



GENERAL INSTRUCTIONS:

- All questions are compulsory.
- Section A carries 1 mark each.
- Section B carries 2 marks each.
- Section C carries 3 marks each.
- Section D carries 5 marks each.

SECTION -A

Select the correct option (Q1-16) (MCQ)

Q1. The muscular tube through which stored urine is passed out of the body is called
(a) kidney (b) ureter (c) urethra (d) urinary bladder

Q2. Breathing is a process that
(i) provides O_2 to the body (ii) breaks down food to release energy
(iii) helps the body to get rid of CO_2 (iv) produces water in the cells.
Which of the following gives the correct combination of functions of breathing?
(a) (i) and (ii) (b) (ii) and (iii) (c) (i) and (iii) (d) (ii) and (iv)

Q3. Which of the following organs does not secrete digestive juice?
(a) Small intestine (b) Liver (c) Stomach (d) Oesophagus

Q4. 'Litmus' is an extract of
(a) China rose (b) beetroot (c) lichen (d) blue berries

Q5. The finger-like outgrowths of Amoeba help to ingest food. However, the finger-like outgrowths of human intestine help to
(a) digest the fatty food substances (c) absorb the digested food
(b) make the food soluble (d) absorb the undigested food.

Q6. Which of the following can be used to form a real image?
(a) Concave mirror only. (c) Convex mirror only.
(b) Plane mirror only. (d) Both concave and convex mirrors.

Q7. Water polluted by various human activities causes a number of water borne diseases. Which of the following is a water borne disease?
(a) Cholera (b) Typhoid (c) malaria (d) both (a) & (b)

Q8. If a car travels 600km in 5 minutes, its speed in m/s is:
(a) 120m/s (b) 2m/s (c) 20m/s (d) 12m/s

Q9. Property which is common between vinegar and curd is that they both
(a) have sweet taste (c) are tasteless

(b) basic in nature

(d) acidic in nature

Q10. Which of the following statements is/are true for sexual reproduction in plants?

(i) Plants are obtained from seeds. (ii) Two plants are always essential.

(iii) Fertilisation can occur only after pollination.

(iv) Only insects are agents of pollination. Choose from the options given below.

(a) (i) and (iii) (b) (i) only (c) (ii) and (iii) (d) (i)and(iv)

Q11. In a battery, an electric current always flows from:

(a) positive terminal to negative terminal (c) positive terminal to iron strip

(b) negative terminal to positive terminal (d) negative terminal to iron strip

Q12. Which property of light is responsible for the formation of a rainbow?

(a) reflection (c) radiation

(b) dispersion of light (d) rectilinear propagation of light

Q13. Tanks that collect sludge are called

(a) clarifier (b) digester (c) aeration (d) collection

Q14. A physical change may involve

(a) change in colour only (b) change in size

(b) change in shape (d) all of these

Q15. The speedometer of a vehicle measures the speed in

(a) m/sec (b) m/min (c) Km/hr (d) Km/min

Q16. Transfer of pollen grains from the anthers of a flower to the stigma of a flower on a different plant is called

(a) fertilisation (b) self-pollination (c) cross- pollination (d) reproduction

Q17. Read the following passage and answer the following questions.

All of us use water in our homes and make it dirty. Rich in lather, mixed with oil, black–brown water that goes down the drains from sinks, showers, toilets, laundries is dirty. It is called wastewater. We must clean it up by removing pollutants. It has been reported that more than one billion of people have no access to safe drinking water. This accounts for a large number of water-related diseases and even deaths. People even children walk for several kilometers to collect clean water.

The increasing scarcity of freshwater is due to population growth, pollution, industrial development, mismanagement and other factors. Realizing the urgency of the situation on the World Water Day, on 22 March 2005, the General Assembly of the United Nations proclaimed the period 2005–2015 as the International Decade for action on “Water for life”. All efforts made during this decade aim to reduce by half the number of people who donot have access to safe drinking water.

1. Which of the following is waste water?

(a) Dirty water (b) Fresh water (c) Good water (d) Bad water

2. The increased scarcity of water is due to which of the following reasons?

(a) Population growth (c) More people

(b) Less population (d) Overexploitation

3.billion of people have no excess to safe drinking water.

- (a) One (b) Two (c) five (d) Ten

4. What causes water related disease and even death?

- (a) Drinking unsafe (c) Both (a) & (b)
(b) unhygienic water (d) pure water

Q18. For question numbers 1 to 4 two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) & (d).

(a) Both (A) and (R) are true and (R) is the correct explanation of the assertion.

(b) Both (A) and (R) are true and (R) is not the correct explanation of the assertion.

(c) (A) is true but (R) is false.

(d) (A) is false but (R) is true.

1. Assertion: Salts are the products of an acid base reaction.

Reason (R) : Salt may be acidic or basic.

2. Assertion: Parts of pistil are anther and filament.

Reason R : Bisexual flowers are those which contain both stamen and pistil.

3. Assertion: All heating devices contain an electric bulb inside them

Reason: Heat is released when electric current passes through electric bulb.

4. Assertion: During exercise food break down is by anaerobic respiration.

Reason: when the supply of oxygen to our muscle cell is insufficient anaerobic respiration occurs.

Q19. What is the function of gall bladder?

Q20. Why do we use indicator?

Q21. Complete the following reaction



Q22. Draw a well labelled diagram of male reproductive part of a flower.

Q23. Which type of lens always forms a virtual image?

Q24. Name the breathing organ of insects.

Q25. What are contaminants?

Q26. Why do arteries have thick elastic walls?

Q27. Which axis on a graph is the dependent variable & independent variable?

Q28. Why is transpiration important in plants?

Q29. In the formation of a rainbow, what acts as tiny prisms?

Q30. A train travels 45000 Km in one hour. Express its speed in m/s.

SECTION -B

- Q31. Explain why burning of wood and cutting it into small pieces are considered as two different types of changes.
- Q32. Why should we not throw used tea leaves into sink?
- Q33. Define dispersal of seeds. What will happen if all the seeds of a plant fall at the same place?
- Q34. Name the type of carbohydrate that can be digested by ruminants but not by humans. Give the reason also.
- Q35. A. Why should we look for ISI mark on electrical appliances?
B. On what factors does the heat produced in a wire depend?

SECTION -C

- Q36. Give two examples for each of the following cases:
(a) Physical changes which are reversible.
(b) Physical changes which are not reversible.
(c) Chemical changes.
- Q37. A. Why do we cover plug pin holes which are within the reach of children with a plastic cover when not in use?

B. Boojho made an electromagnet by winding 50 turns of wire over an iron screw. Paheli also made an electromagnet by winding 100 turns over a similar iron screw. Which electromagnet will attract more pins?
- Q38. You are provided with four test tubes containing sugar solution, baking soda solution, tamarind solution, salt solution. Write down an activity to find the nature (acidic/basic/neutral) of each solution.

SECTION -D

- Q39. A. When you keep food items like bread and fruits outside for a long time especially during the rainy season, you will observe a cottony growth on them.
(a) What is this growth called?
(b) How does the growth take place?
B. Differentiate between self -pollination and cross pollination with the help of diagram.

2+3