.
- (b) Air is made dirty by : Smoke, dust and germs.
- (c) Trees make our air fresh and clean. That is why we should plant more and more trees.
- (d) The conditions of air, sun and water vapour at a given time is called weather.
- (e) Four important seasons are : Summers, Rainy, Autumn and winter.
- (f) Properties of Air :
 - Air fills space
 - Air has weight
 - It moves things.

11.**Rocks and Minerals**

1. Match the columns.

(a)—(iv), (b)—(i), (c)—(v), (d)—(iii), (e)—(ii).

2. Fill in the blanks.

- (a) Gemstones (b) marble
(c) soft (d) chalk
(d) sand stone.

3. Select the odd one out.

- (a) coal (others are hard rock) (b) chalk (others are gemstones)
(c) granite (others are soft rock) (d) Taj Mahal. (others are made of sandstone)

4. Answer the following questions.

- (a) **Hard Rock** : Marble, granite, sandstone.
Soft Rock : Coal, chalk and slate.
(b) Precious stones used in jewellery are called gemstones Topaz, Ruby etc.
(c) (i) Common salt (ii) Iron
(iii) Copper
(d) Coal is a soft rock. It is different from granite because granite is a hard rock.

12.**Safety First**

1. State whether the following statements, are true or false.

- (a) False (b) False
(c) True (d) False

2. Fill in the blanks.

- (a) Safety rules (b) Traffic
(c) Wet

3. Do yourself.**4. Answer the following questions.**

- (a) Protecting oneself from any harm is called safety.
(b) (i) Do not play with sharp objects.
(ii) Do not touch any electrical switch with wet hands or wet feet.
(c) (i) Keep left.
(ii) Follow traffic signals.
(iii) Do not play on the road.

13.

Light and Shadows

1. **State whether the following statements, are true or false.**
 - (a) True
 - (b) False
 - (c) False
 - (d) True
2. **Fill in the blanks.**
 - (a) Sun
 - (b) Shortest
 - (c) Light
 - (d) Source
3. **Select the odd one out.**
 - (a) Pen, (others are sources of light.)
 - (b) Candle, (others do not give light.)
 - (c) Night, (others have light of the sun.)
4. **Answer the following questions.**
 - (a) When a thing stops light from passing through it, a dark patch is formed on the opposite side of the light. This dark patch is called the shadow of the thing.
 - (b) The sun, electric bulb, burning candle.
 - (c) At noon time the shadow will be shortest.
 - (d) No, shadow is always formed on the opposite side of the source of light.
5. Do yourself.

Science—3

1. Living and Non-living Things

1. Circle the odd one out :

- (a) Spider (All others are non-living things)
- (b) Silk (All others are living things)
- (c) Mushroom (All others are non-living things)

2. True/False :

- (a) False
- (b) False
- (c) True
- (d) False

3. Select the correct option :

- (a) (ii) Stomata
- (b) (iv) all of these
- (c) (iii) Grass

4. Fill in the blanks :

- (a) eggs
- (b) gills
- (c) stomata
- (d) reproduction

5. Answer the following questions :

(a) Features of living things

- They need food to live.
- They breathe.
- They grow.
- They respond to changes.
- They reproduce.
- They move.

(b) Green plants make their own food. They use raw materials like air and water in the presence of sunlight to make food.

This process is known as photosynthesis.

(c) Organs of living things that help them is breathing air

Human being—Nose, windpipe and lungs.

Fish—Gills

(d) Reproduction :

Production of their own kind by living things is called reproduction.

(e) A pencil is a non-living thing because :

It does not need food.

It does not breathe in air.

It neither grows nor move.

Pencil does not reproduce.

2.

Let's Know About Plants

1. Choose the correct answer :

- (a) (ii) Spinach (b) (iii) mint (c) (iv) plastic

2. True/False :

- (a) False (b) False (c) True (d) True

3. Give two examples each of :

- (i) mint, coriander, basil (tulsi) (ii) spinach, fenugreek (methi).
(iii) mustard, coriander.

4. Match the columns :

(A) (a)—(iii), (b)—(iv), (c)—(i), (d)—(ii)

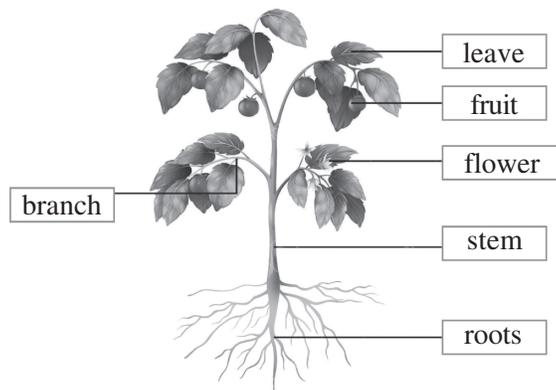
(B) (a)—(iv), (b)—(iii), (c)—(i), (d)—(ii)

5. (b) Shows curry leaves

6. Answer the following questions :

- (a) Two main parts of a plant are root and shoot.
(b) Parts of plant present on shoot are : Branches, leaves, buds, flowers and fruits.
(c) Oxygen gas is released.
(d) On the basis of nature of stem, the plants may be trees, shrubs, herbs, climbers and creepers etc.
(e) **Uses of Plants :**
- Plants give us food—cereals, pulses, fruits and vegetables.
 - Plants give us fibres to make clothes—cotton, jute.
 - Plants give us wood for furniture.
 - Plants give us medicines—Tulsi, neem, giloy etc.
 - They provide shelter to many animals.
 - Plants give us oxygen for breathing. They make our air fresh and clean.

(f) Parts of a plant :



3.

The Animal World

1. Choose the correct answer :

- (a) (iii) — Dog
(b) (i) — Mosquito
(c) (iv) Crow

2. True/False :

- (a) True
(b) False
(c) True
(d) False

3. Two examples each of :

- (a) Carnivore animals — Tiger, Lion.
(b) Pests — Cockroach, Mosquito.
(c) Animals active during night—Bat, cockroach.
(d) Domestic animals—Cow, Buffalo.

4. (i) Cows and buffaloes are herbivore animals. They eat leaves and grass.

(ii) Unique features of Birds (any two) :

- They have wings (two front legs have been changed into wings)
- Body is covered with feathers.

(iii) Animal which can fly

- Most of the birds (Like sparrow) fly.
- Bats
- Many insects like housefly.

(iv) Omnivore animals : Animals which use plants as well animals as their food are known as Omnivore animals. Examples are bear, crow, human being etc.

(v) Animals that live in jungle and take care of themselves are called wild animals. These animals arrange their food on their own. For example lion, tiger, deer, zebra etc.

4.

Our Body

1. Select the odd one out :

- (a) (iii) brain — all others are parts of breathing system.
(b) (iii) bones — all others are parts of transport system.
(c) (ii) spinal cord — all others are examples of physical activities.

2. Fill in the blanks :

- (a) 206
(b) wind pipe
(c) digested
(d) Nervous
(e) heart

3. True/False :

- (a) False
- (b) False
- (c) True
- (d) False
- (e) True

4. Match the columns :

(a) → (iii), (b) → (iv), (c) → (v), (d) → (i), (e) → (ii).

5. Give a name to each one of the following :

- (a) Wind pipe.
- (b) Transport system
- (c) Blood
- (d) Digestive system

6. Answers :

(a) Functions of skeletal system

- (i) It gives shape and form to our body.
- (ii) It helps in movement of the body.
- (iii) Skeletal system protects many delicate internal organs.
- (b) Organs of respiratory system are nose, wind pipe and lungs.
- (c) Nervous system consists of brain, spinal cord and nerves.
Its main work is to control the activities of all other systems of the body.
- (d) Excretory system is related to throwing out wastes from the body.

