SET - A

I. Questions 1 to 12 carries 1 mark each. Answer them in a word or a sentence.

1. Define lateral inversion.
2. What is hurricane?
3. Name the acid which is produced in the stomach.
4. What is the function of platelets?
5. Name the upper chambers of human heart.
6. What is a convex lens?
7. Name the part of a flower which develops into a seed after fertilisation.
8. Mention the direction of cool air during land breeze.
9. Name the instrument used to measure the speed of wind.
10. What is neutralisation reaction?
11. Name the type of Carbohydrate that can be digested by ruminants but not by humans.
12. What is drip-irrigation?

II. Questions 13 to 23 carries 2 marks each. Answer them in 2 to 3 sentences.

13. What are the differences between real and virtual images? (2 points).
14. What is an aquifer? How is water in the aquifer available for use?
15. Differentiate between absorption and assimilation.
16. Name the breathing organ/s in the following organisms:
   (a) Frog   (b) Insects   (c) Fish   (d) Earthworm
17. What is ‘acid rain’? What makes the rain acidic?

18. Define aerobic respiration with the help of an equation.

19. Why do we get relief from muscle cramp after a hot water bath or massage?

20. Distinguish between arteries and veins.

21. Define radiation. Why do we feel comfortable to wear light or white clothes in summer?

22. What are ‘villi’? What is their function?

23. Calamine solution is applied on the skin when ant bites. Give reason.

III. Questions 24 to 35 carries 3 marks each. Answer them in 4 to 5 sentences.

24. a) What are unisexual flowers? Give one example.

   b) Differentiate between self pollination and cross pollination.

25. a) Identify the diagram given below and define the process shown in it.

   b) Label the diagram according to the serial numbers given.

26. a) What are indicators?

   b) Name any three indicators and mention their colour changes in acidic medium.

27. Distinguish between conductors and insulators. Give two examples each.

28. Draw a labeled diagram showing the blood circulation in human beings.

29. a) How does seed dispersal benefit the plants?

   b) Explain briefly with an example the dispersal of seeds by water.
30. Explain the mechanism of breathing in human beings.

31. Describe the process of respiration in plants.

32. Name any two glands associated with human digestive system. Mention the juices secreted by them and also write their functions.

33. a) Define concave mirror with the help of a diagram and write any one use of it.
   b) What are the characteristics of image formed by a concave mirror when the object is placed very close to it?

34. Explain how are wind currents generated due to uneven heating between equator and poles on the earth.

35. a) Name the two types of vascular tissues present in plants and state their functions.
   b) Does transpiration serve any useful function in the plants? Explain.

OR

35. Explain an activity to show the transpiration of water through cells. (Diagram not needed).

IV. Questions 36 to 41 carries 5 marks each. Answer them as directed.  
5 x 6 = 30

36. a) Identify the diagram given below.

b) Label the diagram according to the serial numbers given.

c) What are the various types of wastes formed in our body and mention how are they removed.

d) Define dialysis.
37. a) Write the **method** of an activity to show that air exerts pressure.
   b) Why does the can get distorted in the above activity?
   c) State any **two** experiences from your daily life to show that air exerts pressure.

OR

37. a) Name the factors which are responsible for the development of a cyclone.
   b) How does a thunder storm become a cyclone?
   c) What is a Tornado?

38. a) How are the three forms of water available on the earth? Explain.
   b) Mention the factors that lead to depletion of water table.

   b) What are the characteristics of image formed by a plane mirror?
   c) Nabeel is observing his image in a plane mirror. The distance between the mirror and his image is 5m. If he moves 2m towards the mirror then what will be the distance between Nabeel and his image? (Solve using steps).

40. a) Define vegetative propagation and write its **two** advantages.
   b) Mention the common method of reproduction in the following plants:
      (i) Spirogyra   (ii) Bryophyllum   (iii) Yeast   (iv) Fungus

41. a) Define temperature and write its unit.
   b) State similarities and differences between the laboratory thermometer and clinical thermometer.
   c) Write any **two** precautions to be observed while reading a clinical thermometer.