

1. Fill in the blanks:

- (a) Cleaning of water is a process of removing _____.
- (b) Wastewater released by houses is called _____.
- (c) Dried _____ is used as manure.
- (d) Drains get blocked by _____ and _____.

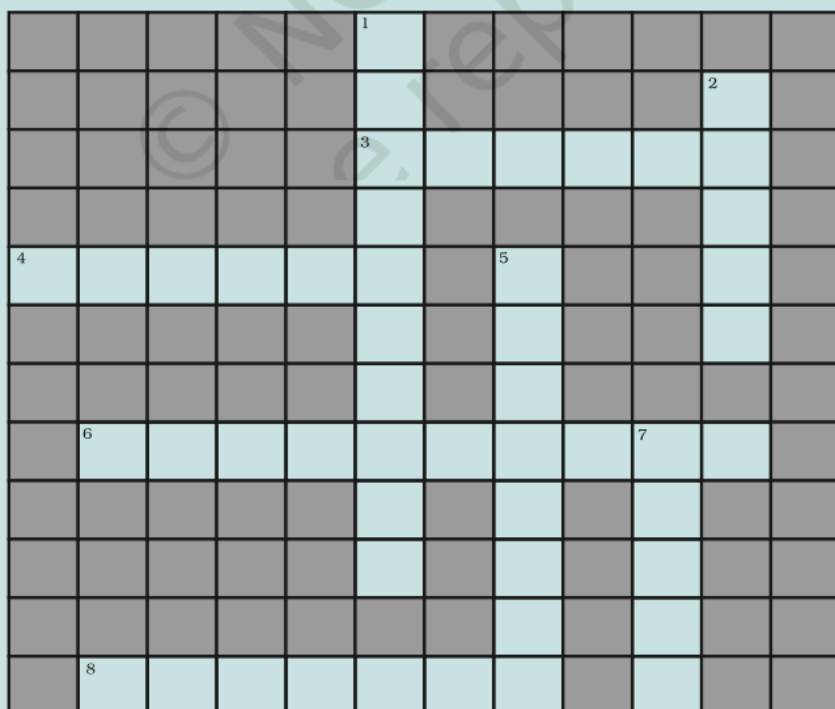
2. What is sewage? Explain why it is harmful to discharge untreated sewage into rivers or seas.

3. Why should oils and fats be not released in the drain? Explain.

4. Describe the steps involved in getting clarified water from wastewater.

5. What is sludge? Explain how it is treated.

11. Here is a crossword puzzle: Good luck!



Rationalised 2023-24

Across

3. Liquid waste products
4. Solid waste extracted in sewage treatment
6. A word related to hygiene
8. Waste matter discharged from human body