5. Be Clean, Be Safe and Stay Healthy

1. True/False :

- (a) True
- (b) False
- (c) True
- (d) True

2. Fill in the blanks :

- (a) diseases
- (b) hygiene
- (c) teeth
- (d) safety
- (e) germs

3. Give a word or two :

- (a) Hygiene
- (b) First aid
- (c) Safety rules
- (d) Germs

4. Match the following :

(a) → (iii), (b) → (iv), (c) → (i), (d) → (ii).

5. Answers :

- (a) The immediate helps given to an injured person before a doctor arrives is called first aid.

(b) Safety on Road :

- Never play on the road and always walk on foot path.
- Use Zebra line for crossing a road.

(c) To keep ourselves clean and away from the disease, we should :

- Take a bath daily.
- Brush our teeth twice a day.
- Wear neat and clean clothes.

(d) Why do we need cleanliness ?

- Cleanliness keeps us away from the diseases.
- When we are clean and well dressed, we feel happy.
- It keeps us healthy.

6.**States of Matter**

1. True/False :

- | | |
|-----------|-----------|
| (a) False | (b) False |
| (c) True | (d) True |
| (e) False | |

2. Solid

Flower pot
Paper weight
Book
Spoon
iron rod
brick

Liquid

Milk
Lemon juice
Kerosene
Sea water

Gas

Air
Oxygen

3. Name the thing :

- | | |
|-------------|------------|
| (a) Gas | (b) Solid |
| (c) Melting | (d) Liquid |

4. Select the odd one out :

- (i) Sugarcane juice—(all others are examples of solid).
- (ii) Shoes—(all others are liquid.)
- (iii) Pen—(all others are gases.)

5. Fill in the blanks :

- | | |
|------------------|--------------|
| (i) Water vapour | (ii) Water |
| (iii) Three | (iv) Heating |
| (iv) Solids | |

6. Answers :

- (a) Anything that fills space and has weight is called matter.
- (b) The matter normally exists in three forms—solid, liquid and gas.
- (c) **Solids :** Things that have a fixed shape and size are called as solid.
Example : A stone, wood, a tumble etc.
- (d) Water exists in all three forms (solid, liquid and gas) in nature.
Ice is in the solid state of water.
Water is in the liquid form.
Vapour is gaseous form of water.
- (e) Liquids do not have fixed shape. They have a fixed size (volume or capacity). Liquids flow also.
Gases neither have a fixed shape nor a fixed size. Gases flow in all the possible directions to fill up all the available space.
- (f) **Gases found in air :**
 - Nitrogen
 - Oxygen
 - Carbon dioxide

7.

Soil

1. Select the odd one out :

- (a) Plastic (all others are components of soil)
- (b) Fish (all others are living things found in soil)
- (c) Organic matter (all others are types of soil particles)

2. True/False :

- (a) False
- (b) True
- (c) True
- (d) False

3. Give one or two words :

- (a) Fertile soil
- (b) Organic matter
- (c) Soil
- (d) Gravel.

4. Fill in the blanks :

- (a) Air
- (b) Water
- (c) Earthworms
- (d) Soil

- 5.** (a) The uppermost fertile layer of earth surface in which plants grow is known as soil.
- (b) • Plants need soil to grow and we depend on plants for our food and many other things. Therefore, soil is very useful for us.

- Soil plays an important role in supporting life on earth. Many useful living organisms like earthworms which are called friends of farmer also live in soil.
- (c) **Formation of soil :**
- Due to the action of sun, water, and wind, larger rocks are broken into smaller pieces. These smaller pieces turn into soil particle in millions of years.
 - Living things also promote soil formation.
- (d) Soil is made up of—mineral particles, decaying plants and animals, water, air and living things.

8. Air Water and Weather

1. Select the odd one out :

- (a) Gold (all others are three forms of water)
- (b) Petrol (all others are gases present in fresh air)
- (c) Water (all others are name of seasons)

2. True/False :

- (a) False
- (b) True
- (c) False
- (d) True

3. Match the columns :

- (a) → (iii), (b) → (iv), (c) → (i), (d) → (ii).

4. Fill in the blanks :

- (a) air
- (b) carbon dioxide
- (c) liquid water
- (d) green plants
- (e) leaves

5. (a) Gases present in air : Nitrogen, Oxygen, Carbon dioxide.

(b) In nature, water keeps changing its form continuously. It changes into water vapour and then into liquid form (Clouds) continuously It then returns to land in the form of rain water. These events form rain water cycle.

(c) Weather is the daily state of air in any given place. It is affected by the sun, wind and vapour.

(d) Main seasons of our country are summer season, rainy season and winter season (Two minor seasons are autumn and spring).

- I like rainy season.
- The temperature is neither too low nor too high.
- The land becomes green due to good growth of plants.

(e) Smoke and germs make air dirty. Smoke is released from vehicles and factories.

(f) Properties of water :

- It is colourless and smell less. It makes things wet.

- It exists in three forms in nature solid (ice), liquid (water) and gas (vapour).
- On heating it changes into vapour.

9. Sun, Moon and Stars

1. Select the odd one out :

- (a) Moon (all others are planets of our solar system).
- (b) Earth (There is life on earth whereas no life exists on remaining planets).
- (c) Saptrishi (all others are planet, saptrishi is a constellation).

2. True/False :

- (a) False
- (b) True
- (c) True
- (d) True
- (e) False
- (f) True

3. Fill in the blanks :

- (a) moon
- (b) constellation
- (c) eight
- (d) mercury.

4. Match the column :

- (a) → (iii), (b) → (iv), (c) → (i), (d) → (ii).

5. Answer :

- (a) A planet is a heavenly object that moves around the Sun in a fixed path. like–venus, earth.
- (b) **Orbit** : The fixed path taken by a planet to move around the Sun is called an orbit. (or the fixed circular path of any heavenly body.)
- (c) **Natural satellite** : A heavenly body that moves around a planet is called a natural satellite.
- (d) The Sun is very important for us because
 - It is a source of light and heat. Light enables us to see in day time.
 - Plants make their food in the presence of sunlight. We all get our food and several other valuable items from plants. We also get oxygen from plants that is made in the presence of sunlight.
- (e) Patterns formed by stars in the sky are called constellation. Saptrishi (Great bear) and orion are examples of constellation.

10. Light, Sound and Force

1. Select the odd one out :

- (a) tree (all others are luminous objects)
- (b) lamp (all others are non luminous objects)
- (c) salty (all others are quality of sound)

2. Match the columns :

(a) → (iii), (b) → (i), (c) → (iv), (d) → (ii).

3. Fill in the blanks :

- (a) noise (b) light
(c) pull (d) straight

4. True/False :

- (a) False (b) False
(c) True (d) True
(e) False

5. Answers :

(a) **Luminous Objects** : The objects that give us light are called luminous objects.

Examples : Sun, bulbs, burning candle.

(b) **Properties of shadow** :

- A shadow is formed on the side opposite to the source of light.
- A shadow does not have any colour. It is black always.

The size of shadow may increase or decrease. It depends on the distance of the source of light from the object.

- (c) **Force** :
- A pull or a push is called a force. A force is needed
 - (i) To move an object.
 - (ii) To stop a moving object or to change its direction.
 - (iii) To change the shape of an object.

(d) **Noise** : Unpleasant sound is called noise. It is often loud and irritating.

11. **Measurement**

1. Select the odd one out :

- (a) Kilogram (all others are used to measure length).
(b) Metre (all others are used to measure time).
(c) Stride (all others are units of measurement of temperature).

2. True/False :

- (a) True (b) False
(c) True (d) True

3. Match the columns :

(a) → (iii), (b) → (iv), (c) → (ii), (d) → (i)

4. Fill in the blanks :

- (a) Body parts (b) Three
(c) Capacity/volume (d) 1000
(e) litres

5. Answers :

- (a) **Measurement** : The process of finding out the size and amount of something is called measurement.
- (b) Length means how long something is. Now-a-days it is measured in terms of millimetre, centimetre, metre and kilometres etc.
- (c) Earlier people used to measure length in terms of footspan, cubit, handspan, stride etc.
- (d) Time is measured in terms of seconds, minutes and hours.
- (e) **Mass** : The mass of an object tells us how heavy the object is.
It is measured in terms of gram, kilogram etc.

