I. Fill in the blanks:  

1. The supply of water to crops at different intervals is called as _______________.

2. _______________ is the nitrogen fixing bacteria found in the roots of leguminous plants.

3. _______________ is used for making electrical switches and handles of various utensils.

4. Metals react with acids to produce _______________ gas.

5. The process of separation of different constituents from petroleum is called as _____________.

II. Choose the correct answer from the given options:  

6. The advantage of ploughing is
   a) it allows the penetration of roots of plants
   b) it helps in proper aeration and eradicates weeds
   c) it promotes the growth of useful bacteria
   d) All of these

7. The following is an antibiotic
   a) Sodium bicarbonate  b) streptomycin  c) alcohol  d) yeast

8. Which of these is called as artificial silk?
   a) rayon  b) polyester  c) nylon  d) none of these

9. A sample of gas was found to burn with a pop sound. Which of the following could have given this result
   a) oxygen  b) hydrogen  c) nitrogen  d) carbon dioxide

10. Which of the following is used as a domestic fuel?
    a) Petrol  b) diesel  c) LPG  d) bitumen

III. The following questions are short answer type. Each question carries 2 marks.  

11. What do you understand by ploughing? What is its importance?

12. Write two methods of preserving food.

13. Distinguish between thermoplastics and thermosetting plastics with examples.

14. Write two ways in which we can help to meet energy crisis.
IV. The following questions are short answer type. Each question carries 3 marks. \(4 \times 3 = 12\)

15. Write differences between fertiliser and manure. \(3\)
16. Write any two advantages and one disadvantage of plastics. \(3\)
17. Give reasons for the following:
   a) Sodium and potassium are stored in kerosene. \(3\)
   b) Copper wires are commonly used in household cables. \(3\)
   c) Silver articles become black after sometime when exposed to air. \(3\)
18. Write any three constituents of petroleum and their uses. \(3\)

V. The following questions are long answer type. Each question carries 5 marks. \(2 \times 5 = 10\)

19. a) If micro-organisms were not there, the earth would have been full of garbage and unwanted materials. Why?
   b) Write any two ways in which micro-organisms are beneficial to us. \(5\)
   c) Write any two ways in which micro-organisms are harmful to us. \(5\)

20. a) What happens when zinc strip is dipped into blue copper sulphate solution? Why?
   b) What would happen to iron railings on the road side if they are not painted? Why does it so happen?
   c) Why should food stuffs like chutneys, pickles and curd not be stored in containers made of metals? \(5\)