

# Answers

## Chapter 1

### MULTIPLE CHOICE QUESTIONS

1. b                      2. c                      3. b                      4. a  
5. d                      6. d

### VERY SHORT ANSWER QUESTIONS

7. (a) NECTAR                      (b) ARNIVORES  
(c) HERBIVORES                      (d) OMNIVORES
8. Boiling kills the seeds.
9. In beehives.
10. (i) Salt from sea water/rocks  
(ii) Water from river/well/tap/pond/tubewell/rain
11. (a) CHILLI;                      (b) FRUIT;                      (c) SOYABEAN;  
(d) SUGAR;                      (e) GROUNDNUT

### SHORT ANSWER QUESTIONS

12.

T	A	C	O	W	O	L	F
T	A	R	W	X	G	O	R
N	N	O	L	I	O	N	O
E	T	W	Q	L	A	N	G
H	U	M	A	N	T	W	O

Herbivore: COW, GOAT, HEN

Carnivore: WOLF, LION, FROG

Omnivore: CAT, RAT, CROW, HUMAN, ANT, OWL

13. a- Flower: b- Bud: c- Leaf: d-Stem
14. **Hint:** Enough food is not available for all of us/Food is very costly and poor people cannot afford to buy/Any other reason.
15. Food gives energy to do work/to grow/to repair damaged parts, to protect the body against diseases.(any two)
16. a-(iii), b-(i), c-(iv), d-(v), e-(ii)

### LONG ANSWER QUESTIONS

17. Eagle- birds/small animals/ meat/ others- Omnivore  
 Crocodile- fish/snake/animals living near the river banks of river- Carnivore  
 Elephant- grass/sugarcane/leaves/coconut/others- Herbivore  
 Crow- food grains/rat/meat/food items/insects- Omnivore  
 Lion- deer/rabbit/zebra/giraffe/cow/others- Carnivore
18. Any four correct answer.  
 Lion → goat, Lizard → insects, spider, Rat → grains; Snake → Rat, Goat → grain/grass, Spider → insects

19. **Hint:**
- | Food item | Ingredients                       |
|-----------|-----------------------------------|
| Dal       | Pulses, water, salt, oil, spices. |
| Idli      | Rice, urad dal, salt, water.      |

Any other item can be given as the answer.

## Chapter 2

### MULTIPLE CHOICE QUESTIONS

1. d                      2. d                      3. b                      4. c  
5. c                      6. b

### VERY SHORT ANSWER QUESTIONS

7. (a) protein            (b) minerals            (c) vitamins  
(d) carbohydrate (e) nutrients            (f) fat  
8. Water

### SHORT ANSWER QUESTIONS

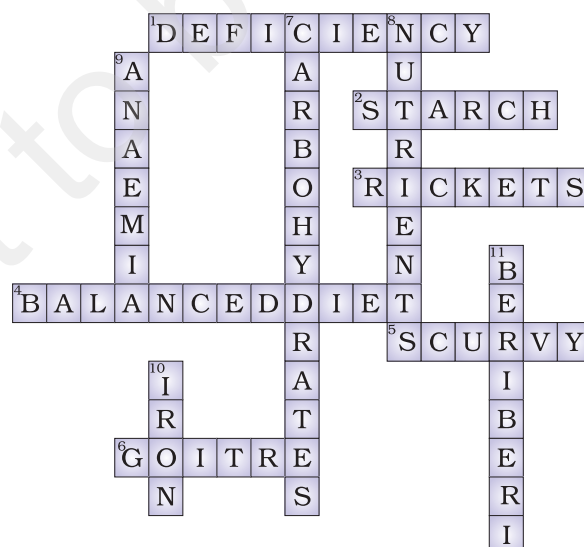
9. (a) fat, protein; (b) balanced diet; (c) obesity; (d) roughage;  
(e) Vitamin C
10. A- sweet potato, rice, maize, white bread.  
B- moong dal, fish, milk, egg, beans, butter milk, cottage cheese,  
peas.  
C- mustard oil, milk, egg, butter.
11. Potato chips are tasty but they are not very nutritious.  
Boiled vegetables are very nutritious but they may not be tasty.
12. The saree of Paheli's teacher might have been starched, and starch turns blue black with iodine solution. Paheli's socks did not have starch on it thereby showing no change.
13. Wash, peel, cut and cook the potatoes. Cooking in a small amount of water and then frying in a small quantity of oil conserves the nutrients.