Science—4

1. **Green Plants : The Main Source of Our Food**

1. State whether the following statements are true or false :

- | | |
|-----------|-----------|
| (a) False | (b) True |
| (c) False | (d) False |
| (e) True | (f) True |

2. Choose the correct option :

- (a) → (iii), (b) → (iv), (c) → (iii), (d) → (i), (e) → (ii).

3. Fill in the blanks :

- | | |
|-----------------|------------|
| (a) blue black | (b) oxygen |
| (c) stomata | (d) starch |
| (e) chlorophyll | |

4. Answer the following questions :

- (a) The process by which green plants make their food by using carbon dioxide and water in the presence of sunlight and chlorophyll is called photosynthesis. Oxygen is released in this process.
- (b) Green leaves are called food factory of the plants because they are the main site of photosynthesis (food production).
- (c) **Stomata** : Tiny holes present on the surface of leaves are called stomata. Carbon dioxide needed for photosynthesis enters the leaves through stomata. Plants also breathe in oxygen through stomata. Through these stomata water is evaporated from leaves.
- (d) Veins are just like pipe lines, they supply water and minerals taken by roots from the soil to the leaves. Water is needed in photosynthesis.
- (e) Plants and animals are dependent on each other. following facts prove it.
- All animals get their food directly or indirectly from plants.
 - Plants use carbon dioxide released by animals in breathing for their photosynthesis. On the other hand animals use oxygen produced by plants in photosynthesis.

2. **Plants of Different Habitats**

1. State whether the following statements are true or false :

- | | |
|-----------|----------|
| (a) False | (b) True |
| (c) False | (d) True |
| (e) True. | |

2. Choose the correct option :

(a) → (ii), (b) → (i), (c) → (iii), (d) → (iv), (e) → (i).

3. Fill in the blanks :

- | | |
|-------------|-------------------|
| (a) desert | (b) insectivorous |
| (c) habitat | (d) roots |
| (e) aquatic | (f) autumn |

4. Give two examples each of :

- (a) **Insectivorous plant** : Pitcher plant, venus flytrap.
(b) **Medicines obtained from plants** : Quinine, mint.
(c) **Plants of mountain region** : Pine, deodar.
(d) **Aquatic plant** : Water hyacinth, lotus.

5. Answer the following questions :

(a) **Adaptations** : Special features of living things (plants or animals) which enable them to live well in a particular type of habitat are called adaptations. For examples wings of the birds, gills of fish.

(b) **Adaptations of Desert Plants :**

- Their roots are normally very deep.
- Leaves are either absent or modified to spines (to check loss of water)
- In some of the plants the stem is green and performs photosynthesis and stores water also.

(c) **Uses of plants :**

- Plants give us food (cereals, fruits, vegetables).
- Plants are sources of many medicines.
- We get fibre from plants to make fabric (cotton).
- Plants give us valuable oxygen for breathing.
- Plants provide spices, timber, firewood, gum etc.

(d) **Special feature of plants of mountain areas :**

- They are usually cone shaped.
- Leaves are needle like.
- Leaves have a coating of wax for protection from snow.

(e) **Aquatic plants :**

Plants : which grow in water are called aquatic plants.

Main types of aquatic plants are.

Floating plants : water chestnut, water hyacinth.

Rooted and floating : Lotus.

Underwater (submerged) : Tape grass, Hydrilla.

3. Animals and Their Young Ones

1. State whether the following statements are true or false :

- (a) True
- (b) True
- (c) False
- (d) False
- (e) True

2. Name any two animals each that :

- (a) Have external ears : Rabbit, Elephant.
- (b) Lay eggs : Pigeon, crocodile.
- (c) Show caterpillar and pupa stage also in their life cycle : Butterfly, silk moth.
- (d) Give birth to young ones : Cow, Goat.

3. Fill in the blanks :

- (a) giving birth to young ones
- (b) laying eggs
- (c) egg
- (d) mammals
- (e) living organisms.

4. (a) It is laying eggs.

(b) It has feathers on its body and beak also. All birds lay eggs.

5. (a) **Reproduction** : The process of producing more of their own kind by animals is called reproduction.

(b) **Important features of mammals** :

- (i) They have hair on their body.
- (ii) Mammals have external ears.
- (iii) Mammals give birth to young ones.

(c) Stages of life cycle of an insect are :

Adult → egg → Larva → Pupa

The pupa produces an adult.

The larva of butterfly is called caterpillar.

(d) Mammals give birth to young ones.

Examples are Rat, Cat, dog etc.

4. Animal World

1. Select the correct option :

(a) → (iii), (b) → (i), (c) → (iv), (d) → (ii), (e) → (iii).

2. Give two examples each of :

- (a) Animals without back bone : Earthworm, butterfly.
- (b) Reptiles : Lizard, Tortoise.

- (c) Migratory birds : Siberian crane, Arctic tern.
- (d) Scavengers : Vulture, hyena.
- (e) Aquatic animals which are not fish : Dolphin, whale.

3. Fill in the blanks :

- (a) Scales
- (b) invertebrate
- (c) reptiles
- (d) birds
- (e) flippers
- (f) parasites

4. Match the columns :

- (a) → (iv), (b) → (iii), (c) → (v), (d) → (ii), (e) → (i).

5. State whether the following statements are true or false :

- (a) False
- (b) True
- (c) True
- (d) False
- (e) True

6. Answer the following questions :

(a) **Two groups of animals are :**

- (a) Animals without backbone : Earthworm, butterfly.
- (b) Animals with backbone : Fish, Dog.

(b) **Adaptations of a fish :**

- Boat shaped body.
- Presence of gills for breathing in water.
- Presence of fins to help in swimming.

(c) **Features of a bird that help it to fly (Adaptation of a bird)**

- Boat shaped light weight body.
- Presence of wings (upper limbs modified into wings).
- Presence of feathers make the body light in weight, and hollow bones.

(d) **Migration :**

Periodic movement of animals to a safer, more suitable area from an area of adverse weather condition is called **migration**.

Many birds come to our country from very cold areas, like siberian cranes.

(e) **Various groups of vertebrate animals are :**

Fish : Rohu, Catla, dogfish.

Amphibia : Frog, toad.

Reptiles : Lizard, Tortoise.

Birds : Sparrow, parrot.

Mammals : Sheep, goat.

5.

Our Food

1. State whether the following statements are true or false :

- (a) False (b) False
(c) True (d) False
(e) False.

2. Give two examples each of :

- (a) Energy giving food : Sugar, potato (carbohydrates).
(b) Protective food : Fruits (Mango, Orange), vegetables.
(c) Food items preserved by drying : raisins (grapes), mango slice.
(d) Sources of proteins : Pulses, milk.

3. Fill in the blanks :

- (a) Roughage (fibre) (b) Canning
(c) Proteins (d) Fats
(e) Balanced.

4. Select the correct option :

- (a) → (iii), (b) → (i), (c) → (ii), (d) → (iv).

5. Answer the following questions :**(a) Role of food in our body :**

- It provides energy to do work.
- It provides materials for growth and repair of worn out parts.
- It protects us from diseases.

(b) A diet that contains all the components of the food in right amount is called balanced diet.

(c) Food Preservation :

Protection of food from spoilage is called food preservation. (Some food items are spoiled easily if not stored properly).

Two common method of food preservation are :

- Drying
- Refrigeration and deep freezing.

(d) Various food groups are :

- (i) Energy giving food : (Carbohydrates and fats : cereal, potato, banana).
(ii) Body building food : (Proteins : Milk, pulses, egg).
(iii) Protective food : (Fruits and vegetables).

