GENERAL INSTRUCTIONS

1. Total number of questions is 48. All questions are compulsory.
2. There is no overall choice. However internal choices have been provided in section E. Only one option in such question to be attempted.

SECTION – A

(15 x 1 = 15)

I.Q. 1 to 15 are multiple choice questions (MCQ) carrying 1 mark each. You are to select most appropriate response out of the four provided to you.

1. The process of obtaining butter from curd.

2. The non living component of a habitat is
   a. Abiotic  b. Biotic  c. Adaptation  d. None of these

3. No. of terminals in an electric bulb
   a. Three  b. Four  c. Two  d. One

4. ______ help frog in leaping and catching their prey.
   a. Tongue  b. Moist skin  c. Front legs  d. Back legs

5. Which of the following material produce a shadow?

6. Tiny ball like structures seen inside the ovary.

7. Plants release ______ gas during photosynthesis.

8. Object which allow light to pass through them clearly
   a. Transparent  b. Translucent  c. Opaque  d. Both A and C

9. Weak stemmed plants that take support on neighbouring structure and climb up

10. The process of removal of metabolic waste from the body.

11. The property used in separating a mixture of two solids by winnowing is
12. Which of the following has fibrous root?

13. The respiratory organ of octopus

14. A device used to close or open the electric circuit

15. The prominent attractive part of an open flower

SECTION – B

Q. 16 to 25 are very short answer type questions carrying 1 mark each. Answer them in a word or sentence.

II. Fill in the blanks.
16. ________ is a thin metal coil which glows on passing electric current.
17. The presence of water vapour in air is important for _________ in nature.
18. More substance can be dissolved in a solution by ________.

III. Name the following.
19. Name two terrestrial habitats.
20. A complete path for electric current to flow.
21. Name the solution is one in which no more of substance can be dissolved
22. The device used to find the direction of wind at a place.

IV. Rewrite the false statement.
23. Aquatic animals use atmospheric air for respiration.
24. Image formed by the pinhole camera is always as same size as the object.
25. 1) Identify the root system.
2) What type of venation will it have?
SECTION - C

V. Q. 26 to 35 are short answer type questions carrying 2 marks each. Answer them in one or two sentences.

26. What is the principle behind the pinhole camera? Write the nature of image formed by pinhole camera?
27. a). Name the processes involved in the separation of two immiscible liquids.
   b). Define condensation.
28. What is sieving? Where is it used?
29. a) Define electric cell.
   b) State the direction of flow of current in electric circuit.
30. Factories have long chimneys. Give reason.
31. Define reflection? How can we change the direction of light?
32. What is stimulus? How does a mimosa respond towards the change in the surroundings?
33. List the common characteristics of living things. (Any 4)
34. How is the oxygen in the atmosphere replaced?
35. Write two functions of root.

SECTION - D

VI.Q. 36 to 45 carrying 3 marks. Answer the following in 3 – 4 sentences.

36. Write the adaptive features of leaves and stem in cactus with labeled diagram.
37. a) What is shadow and how is it formed?
   b) Write the factors essential for the formation of shadow.
38. Why do we need to separate different component from a mixture?
39. Differentiate between reticulate and parallel venation with examples.
40. What is atmosphere? Write any 4 properties of air?
41.a) Some trees have needle shaped leaves. Why?
   b) Write two adaptations of deer to escape from lion.
42.a) Name two sources of electricity.
   b) A fused bulb does not glow. Why?
43. Write short on respiration.
44. Both insulator and conductors are important. Why?
45. Label the parts of the flower given below.

SECTION – E

VII. Q. 46 to 48 long answer type carrying 5 marks.

46. a) Explain the three types of plants according to their size with examples.
   
   b) Explain the female reproductive organ.

   OR

46. a) Draw and label any four parts of a leaf.
   
   b) The stem is like a two way street. Explain.

47. a). Draw the composition of air.
   
   b). Write a note on the interdependence of plants and animals.

   OR

47. a). Which component of air is essential for i) burning ii) growth of plants.
   
   b). How does oxygen become available to animals and plants living in soil?
   
   c). Write two uses of wind.

48. a). Identify the process of separation shown in the figure and label the parts.

   b) How do you obtain salt from sea water?