14. Paheli must include whole grains, whole pulses, fresh fruits and vegetables in her diet as she seems to lack roughage.
15. (a) Components of food that provide nutrients are carbohydrates, proteins, fats, vitamins and minerals.  
(b) Components of food that do not provide nutrients are water and roughage/dietary fibres.
16. Vitamins and minerals are very important because they help in  
(a) protecting our body against diseases.  
(b) growth.  
(c) maintaining good health.
17. Water helps our body to absorb nutrients from food and also helps in removing wastes such as urine and sweat.

### LONG ANSWER QUESTIONS

18. (a) Night blindness                      (b) Vitamin A  
(c) Carrot, papaya, mango, milk and fish oil or any other (any four)

19.



20. (a) Chapati  
(b) Calcium; Vitamin D  
(c) Butter  
(d) Protein; Calcium  
(e) Papaya  
(f) Iron  
(g) Peas; Proteins
21. A snakes and ladders board-game prepared by children.

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## Chapter 3

### MULTIPLE CHOICE QUESTIONS

- |      |       |       |      |
|------|-------|-------|------|
| 1. a | 2. b  | 3. d  | 4. c |
| 5. c | 6. c  | 7. b  | 8. c |
| 9. b | 10. b | 11. c |      |

### VERY SHORT ANSWER QUESTIONS

12. Yarn, fibres.
13. (a) cotton (b) spinning  
(c) weaving (d) fibres
14. (a) False (b) False  
(c) True (d) True
- Correct statements**
- (a) Silk is an animal fibre.  
(b) Jute is obtained from the stem of a plant.
15. Classify the following fibres as natural and synthetic.

Polyester, Jute, Silk, Nylon, Cotton, Wool

16. Cotton fabric does not shrink but silk fabric shrinks on burning.
17. Knitting.

### SHORT ANSWER QUESTIONS

18. The end of the thread was separated into a few thin strands or the thread was quite thick.
19. Saree, dhoti, lungi, turban, dupatta, towel, etc.

20. (a) – (ii), (b) – (iii), (c) – (i), (d) – (iv)
21. black, warm, cotton bolls, ginning, spinning, dyed, woven
22. a – (v), b – (i), c – (vi), d – (ii), e – (iii), f – (iv)
23. Fabric, jewellery, hand-bag, carpet, mattress, gunny bag, cap or any other.

### LONG ANSWER QUESTIONS

24. **Hint:** Cotton bolls → Cotton yarn → Cotton fabric  
→ Cotton shirt
25. **Hint:** Describe weaving and knitting.

## Chapter 4

### MULTIPLE CHOICE QUESTIONS

- |      |       |       |      |
|------|-------|-------|------|
| 1. b | 2. c  | 3. c  | 4. c |
| 5. c | 6. b  | 7. d  | 8. c |
| 9. c | 10. d | 11. a |      |

### VERY SHORT ANSWER QUESTIONS

12. The silver spoon on long exposure to moist air has lost its shine and appears dull whereas gold does not tarnish.
13. Raveena has got a solution because honey will dissolve in water.
14. **Hint:** Yes, Ground glass is translucent, so Shikha can be located.
15. Cotton ball initially floats and then sinks as it absorbs water.

### SHORT ANSWER QUESTIONS

16. Rubber band, leaf, eraser, cooked rice and fresh chapati are soft materials because they can be compressed or scratched easily.
17. **Soluble**
- (i) honey in water      (ii) glucose in water
- (iii) groundnut oil in mustard oil
- Insoluble**
- (i) turmeric in water      (ii) rice flour in water
- (iii) mustard oil in water
18. **Hint:**



Name of the material	Appearance Hard/Soft	Transparency (Transparent/Translucent/Opaque)	Floats/Sinks in water	Soluble/ Insoluble in water
Lump of salt	Hard	Opaque	Sinks	Soluble
Green grass	Soft	Opaque	Floats	Insoluble

19. (a) aluminium – foil, aircrafts, etc.  
 (b) plastic – bucket, pencil box, etc.  
 (c) kerosene – fuel, solvent, etc.  
 (d) vinegar – food ingredient, preservative, etc.
20. a- (iii)                      b- (iv)                      c- (i)                      d- (ii)
- 21.