(e) **Proteins** : Pulses, beans, milk, eggs, meat and fish are rich sources of proteins. Proteins are components of food known as body building food. They also help in repairing of worn out parts (healing of wounds).

6. Our Teeth and Digestive System

1. State whether the following statements are true or false :

- | | |
|------------|-----------|
| (a) True | (b) False |
| (c) True | (d) True |
| (e) False. | |

2. Select the correct option :

- | | |
|------------|-------------|
| (a) → (iv) | (b) → (iii) |
| (c) → (ii) | (d) → (i) |

3. Fill in the blanks :

- | | |
|-------------|---------------------|
| (a) Four | (b) Canines |
| (c) Root | (d) Small intestine |
| (e) Saliva. | |

4. (Nothing is labelled in figure. Figure is incorrect).

5. Answer the following questions :

(a) Brushing of teeth does not allow plaque (a yellow layer) to deposit on our teeth. Brushing keeps our teeth clean and shiny.

(b) Number of teeth in an adult :

Incisor	=	8 (4 in upper jaw, 4 in lower)
Canine	=	4 (2 in upper jaw, 2 in lower)
Premolars	=	8 (4 in upper jaw, 4 in lower)
Molars	=	12 (6 in upper jaw, 6 in lower)

(c) **Milk teeth :** Milk teeth start eruption at the age of 6-7 months. A full set of teeth present in the mouth of a 2-3 year old child forms the milk teeth. Milk teeth are known as temporary teeth also. Milk teeth are replaced by permanent teeth.

(d) Draw the structure of a tooth (Please refer to page 46 T.B.)

(e) **Digestion :** Digestion is a process in which complex components of the food are converted into simple usable substances or (nutrients) parts of alimentary canal of human being.

Alimentary canal : Mouth, food pipe, stomach, small intestine, large intestine, anus.

Digestive glands : Salivary glands, liver etc., alimentary canal and digestive glands together make digestive system.

7.**Clothes : Our Basic Need****1. State whether the following statements are true or false :**

- | | |
|-----------|-----------|
| (a) False | (b) False |
| (c) True | (d) True |
| (e) False | (f) True |

2. Fill in the blanks :

- | | |
|----------------------|----------------------|
| (a) Fabric | (b) woollen |
| (c) mulberry | (d) cotton |
| (e) Naphthlein balls | (f) Synthetic fibre. |

3. Select the correct option :

- (a)—(i), (b)—(iii), (c)—(iv), (d)—(i).

4. Match the column :

- (a) → (iii), (b) → (i), (c) → (iv), (d) → (ii).

5. Answer the following questions :

- (a) We wear clothes because :
- Clothes protect us from sun, cold and rain.
 - Clothes protect us from dust and dirt.
 - Full sleeves clothes protect us from insect bite.
 - They also make us smart.
- (b) Cotton clothes are considered better in summer because.
- Cotton clothes absorb sweat and keep our body cool.
 - Cotton is made from natural fibre therefore does not cause allergy.
 - Light colour cotton is comfortable in summers, and does not absorb heat.
- (c) **Care of clothes :**
- By taking good care of our clothes we can make them lasting.
 - Cotton clothes should be washed in cold water with good soap or detergent.
 - Woollen and silk clothes require dry cleaning. Mothballs should be used while storing them.
- (d) **Synthetic clothes :** Clothes/fabric made with fibre made in factories are called synthetic clothes. (They are not obtained from plants or animals).
- Their unique features are :
- They are lasting, have fast colours.
 - Some are wrinkle free and stretchable.
 - Do not absorb sweat and may cause allergy in some people.

(e) **Advantages of natural fibres :**

- Natural fibres do not cause allergy.
- They are cozy and comfortable.
- Their production does not pollute the environment.

8. Solid, Liquid and Gases

1. State whether the following statements are true or false :

- | | |
|-----------|----------|
| (a) False | (b) True |
| (c) False | (d) True |
| (e) True. | |

2. Fill in the blanks :

- | | |
|------------------|-------------|
| (a) Solute | (b) Heating |
| (c) Condensation | (d) Solid |
| (e) Gas. | |

3. Choose the correct option :

- (a)—(iii), (b)—(i), (c)—(iv), (d)—(i).

4. One word Answer :

- | | |
|------------|-------------------|
| (a) Solute | (b) Matter |
| (c) Gas | (d) Condensation. |

5. Answer the following questions :

- (a) Any thing that occupies space and have weight is called matter.
 (b) The three common states of matter are solid, liquid and gas.
 (c) (a) When a liquid is heated it turns into vapour, the process is known as evaporation.
 (b) When a liquid is cooled it is converted into solid, the process is known as freezing.
 (d) The process of conversion of vapour into a liquid is called condensation.
 (e) **Solvent :** The liquid that can dissolve some substances is called a solvent.

Solute : A solid that gets dissolved in a liquid (solvent) is called a solute.

Solution : A uniform mixture of solvent and solute is known as solution.

9. Soil

1. State whether the following statements are true or false :

- | | |
|-----------|-----------|
| (a) False | (b) True |
| (c) True | (d) False |
| (e) True | |

2. Select the correct option :

(a)—(i), (b)—(iii), (c)—(ii), (d)—(iv), (e)—(iii).

3. Fill in the blanks :

- (a) Loam (b) Soil erosion
(c) Roots (d) Clay
(e) Wind.

4. Answer the following questions :

- (a) The upper fertile layer of earthcrust that supports growth of plants is called soil. It contains mineral particles and organic matter.
- (b) The heat of the sun, water and wind break down big pieces of rocks into smaller and smaller pieces. Over a period of time these pieces are broken down into fine powder like particles. These particles mix with organic matter to form soil.
- (c) Soil supports growth of plants. We get our food from various types of crop plants that grow in soil.
Soil forms habitat for several types of useful organisms.
- (d) **Soil Erosion :** The removal of top fertile soil by strong winds or running water is known as soil erosion.
- (e) The practice of checking soil erosion is known as soil conservation. The best method of checking soil erosion is planting more and more trees.
- (f) **Topsoil :** The uppermost layer of soil is known as topsoil. Most of the nutrient rich organic matter and fine mineral particles are present in top soil.
- (g) **Loam :** A good mixture of clay and sand with enough amount of organic matter forms loam soil. Loam is the best soil for the growth of plants. It is very good in water retaining capacity.

10.**Water**

1. (b) Evaporation depends on area of exposed surface. Greater the surface area exposed, more will be evaporation. The surface area is minimum in container (b).

2. State whether the following statements are true or false :

- (a) False (b) True
(c) False (d) True

3. Fill in the blanks :

- (a) Liquid water (b) Evaporation
(c) Ice (d) Colour

4. Match the columns :

(a) → (iv), (b) → (iii), (c) → (i), (d) → (ii).

5. Answer the following questions :

- (a) Properties of water :
- Water is a colourless solvent.
 - It is tasteless and odourless
 - It exists in three forms in nature. One form of water can be converted into another.
- (b) Water vapours are present in air. When these vapours come in contact with a cold surface they change into liquid water. This water appears as drops 'of dew' on leaves and grass in cold morning. It is called condensation.
- (c) The rate of evaporation (or the amount of water evaporated) depends on exposed area. When we spread the clothes after washing the surface area is increased. Hence the wet clothes dry faster.
- (d) Water is tasteless.
- (e) Water has power too. Following examples prove it.
 Falling water can rotate a turbine. It is used to generate energy.
 Water vapours have great power too. Vapour power is used in steam engines.

11. Force, Work and Energy

1. State whether the following statements are true or false :

- (a) False (b) True
 (c) True (d) False
 (e) True.

2. Choose the correct option :

- (a)—(iii), (b)—(ii), (c)—(iii), (d)—(ii), (e)—(iv).