Down

1. Used water
2. A pipe carrying sewage
5. Micro-organisms which causes cholera
7. A chemical to disinfect water

7. Fill in the blanks:

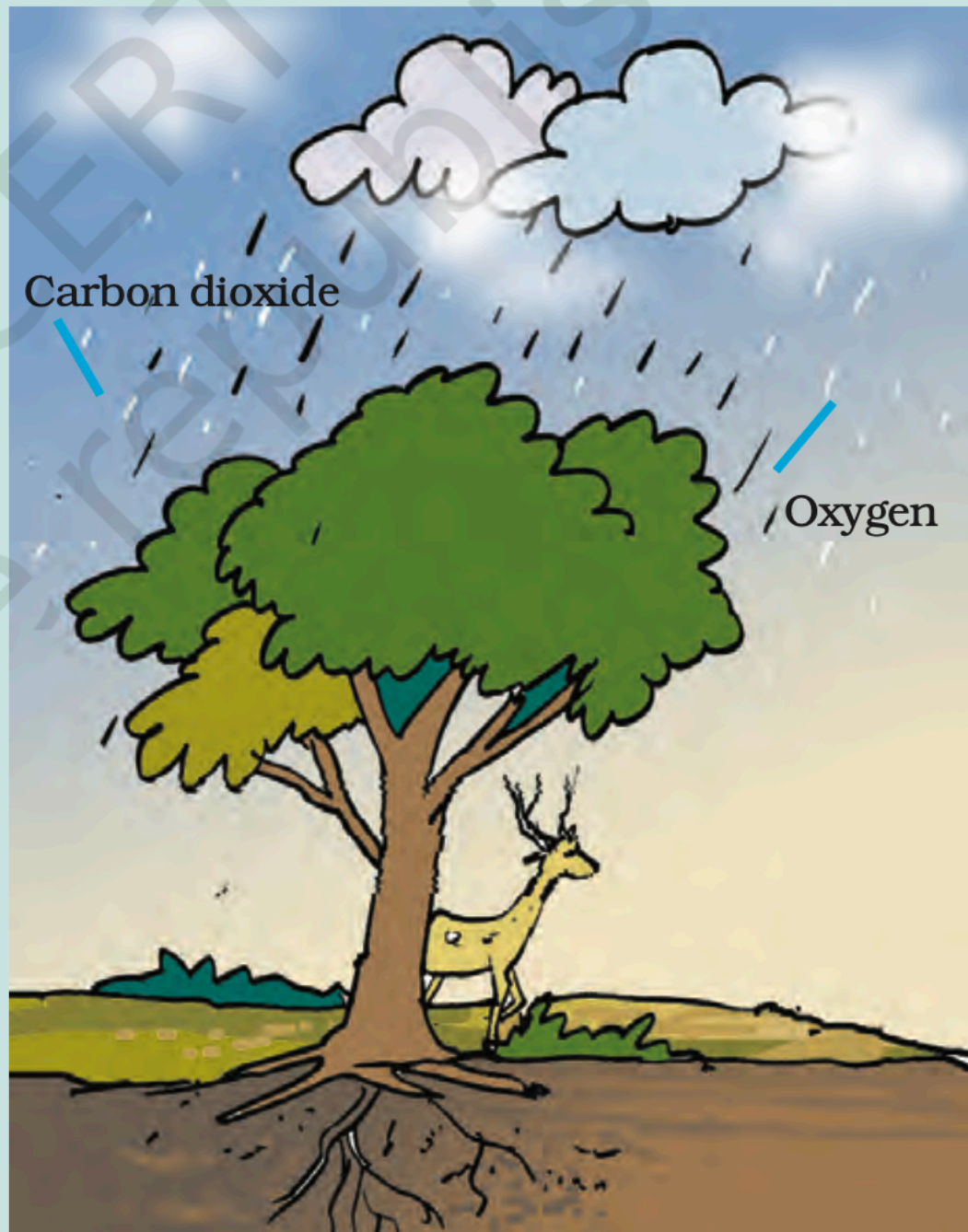
- (a) The insects, butterflies, honeybees and birds help flowering plants in_____.
- (b) A forest is a purifier of_____ and _____.
- (c) Herbs form the _____ layer in the forest.
- (d) The decaying leaves and animal droppings in a forest enrich the _____.

11. Which of the following is not a forest product?

- (i) Gum
- (ii) Plywood
- (iii) Sealing wax
- (iv) Kerosene

12. Which of the following statements is not correct?

- (i) Forests protect the soil from erosion.
- (ii) Plants and animals in a forest are not dependent on one another.
- (iii) Forests influence the climate and water cycle.
- (iv) Soil helps forests to grow and regenerate.



13. Micro-organisms act upon the dead plants to produce

- (i) sand (ii) mushrooms (iii) humus (iv) wood

1. Fill in the blanks:

- (a) An image that cannot be obtained on a screen is called _____.
- (b) Image formed by a convex _____ is always virtual and smaller in size.
- (c) An image formed by a _____ mirror is always of the same size as that of the object.
- (d) An image which can be obtained on a screen is called a _____ image.
- (e) An image formed by a concave _____ cannot be obtained on a screen.

2. Mark 'T' if the statement is true and 'F' if it is false:

- (a) We can obtain an enlarged and erect image by a convex mirror. (T/F)
- (b) A concave lens always form a virtual image. (T/F)
- (c) We can obtain a real, enlarged and inverted image by a concave mirror. (T/F)
- (d) A real image cannot be obtained on a screen. (T/F)
- (e) A concave mirror always form a real image. (T/F)

3. Match the items given in Column I with one or more items of Column II.

Column I

(a) A plane mirror

(b) A convex mirror

(c) A convex lens

(d) A concave mirror

(e) A concave lens

Column II

(i) Used as a magnifying glass.

(ii) Can form image of objects spread over a large area.

(iii) Used by dentists to see enlarged image of teeth.

(iv) The image is always inverted and magnified.

(v) The image is erect and of the same size as the object.

(vi) The image is erect and smaller in size than the object.

4. State the characteristics of the image formed by a plane mirror.

Choose the correct option in questions 11–13

11. A virtual image larger than the object can be produced by a

- (i) concave lens
- (ii) concave mirror
- (iii) convex mirror
- (iv) plane mirror

12. David is observing his image in a plane mirror. The distance between the mirror and his image is 4 m. If he moves 1 m towards the mirror, then the distance between David and his image will be

- (i) 3 m
- (ii) 5 m
- (iii) 6 m
- (iv) 8 m

13. The rear view mirror of a car is a plane mirror. A driver is reversing his car at a speed of 2 m/s. The driver sees in his rear view mirror the image of a truck parked behind his car. The speed at which the image of the truck appears to approach the driver will be

- (i) 1 m/s
- (ii) 2 m/s
- (iii) 4 m/s
- (iv) 8 m/s