O	S	T	P	L	E
A	T	L	E	E	R
C	O	I	N	A	A
O	N	K	C	F	S
A	E	E	I	W	E
L	L	Y	L	R	R

The answer may include other items as well.

### LONG ANSWER QUESTIONS

22. **Hint:** Write on the basis of lustre, hardness, softness, roughness or smoothness.
23. **Hint:** Dissolved oxygen is available for animal and plants for respiration and survival.

24. **Hint:** Objects cannot be seen through opaque materials.

Example: Cardboard.

Objects cannot be seen clearly through translucent materials.

Example: Oiled paper.

Objects can be seen clearly through transparent materials.

Example: Hand lens

25. Soluble in water – Sugar, Salt, Honey, Copper sulphate crystals, Glucose

Insoluble in water – Mustard oil, Sand, Sawdust, Chalk powder, Soil, Petals of flower, Wheat flour

## Chapter 5

### MULTIPLE CHOICE QUESTIONS

- |      |       |      |      |
|------|-------|------|------|
| 1. d | 2. c  | 3. b | 4. d |
| 5. d | 6. b  | 7. b | 8. b |
| 9. c | 10. d |      |      |

### VERY SHORT ANSWER QUESTIONS

11. **Hint:** Milk at higher temperature would dissolve more sugar so Ravi would win the game.
12. (i) hand picking; (ii) grains; (iii) sieving; (iv) sedimentation; (v) solid, liquid.
13. (a) False            (b) True  
(c) True            (d) True  
(e) True            (f) True

### SHORT ANSWER QUESTIONS

14. **Hint:** Winnowing. This method is based on the principle that the lighter particles are carried away by the wind.
15. (a) – (iii)            (b) – (iv)  
(c) – (v)            (d) – (ii)  
(e) – (i)

### LONG ANSWER QUESTIONS

16. **Hint:**
- (a) They will mix salt with water to make salt solution.
- (b) Mohan's solution would be saturated because in Mohan's

case some salt would remain undissolved and settle at the bottom of the glass.

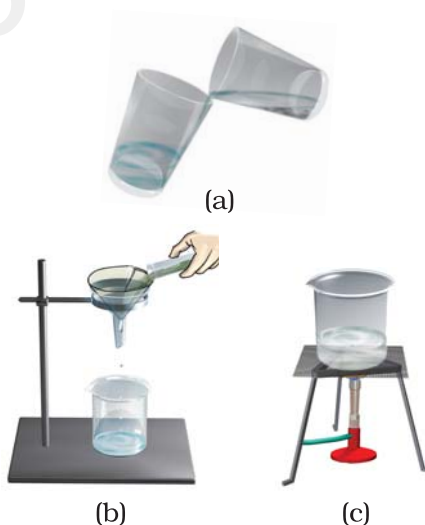
17. **Hint:**

- (i) Filtration using muslin cloth.
- (ii) Swirl with alum and leave water undisturbed for some time.
- (iii) Decantation.
- (iv) Boil for 10 minutes in covered pan.
- (v) Cool, filter and now it is fit for drinking.

18. (i) happy  
(ii) Sun  
(iii) threshed  
(iv) winnowed  
(v) handpicked  
(vi) sieved

They got a good price as they used appropriate methods of separation to get good quality of flour.

19. **Hint:**



- (a) Decantation – to separate oil

- (b) Filtration – to separate sand
- (c) Evaporation – to separate salt

20. **Hint:**

- (a) Iron nails – hand picking/magnet
- (b) Oil – decantation
- (c) Salt, water – evaporation and condensation

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## Chapter 6

### MULTIPLE CHOICE QUESTIONS

1. b                      2. a                      3. d                      4. d  
5. d                      6. c                      7. d

### VERY SHORT ANSWER QUESTIONS

8. Melting of wax in (c), which on cooling changes back to solid wax.  
9. The changes that can be reversed (reversible).  
10. Expansion of metal cap on heating.