3. Fill in the blanks :

- (a) Force (b) Machine
 (c) Friction (d) Sun
 (e) Solar.

4. Give two examples each of :

- (a) Forms of energy : Light, heat. (b) Wheel and axle : A bullock cart, motor.
 (c) Lever : a rod, a pair of scissors. (d) Inclined plane : a ramp, a slide.

5. Answer the following questions :

- (a) Force : A push or a pull is called a force.
- (b) A force can do following :
- It can stop a moving object.
 - It can make an object to move.
 - It can reduce or increase the movement of an object.

- It can change the shape of an object.
 - It can change the direction of a moving object.
- (c) **Energy** : The capacity to do work is called energy. Examples of forms of energy are solar energy, wind energy, energy of food (chemical energy).
- (d) Example of lever :
- Bottle opener, Nut cracker.
 - A rod.
- (e) Various types of simple machines are :
- A wheel : Cycle, scooter, motor car.
 - Lever : A rod, a pair of scissors, nut cracker.
 - Pullies : For lifting water from a well, for moving curtains.
 - Inclined plane : ramp.
 - Screws.
 - Wedge.
- (f) **Friction** : When an object moves on a surface, a type of force starts acting between the object and the surface. This force tries to stop the movement of the object and is called friction.
- Advantage** : Friction does not allow us to fall down during walking.
We can reduce the speed of a vehicle or stop it by friction.

12. Air, Water and Weather

1. State whether the following statements are true or false :

- | | |
|-----------|-----------|
| (a) True | (b) True |
| (c) True | (d) False |
| (e) True. | |

2. Fill in the blanks :

- | | |
|-----------------|------------|
| (a) Temperature | (b) filter |
| (c) Chlorine | (d) Sun's |
| (e) Faster. | |

3. Select the correct option :

- (a)—(iv), (b)—(iii), (c)—(iv), (d)—(i).

4. One word answer :

- | | |
|----------------|------------------|
| (a) Wind | (b) Chlorination |
| (c) Atmosphere | (d) Filtration. |

5. Answer the following questions :

- (a) Methods of purification of water :
- Sedimentation and decantation.

- Filtration
 - Boiling.
 - Chlorination.
 - Water fit for drinking is known as potatable water.
- (b) **Weather** : Weather is the daily state of the air in any given place. It means weather is what the sky and air outside like, such as cold, cloudy, windy etc.
Factors that contribute to the weather are : temperature, wind, humidity, clouds and rain.
- (c) Gently moving air is called breeze. In contrast very strong fast moving air is known as a storm.
- (d) Uneven heating of land and water causes wind to move. Water heats up and cools down slower than land.
The hot air above land rises up and cool air from nearby cooler areas rushes in to take its place. This differential heating of land and water gives rise to breeze in the coastal areas.
- (e) Adding chlorine tablet to water to kill its germs is called chlorination.
- (f) **Sedimentation** : In sedimentation process the dirty water is kept undisturbed for sometime. After sometime the sand, mud and heavy insoluble impurities settle down at the bottom of the container. The process of settling down of impurities of water is called sedimentation.
Decantation : In this process the clear water is carefully and slowly poured out leaving the impurities in container. This process of gently separating clear water (after sedimentation) is called decantation.

13.

Our Solar System

1. State whether the following statements are true or false :

- | | |
|-----------|-----------|
| (a) True | (b) False |
| (c) True | (d) False |
| (e) True. | |

2. Select the correct answer :

- (a)—(iii), (b)—(ii), (c)—(iv), (d)—(ii), (e)—(iii).

3. Fill in the blanks :

- | | |
|-------------------|-----------|
| (a) Mercury | (b) Moon |
| (c) Constellation | (d) Venus |
| (e) Saturn. | |

4. Give one word answer :

- | | |
|--------------|-------------------|
| (a) Neptune | (b) Jupiter |
| (c) Rotation | (d) Constellation |
| (e) The sun. | |

5. Answer the following questions :

- (a) Our earth is known as blue planet. Its unique feature is, our earth is the only planet of solar system where life exists.
- (b) There are eight planets in our solar system. Their names with sequence from the sun : Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune.
- (c) A pattern formed in the sky by a group of stars is known as constellation.
Example : Orion, Great bear (Saptrishi).
- (d) **Phases of moon :** Moon, the only satellite of earth, does not have light of its own. It simply reflects the sunlight. The parts of the moon that receives sun's light gets illuminated and becomes visible to us. These shapes are called phases of the moon.
- (e) **Rotation :** The earth spins like a top. It spins on an imaginary line called axis. This spinning movement of the earth is called rotation. It takes 24 hours for the earth to complete one rotation.
- Revolution :** The movement of the Earth around the sun in a fixed orbit is called revolution. The Earth takes about 365 days to revolve once around the sun.

14. Clean and Green Surroundings

1. State whether the following statements are true or false :

- (a) False (b) True
(c) False (d) False
(e) True.

2. Select the correct option :

- (a)—(iv), (b)—(iv), (c)—(i), (d)—(iv).

3. Fill in the blanks :

- (a) Compost/manure (b) 5th June
(c) Deforestation (d) Decomposed
(e) Forests.

4. Answer the following questions :

(a) **Cleanliness is needed because :**

- Cleanliness keeps germs away and protects us from illness.
- Cleanliness keeps us away from offensive odour.
- We feel happy in a clean and green surroundings.

(b) **We should plant more and more trees because :**

- Trees make our air fresh and clean (Give us oxygen).
- Trees help in bringing rain.
- They check soil erosion, flood and drought.

(c) **Three methods of disposal of wastes are :**

- Composting
- Recycle
- Landfill

(d) **Harms of accumulation of garbage**

- Disease spreading creatures like cockroach, mosquitoes, flies multiply in garbage.
- Garbage allows germs to grow.
- It emits bad odour.
- It makes ground water polluted
- Balance of nature is disturbed

(e) (a) **Deforestation :** Large scale cutting/felling of forest trees is called deforestation.

(b) Recycle means making the waste reusable once again. Plastic, glass etc. are recycled.

1. How do Plants Grow

1. State whether the following statements are true or false :

- (a) False
- (b) True
- (c) False
- (d) True
- (e) False

2. Match the columns :

(a) (v), (b) (iii), (c) (iv), (d) (i), (e) (ii).

- 3. (a) farming
- (b) weeds
- (c) crop
- (d) cotyledons
- (e) Germination

4. Give two example's for each of the followings :

- (a) Cotton, oak, Sunflower
- (b) Sugarcane, rose, potato
- (c) Fig, xanthium

5. Give one word :

- (a) Cotyledons
- (b) seed coat
- (c) Irrigation
- (d) Ploughing

6. (a) **Agricultural Practices** : Ploughing, sowing, irrigation, manuring, weeding and protection harvesting, threshing, winnowing

(b) Ploughing makes the soil loose and upturned, It increases amount of soil air. The roots of plants grow well and easily in loose soil, upturning helps in mixing of nutrients. Therefore ploughing makes soil fertile.

(c) **Reproduction** : The process by which a living being produces more of its kind is called reproduction. Reproduction ensures continuous survival of the particular type of organism.

(d) Dispersal of seed takes the seeds to new habitats. It checks overcrowding of seeds at one place. It means it protects the seeds from unnecessary competition for water minerals, air, space etc.

(e) Germination is the process by which seeds form seedlings during favourable conditions. Seeds need water, air and warmth for germination.

(f) Parts of seed

- (a) Seed coat
- (b) seed leaves (cotyledons)
- (c) Baby plant (embryo). The baby plant has baby root and baby shoot (for figure see book)

2.

Our Food and Health

1. State whether the following statements are true or false :

- | | |
|-----------|-----------|
| (a) False | (b) True |
| (c) False | (d) False |
| (e) True | |

2. Give reasons :

- (a) We should wash our hands before eating food because several communicable diseases spread by eating food with unwashed hands. There may be germs of disease like typhoid, cholera, dysentery on unwashed hands. To remove germs hands are washed before eating foods.
- (b) To a tired person glucose solution is given because glucose is an instant source of energy. It provides energy quickly, that is needed by a tired person.
- (c) We should cover our mouth with a handkerchief while coughing and sneezing.
Whenever someone coughs or sneezes germs may be released out with some saliva in the form of fine droplets. These are then breathed in by a healthy person. These germs are present in the saliva of an infected person. As a preventive measure (to protect people from getting sick) we should cover our mouth while coughing and sneezing. It protects people from air borne and droplet infections.

3. Match the columns :

- (a) → (iii), (b) → (iv), (c) → (ii), (d) → (i).

4. Fill in the blanks :

- | | |
|----------------|------------------|
| (a) Mosquitoes | (b) food/water |
| (c) Goiter | (d) Communicable |
| (e) obesity | |

5. Give two example each of :

- (a) Deficiency disease : Anaemia, Rickets, goitre.
- (b) Diseases spread by mosquitos : Malaria, dengue, Chickngunya.
- (c) Source of Proteins : Pulses, ground nut, milk.
- (d) Protective food : All fruits and vegetables.
- (e) Communicable diseases : Typhoid, malaria.

6. Answer the following questions :

- (a) **Balanced diet** : A diet that contains all the components of the food in right amount is known as balanced diet.
- (b) We need food because
- It provides energy to do work.
 - It Provides material for growth, development and repair of worn out part.
 - Food protects us from diseases.

- (c) Components of the food
Carbohydrates, proteins, lipids, vitamins, minerals, roughage and water
- (d) The practice of staying clean to prevent diseases is called hygiene.
Both personal as well as community hygiene are essential
- Do not defecate in open and do not spit here and there.
 - Take a bath daily and wear clean clothes.
 - Cover your mouth while coughing and sneezing.
- (e) A discomfort or deviation from normal functioning of the body is called disease. Two main types of diseases are communicable and non-communicable diseases.
- (f) Difference between communicable and non-communicable diseases :

Communicable disease	Non communicable disease
<ul style="list-style-type: none"> • Always caused by germs • Spread from patient to healthy person • Some diseases can be prevented by vaccines such as : Typhoid, Malaria 	<ul style="list-style-type: none"> • These disease are not caused by germs • They do not spread from one person to the other • Non communicable diseases cannot be prevented by vaccine such as : Diabetes, Goitre

3. The Amazing World of Animals

1. State whether the following statements are true or false :

- (a) False (b) True
(c) True (d) False
(e) True

2. Fill in the blanks :

- (a) Scales (b) flippers
(c) Reptiles (d) shell
(e) gills

3. Give two examples each for the following :

- (i) Carnivorous animals – Lion, Tiger
(ii) Animals having fur – Polar bear, sheep (all mammals)
(iii) Animal which have flippers – Whales, dolphins
(iv) Animals which have webbed feet – Frogs, Ducks

4. Give one word Answer :

- (a) Desert (b) Omnivores
(c) Gills (d) Camouflage
(e) River

5. Answer the following questions :

- (a) The living or dwelling place of an organism is called its habitats. Habitat provides all the things to the organisms essential for their survival and reproduction.
- (b) Special features of organisms which enable them to live in a particular type of environment are called their adaptations. For example—presence of gills is an adaptation of a fish, presence of wings is an adaptation of a bird.
- (c) Adaptations of a fish
 - Streamlined body covered with protective scales
 - Presence of fins for swimming
 - Presence of gills for breathing
- (d) Breathing organs of different animals
 - Earth worm – moist skin,
 - Frog – moist skin and lungs
 - Insects – holes on body
 - Mammals – Lungs
- (e) Presence of hair or fur on body is a characteristic feature of all mammals. The body covering of a bird is different from mammals. The body of a bird remains covered with feathers.

4. Our Muscles and Bones

1. State whether the following statements are true or false :

- (a) False
- (b) False
- (c) True
- (d) False
- (e) True

2. Match the Columns :

- (a) → (iv), (b) → (v), (c) → (i), (d) → (ii), (e) → (iii).

3. Fill in the blanks :

- (a) 206
- (b) Joint
- (c) Cartilage
- (d) Skeleton
- (e) Striated/Skeletal

4. Give one word answer :

- (a) Heart
- (b) Skeleton
- (c) Skull
- (d) back bone or vertebral column

5. Answer the following questions :

- (a)
 - Voluntary or Smooth muscles
 - Involuntary or smooth muscles
 - Cardiac muscles

(b) Functions of Skeleton :

- It forms a framework of bones that gives support to our body.
 - It gives proper shape to our body.
 - It allows movement of different parts of the body and enable us to walk.
 - Skeleton protects several vital organs. Ribcage protects heart and lungs. Skull protects brain.
 - In some long bones blood all are produced.
 - Skeleton serves as bank of calcium.
- (c) (i) Smooth or involuntary muscles.
(ii) Striated or voluntary muscles.
(iii) Cardiac muscles.
- (d) **Rib-Cage :** Rib cage is a cage like structure of bones that protects heart and lungs. It has back bone on the back side, the breast bone in the front side and 12 pairs of ribs on the lateral side.
- (e) **Joint :** A joint is a place where two or more bones meet.
Ball and socket joint : Ball and socket joint is a movable joint that allows movement in many directions. In this joint the head of a bone rotates in a cavity formed by another bone. Due to the presence of this joint, our arm can be rotated in a full circle. Examples—shoulder joint, hip joint.
- (f) Bone and cartilage both provide support, but bones are rigid structure while cartilage are flexible. Cartilage is found in external ears, nose tip etc.

5.

Our Nervous system

1. State whether the following statements are true or false :

- (a) True (b) False
(c) True (d) False
(e) True

2. Match the columns :

- (a) → (iv), (b) → (iii), (c) → (i), (d) → (ii).

3. Fill in the blanks :

- (a) Motor (b) brain/spinal cord
(c) pupil (d) reflex action

4. Give one word answer for the following :

- (a) cerebrum (b) spinal cord
(c) retina (d) inner ear

5. Answer the following Question :

- (a) Functions of Nervous system
- Nervous system controls and coordinates the activities of all other systems of the body.

- Our nervous system makes us aware about what is happening in our body and around us.
- (b) The three main parts of nervous system are – Brain, Spinal cord and nerves.
- (c) The quick automatic response of the body to an event is known as a reflex action. Thinking part of brain is not involved in reflex actions.
Example : When we accidentally touch a hot object we pull our hands quickly.
- (d) **Human Eye :** The eyes are sense organs of sight. Our eyes are like a camera. The light reflected by an object enters our eyes. It passes through a lens and makes an image of the object on retina. Retina is an inner part of the eye.
 A nerve takes the message of image to our brain. The brain helps us to know what we are seeing. The amount of light entering our eyes is controlled by the size of pupil.
- (e) Three main parts of human brain are : cerebrum, cerebellum, and brainstem having medulla. The medulla part of the brain is connected to the spinal cord.

6. Safety and First Aid

1. State whether the following statements are true or false :

- | | |
|-----------|-----------|
| (a) False | (b) False |
| (c) True | (d) True |
| (e) True | |

2. Match the columns :

- (a) → (iii), (b) → (iv), (c) → (i), (d) → (ii).

3. Fill in the blanks :

- | | |
|-------------------------|-------------|
| (a) Pedestrian crossing | (b) traffic |
| (c) Safety | (d) Helmet |

4. (b) School ahead.

5. Answer the following question :

- (a) The immediate help given to an injured person or victim of an accident before he/she is treated by a doctor, is called first aid.
- (b) **Road safety rules**
- Keep left.
 - Use foot path if you are not using any vehicle.
 - Wearing of helmet is mandatory for all two wheeler riders.
- (c) We should not touch any unclaimed object at public place because there may be an explosive (bomb) in it.
- (d) **Main causes of fire are**
- Short circuit of electricity or electrical faults.
 - Gas leakage in kitchen.