### SHORT ANSWER QUESTIONS

11. (a) Yes, condensation                      (b) Yes, evaporation  
(c) Yes, freezing                              (d) Not possible  
12. (d), (f) and (g)  
13. Boojho will not be successful, because making of toy from Plaster of Paris (POP) is a change that cannot be reversed.  
14. We do get the paper on paper recycling but it is not the same original paper that we get. The colour and texture of the paper changes.

### LONG ANSWER QUESTIONS

15. (a) Heating of an iron rod.  
(b) Baking of chapati.  
(c) Formation of ice from water.

- (d) Formation of salt solution.
- (e) Mixing of cement and water.
16. **Hint:** Different kinds; former can be reversed while the later cannot be reversed.
17. (i) Melting of wax (ii) Folding of a paper  
(iii) Knitting of a sweater (iv) Inflating of a tyre
18. (i) Milk into curd (ii) Burning of wood  
(iii) Ripening of fruits (iv) Digestion of food
19. Changes (i), (iii) and (iv) cannot be reversed, change (ii) can be reversed.
20. Activities (i), (iv), (v), (vi) and (vii) can be reversed and rest cannot be reversed.

## Chapter 7

### MULTIPLE CHOICE QUESTIONS

1. a
2. a
3. b
4. d
5. b
6. b

### VERY SHORT ANSWER QUESTIONS

7. a- sepals; b- ovary, ovules; c- filament, anther; d- bud
8. (a) Herb or name of any small plant.  
(b) Root; absorption of water and minerals.

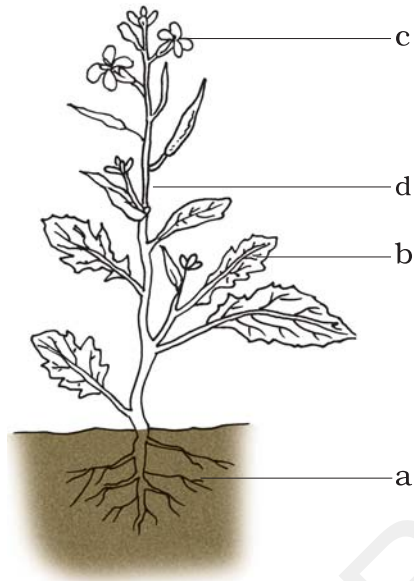
### SHORT ANSWER QUESTIONS

9. a- (iii); b- (ii); c- (iv); d- (v)
10. He did not boil the leaf in spirit to remove the chlorophyll.
11. No, all the starch stored in the leaf would have been used up by the plant. No starch would be synthesised afresh due to non-availability of sunlight.
12. **Hint:** Yes, water and minerals move upwards and food moves downwards.