- Carelessness (carrying kerosene, gas cylinder in public transport and careless handling of match box).
- (e) Please see book (given in book).
- (f) **Prevention of fire :**
- Keep electrical wiring, appliances perfectly fit.
 - Take precautions while bursting fire crackers.
 - Be alert and careful while using matchbox or dealing or with fire related things like-stove.

7. Solid, Liquid and Gases

1. State whether the following statements are true or false :

- | | |
|-----------|----------|
| (a) False | (b) True |
| (c) False | (d) True |
| (e) True | |

2. Select the correct option :

- | | |
|-----------------------------------|----------------|
| (a) (iii) Condensation, | (b) (i) Expand |
| (c) (ii) Evaporation and boiling, | (d) (iii) gas |
| (e) (iv) both liquid and gas. | |

3. Fill in the blanks :

- | | |
|---------------|---------------|
| (a) melting | (b) heated |
| (c) particles | (d) expansion |
| (e) cooled | |

4. Answer the following questions :

- (a) Solid, liquid and gas.
- (b) Conversion of a liquid into its gaseous form on heating is called evaporation. The particles of a liquid move faster and away from each other on heating. When they move far apart they escape in the form of a gas.
- (c) Melting : The process of changing a solid into liquid on heating is known as melting.
- (d) Difference between solid, liquid and gas.

Solid	Liquid	Gas
<ul style="list-style-type: none"> • Solids have a fixed shape • Volume is also fixed 	<ul style="list-style-type: none"> • Shape of liquids is not fixed. They take the shape of the container • volume is fixed 	<ul style="list-style-type: none"> • Neither shape nor volume is fixed

- (e) Please see the diagram given in the book
- (f) **Expansion and contraction :** The increase in the size of matter on heating is called expansion. All solids, liquids and gases expand on heating.

Substances expand on heating because their particles start moving rapidly and occupy more space.

The decrease in the size of matter on cooling is called contraction. On cooling the particles of a substance come closer to each other and thus take up less space. Due to this reason substances contract on cooling.

8. Rocks and Minerals

1. State whether the following statements are the true or false :

- | | |
|-----------|-----------|
| (a) True | (b) False |
| (c) True | (d) True |
| (e) False | |

2. Select the correct option :

- | | |
|----------------------|--------------------------|
| (a) (iii) Sand stone | (b) (i) Metamorphic rock |
| (c) (iv) Pumice | (d) (iv) All of these |

3. Match the columns :

- (a) → (iii), (b) → (iv), (c) → (i), (d) → (ii).

4. Fill in the blanks :

- | | |
|-------------|---------------|
| (a) igneous | (b) mineral |
| (c) shale | (d) sandstone |
| (e) magma | |

5. Answer the following questions :

- (a) **Rock**—A rock is a solid made up of different types of substances (minerals). The surface of the earth is made up of many different types of rocks. Three types of rocks are – Igneous rocks, sedimentary rocks and metamorphic rocks.
- (b) **Metamorphic Rocks**—Metamorphic rocks are formed from igneous, sedimentary or existing metamorphic rocks by changing in form. This change is caused by heat and pressure etc.
- (c) Rocks which are commonly used for construction purpose are marble, granite, sand stone, lime stone
- (d) **Uses of Minerals :**
- Used as gemstones (precious/semi-precious).
 - Metallic minerals such as : iron, aluminum, copper etc., are used for various purposes.
 - Diamond is used in jewellery.
 - Sand is used in construction work.
- (e) Molten rocks present beneath the earth surface is called magma. When magma comes out on the earth surface during volcanic eruption, it is called Lava.

9.

Soil

1. State whether the following statements are true or false :

- | | |
|-----------|-----------|
| (a) True | (b) False |
| (c) False | (d) True |
| (e) True | |

2. Select the correct option :

- | | |
|-----------------------|----------------------|
| (a) (iv) all of these | (b) (iii) topsoil |
| (c) (ii) weathering | (d) (iv) sand + clay |

3. Fill in the blanks :

- | | |
|-----------------|-----------------------|
| (a) Soil | (b) Mineral particles |
| (c) Contraction | (d) soil erosion |

4. Match the columns :

- (a) → (iii), (b) → (iv), (c) → (i), (d) → (ii).

5. Answer the following questions :

- (a) The upper most fertile layer of the earth crust that supports the growth of the plants is called soil.
The soil supports the growth of plants from which we get our food therefore it is one of the most important natural resources.
- (b) Components of soil
Mineral particles, organic matter (humus), soil air, soil water and living organisms.
- (c) Please see diagram given in book.
Growth of small plant is supported by topsoil.
- (d) The process of removal or loss of top fertile layer of soil due to stormy wind or water is called soil erosion.
- (e) Plants help in checking soil erosion in various ways :
- Roots of plants bind with soil particles tightly. They do not allow the soil particles to move away by wind or water.
 - The leaves of trees reduce the speed of rain water with which it strikes the soil particles. The rain water first strikes the leaves and then falls to ground. When trees are cut the rain water directly hits the soil particles. Due to this the particles are carried away easily by wind or water.
- (f) **Soil Conversation :** The process of protecting the soil from soil erosion is called soil conservation.

10.

Measurement

1. State whether the following statements are true or false :

- | | |
|-----------|-----------|
| (a) False | (b) False |
| (c) False | (d) True |
| (e) False | |

2. Select the correct option :

- | | |
|--------------------|----------------------------|
| (a) (ii) Kilolitre | (b) (iv) Both (i) and (ii) |
| (c) (ii) litre | (d) (i) 10 millimetre |

3. Match the columns :

- (a) → (ii), (b) → (iii), (c) → (iv), (d) → (i).

4. Fill in the blanks :

- | | |
|--------------|--------------|
| (a) Length | (b) Kilogram |
| (c) Capacity | (d) Celsius |
| (e) Second | |

5. Answer the following questions :

- (a) The act of finding out the size, length or amount of something is called measurement.
- (b) Hand span, cubit, stride
- (c) Length — Meter,
 Temperature — Second,
 Mass — Kilogram
- Length is measured by ruler and measuring tape.
 Temperature is measured by thermometer.
 Mass is measured by weighing machine (weighing scale) or beam balance.
- (d) **Capacity :** Capacity refers to the amount of substance like a liquid that a container can hold. It is measured by using a measuring can, Standard unit to measure capacity is litre.
- (e) (a) There are 1000 metres in a kilometre.
 (b) In an hour there are $60 \times 60 = 3600$ seconds.
 (c) There are 1000 millilitres in a litre.

11.

Force, Work and Energy

1. State whether the following statements are true or false :

- | | |
|-----------|-----------|
| (a) False | (b) True |
| (c) True | (d) False |
| (e) True | |

2. Select the correct option :

- (a) (iii) A crow bar
 (b) (iv) all of these
 (c) (iii) Wheel and axle
 (d) (ii) Chemical energy
 (e) (iii) Energy

3. Match the columns :

- (a) → (iii), (b) → (iv), (c) → (i), (d) → (ii).

4. Fill in the blanks :

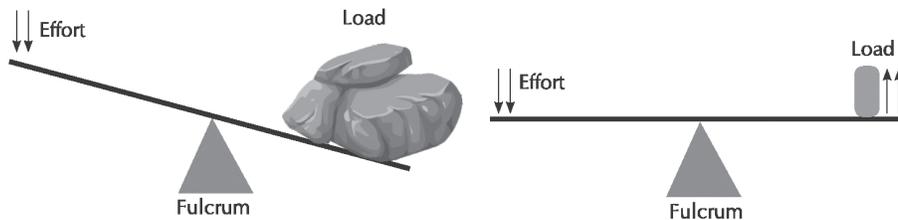
- (a) destroyed
 (b) pulley
 (c) wedge
 (d) push
 (e) energy

5. Answer the following questions :

- (a) A push or pull working on an object is called a force. Three effects of force are :

- It can make a stationary object move
- It can stop a moving object
- It can change shape or size of an object

- (b) **Lever** : A lever is a simple machine that consists of a rigid rod which rotates around a fixed point called fulcrum.