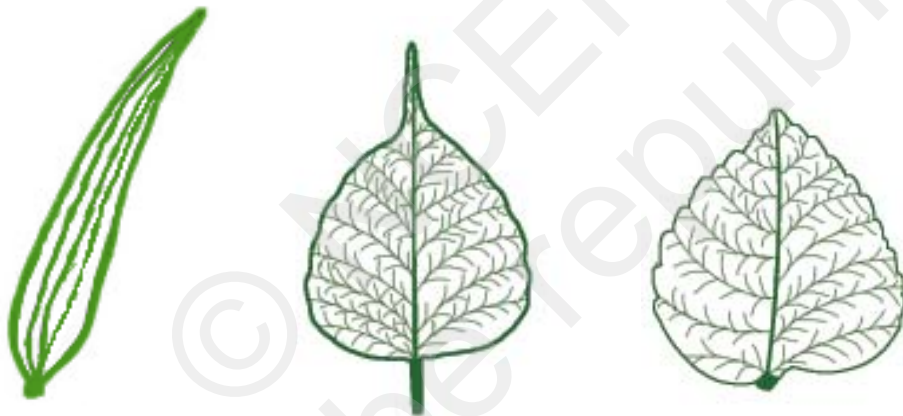
### LONG ANSWER QUESTIONS

13. a- root; b- leaf; c- flower; d- stem

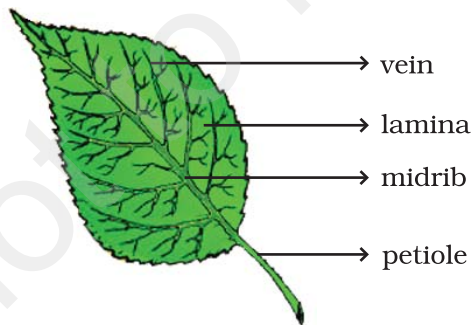




14.



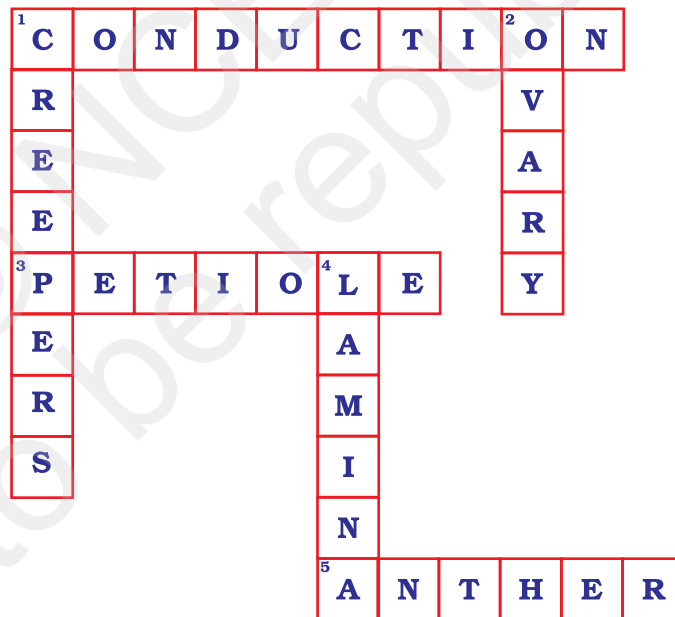
15. (a)



(b) Reticulate venation

(c) Parallel venation

16. (a) Transpiration.  
 (b) On a bright sunny day.  
 (c) Small drops of water inside the polythene cover.  
 (d) The set-up must be airtight/polythene bag must be dry/  
 the twig must be fresh with 10-12 leaves.
17. (a) Wrong- Anther is a part of the stamen.  
 (b) Wrong- The visible parts of a bud are the sepals.  
 (c) Correct.  
 (d) Wrong- Leaves also perform photosynthesis.
- 18.



19. (a)- sepals; (b)- petals; (c)- pistil; (d)- filament; (e)- anther;  
 (f)- male; (g)- pistil; (h)- ovary; (i)- ovules

## Chapter 8

### MULTIPLE CHOICE QUESTIONS

1. a                      2. c                      3. c                      4. a  
5. c                      6. b

### VERY SHORT ANSWER QUESTIONS

7. Hinge joint.  
8. We would not have been able to bend from our waist.  
9. 1. Ball and socket  
2. Bone/s  
3. Upper jaw with skull  
4. Muscles  
5. Rib  
6. Skeleton  
7. Pelvic bones  
8. Pivotal  
9. Cartilage  
10. (a) Ball and Socket joint  
(b) Pivotal joint  
(c) Hinge joint

### SHORT ANSWER QUESTIONS

11. a- (iii) b- (v) c- (iv) d- (ii) e- (i)  
12. (a) Duck                      - flying, walking, swimming

- (b) Horse – running, walking
  - (c) Kangaroo – jumping, walking
  - (d) Snail – creeping
  - (e) Snake – slithering
  - (f) Fish – swimming
  - (g) Human being – walking
  - (h) Cockroach – walking, flying
13. The doctor must have observed a swelling and taken an X-ray of the ankle. X-ray images confirm injuries/fractures in bones.
14. Elbow and knee are not made up of a single bone, but two or more bones which are joined to each other by a joint (Hinge joint). This joint along with the muscles help us to bend the elbow and knee.
15. (a) We would not be able to bend/fold our arms.  
(b) We would be able to rotate our head 360°.
16. An earthworm eats its way through the soil. Its body excretes the undigested materials that makes the soil fertile.