- (c) **Energy** : The capacity to do work is called energy.

Example : Forms of energy – Potential energy, Kinetic energy, Chemical energy, Electrical energy.

- (d) **Work** : A work is said to be done when a force acting on an object moves it across a distance in the direction of the force.

While pushing a wall, a person applies force but it is said that he is not doing any work. For work the displacement of object is essential.

- (e) **Pulley** : A pulley is a simple machine that consists of a grooved wheel and a rope fitted in the groove. A simple pulley is used to lift water from a well using a bucket.

Wedge : Two inclined planes meeting at a sharp edge form a wedge. It is used to split things like axes.

- (f) Example of Inclined plane : Ramp, Slide.

Example of wheel and axle : Screw driver, bicycle.

12.

Air and Water

1. State whether the following statements are true or false :

- | | |
|-----------|----------|
| (a) True | (b) True |
| (c) False | (d) True |
| (e) False | |

2. Select the correct option :

- | | |
|----------------------------|------------------|
| (a) (iv) Both (i) and (ii) | (b) (ii) 21% |
| (c) (iv) all of these | (d) (iii) oxygen |

3. Fill in the blanks :

- | | |
|----------------|---------------|
| (a) atmosphere | (b) germs |
| (c) insoluble | (d) condenser |
| (e) boiling | |

4. Name the following :

- | | |
|---------------------|------------------------|
| (a) Chlorine tablet | (b) Atmosphere |
| (c) Boiling | (d) Soluble impurities |
| (e) Carbon dioxide | |

5. Answer the following :

- (a) The Earth is surrounded from all sides by an envelope of air. This envelope or blanket of air is called atmosphere.
- (b) Roles played by atmosphere in maintaining life on earth :
- The atmosphere helps in maintaining right average temperature of the Earth. This temperature is essential for survival of living organism on the earth.
 - The ozone layer of atmosphere protects us from harmful UV radiation of the Sun.
 - Atmosphere is a source of oxygen which is needed by all living organisms for breathing.
- (c) Gases present in atmosphere are
- | | |
|------------------|-----------------------------------|
| • Nitrogen | • Oxygen |
| • Carbon dioxide | • Ozone, water vapour, Argon etc. |
- (d) Properties of air
- | | |
|-----------------------|------------------|
| • It occupies space | • Air has weight |
| • Air exerts pressure | |
- (e) Removal of insoluble impurities of water by filtration – insoluble impurities of water can be removed by filtration.

A filter paper is folded in a characteristic manner to fit into a funnel. Now the funnel is connected to a clamp stand and a flask is kept below the funnel. The impure water is poured through the funnel. As insoluble impurities are made up of larger particles and it is left behind on filter paper.

(See the Fig. on Page No. 103 in the book)

The insoluble impurities do not pass through filter paper, so clean water is collected in the flask.

- (f) **Distillation** : In distillation process, the water evaporated is not allowed to be wasted. The vapours are made to condense to form liquid water that is collected.
- Impure water is taken in a round bottom flask and heated.
 - The water vapour produced is collected and cooled in a condenser part to become clean water.
 - The clean water is collected in another flask.
- (See the fig. in book in page 104)

13.

Natural Disasters

1. State whether the following statements are true or false :

- (a) False (b) True
(c) True (d) False

2. Match the columns :

- (a) → (iv), (b) → (iii), (c) → (i), (d) → (ii).

3. Fill in the blanks :

- (a) man (b) earthquake
(c) floods (d) seismograph
(e) natural.

4. Complete the following words :

- (a) FLOOD (b) CYCLONE
(c) EARTHQUAKE

5. Answer the following question :

- (a) **Earthquake** : An earthquake is a natural disaster. It takes place when huge masses of rocks move beneath the Earth's surface. This movement causes the ground to shake.
- (b) Floods occur due to overflowing of a river.
- Very heavy rains along with strong winds like tsunami cause the sea to form huge wave. This may lead to flooding of the nearby areas.
 - Flood can also occur if a dam is broken.
- (c) Safety measures at the time of flood
- Listen to warning issued by the government.
 - Keep readymade eatables with you at safe place.
 - Do not play with water.
 - Use boiled water for drinking and switch off electrical appliances.
 - Always keep a first aid kit ready.

- In a polythene bag, always keep a torch, match box, candle and milk powder.
- (d) Damage caused by an earthquake
 - Several buildings, bridges and houses collapse
 - Many people die, get injured and become homeless.
 - Landslide occur in hilly area. In coastal areas it may be associated with tsunami or sudden flood.
 - Power supply, communication and transport facilities are disrupted.

14. Light and Shadows

1. State whether the following statements are true or false :

- | | |
|-----------|----------|
| (a) False | (b) true |
| (c) False | (d) True |
| (e) False | |

2. Fill in the blanks :

- | | |
|--------------|-----------------|
| (a) straight | (b) noon |
| (c) opaque | (d) transparent |
| (d) luminous | |

3. Name the following :

- | | |
|----------------------|--------------------------|
| (a) Shadow | (b) Non luminous objects |
| (c) Translucent | (d) The Sun |
| (e) Luminous objects | |

4. Answer the following questions :

- (a) **Luminous objects** : objects that give off us light are called luminous object like the Sun, electric bulbs etc.

Non Luminous Objects : Objects that do not give off us light are called non luminous object like-table, chair etc.

- (b) **Opaque objects** : Objects that do not allow light to pass through them are called opaque objects. As they block the path of light, they form shadow. A book, wood, metals etc.

- (c) Transparent objects allow the light to pass through them completely. Therefore we can see across them like-clean glass, clean plastic etc.

Translucent object, on the other hand, allow only some light to pass across them. Therefore we cannot see clearly through them, like. Greasy paper, bathroom glass etc.

- (d) **Shadow** : The dark area formed when the path of light is blocked by an opaque object is called a shadow.

Preparation of shadow : The shadow is always formed on the side opposite to the source of light.

The colour of shadow does not depend on the colour of opaque object. It is always black.

- (e) Please see figure given in the book.

15.

Earth, Sun and Moon

1. State whether the following statements are true or false :

- (a) True (b) False
(c) True (d) True
(e) True

2. Fill in the blanks :

- (a) Saturn (b) Moon
(c) Sun (d) Solar
(e) Craters

3. Name the following :

- (a) Moon (b) Earth crust or crust
(c) The Sun (d) New Moon
(e) Neil Armstrong

4. Match the columns :

- (a) → (iii), (b) → (i), (c) → (iv), (d) → (ii).

5. Answer the following questions :

- (i) Three layers of the earth are earth crust, mantle and core.
(ii) Nearly two third of our earth is covered with water and it appears blue from outer space, so it is called blue planet.

Normal average temperature, presence of atmosphere and water make life possible on the earth.

- (iii) **Eclipse :** Eclipses are simply based on the principle of shadow formation. Eclipse occurs when one celestial object moves into the shadow of another.

An eclipse occurs when the sun, earth and moon come in a straight line

Two eclipse seen from earth are - Lunar eclipse, solar eclipse.

- (iv) For diagram, see diagram of solar and lunar eclipse given in the book.

- (v) **Phases of the Moon :** The changing shapes of the moon that are visible to us during night are called the phases of moon. Actually only that part of the moon is visible to us which receives sun light and reflects it back. Therefore it does not appear on new moon day. Later it appears crescent shape, then half and finally become fully visible on full moon day. These phases are repeated in a month.