### LONG ANSWER QUESTIONS

17. (a) (i) bones (ii) movement (iii) contraction  
(iv) muscles (v) cartilage (vi) shape  
(vii) internal organs (viii) relaxation
- (b) (i) bones (ii) cartilage (iii) shape  
(iv) movement (v) internal organs (vi) contraction  
(vii) relaxation (viii) muscles

18.
  1. Bones are hollow and light.
  2. Bones of hind limbs are for walking and perching.
  3. Bones of fore limbs are modified as wings.
  4. Shoulder bones are strong.
  5. Breast bones hold flight muscles and are used to move the wings up and down.
19. A snake forms loops in its body while slithering. Each loop of the snake gives it a forward push by pressing against the ground. The snake with a large number of loops moves much faster than the snake with less number of loops. Thus snake "A" will move faster than snake "B".

## Chapter 9

### MULTIPLE CHOICE QUESTIONS

- |       |       |       |       |
|-------|-------|-------|-------|
| 1. d  | 2. d  | 3. a  | 4. d  |
| 5. a  | 6. d  | 7. c  | 8. c  |
| 9. d  | 10. a | 11. d | 12. b |
| 13. a |       |       |       |

### VERY SHORT ANSWER QUESTIONS

14. (a) ADAPTATIONS (b) EXCRETION  
(c) STIMULI (d) REPRODUCTION
15. (a) Grassland (b) Pond  
(c) Mountain (d) Camel
16. Terrestrial habitats – grassland, rice field  
Aquatic habitats – pond, ocean
17. Reproduction leads to the production of more individuals of an organism.
18. (a) abiotic (b) water (c) adaptations (d) terrestrial

### SHORT ANSWER QUESTIONS

19. By planting stem-cutting of the rose plant.
20. As the deeper layers of sand are cooler, they burrow deep into the sand to stay away from heat of the desert during day time.
21. (a) Leaves are narrow and ribbon like.  
(b) Stems/stalks of leaves are long, hollow and light.

22. (a) Long legs  
(b) Webbed feet  
(c) Blow holes
23. These are adaptations to dry conditions. As a result of these modifications the surface of lamina is reduced thereby reducing water loss by transpiration.
24. (a) Long ears to hear movement of predators.  
(b) Eyes on the sides of its head which allow it to look in all directions.
25. (a) Desert plant (b) Aquatic plant  
(c) Mountainous plants (d) Mountainous plant  
(e) Desert plant (f) Aquatic plant

### LONG ANSWER QUESTIONS

26. **Hint:**
1. Living organisms move on their own.
  2. Car moves by the burning of fuels like diesel and petrol.
  3. Car does not show any other living characteristics like respiration, digestion, reproduction, growth.
27. (a) Brown body colour helps it to hide in dry land avoiding detection by its prey.  
(b) Eyes placed in front allow it to know the exact location and movements of its prey.  
(c) Powerful paws and long claws help it to catch and kill the prey.

## Chapter 10

### MULTIPLE CHOICE QUESTIONS

1. (d)            2. (d)            3. (c)            4. (b)  
5. (c)            6. (b)            7. (c)            8. (b)  
9. (d)

### VERY SHORT ANSWER QUESTIONS

10. (i) The motion of a swing is an example of periodic motion.  
or  
The motion of a swing is not an example of rectilinear motion.
- (ii) 1m = 100 cm
11. (i) circular  
(ii) periodic  
(iii) straight; along  
(iv) metre
12. (i) An object moving on a straight road, falling stone, etc.  
(ii) A mark on blades of a rotating fan, tips of the hands of a clock, etc.  
(iii) Motion of a child on a swing, motion of pendulum, strings of a guitar, etc.  
(iv) Blades of a rotating fan, hands of a clock, etc.

### SHORT ANSWER QUESTIONS

13. The length can be measured using a thread which can be further measured with the help of a scale.







































