

VIVEK TUTORIALS

Biology
Practice Test
MODEL ANSWER
Max Marks: 30

Date : 03/Apr/2019

Grade: 8th (ICSE)

Time: 30Min

Name the following:

1. Phloem.

1

Fill in the blanks:

2. Transportation in plants is carried out by a transpiration system. 1
3. The upward movement of sap that contains water and minerals is called ascent of sap. 1
4. The leaves have more stomata on their lower surface. 1
5. Transpiration is more when the wind is blowing fast. 1

Choose the correct alternative:

6. (iii) from higher concentration to lower concentration. 1
7. (iii) Xylem 1
8. (iii) The plant will wilt (shrivel) 1
9. (iv) All the three 1

Write whether the statement is true or false (give reason if false):

10. True 1
11. True 1
12. True 1
13. False. A semi-permeable membrane allows smaller molecules to pass through, but prevents the smaller ones. 1

Define the following:

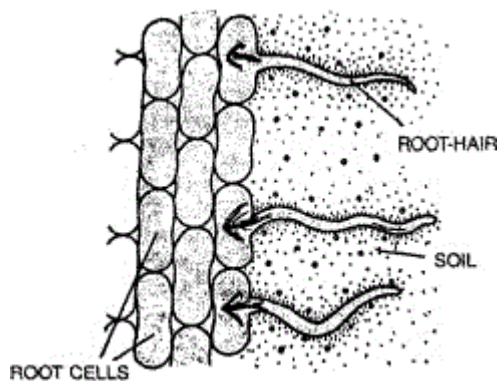
14. Semi-permeable membrane : It is a membrane that allows the movement of solvent molecules (e.g. water molecules) through it but prevents the movement of solute particles (e.g. sugar or salt molecules). For example : Egg membrane, parchment membrane, cellophane paper etc. are semi-permeable membranes. 1
15. Osmosis : The diffusion of water molecules through a semi-permeable membrane from a region where water is more concentrated to a region where it is less concentrated is called osmosis. 1
In other words, osmosis is the diffusion of water from its pure state or dilute solution into a stronger or concentrated solution through a semi-permeable membrane.

Answer the following in one or two sentence:

16. Circulation in plants is carried by a liquid called sap. Like blood in animals, it delivers useful substances to plant parts and carries away harmful waste materials. Movement of sap occurs through xylem and phloem elements. 1

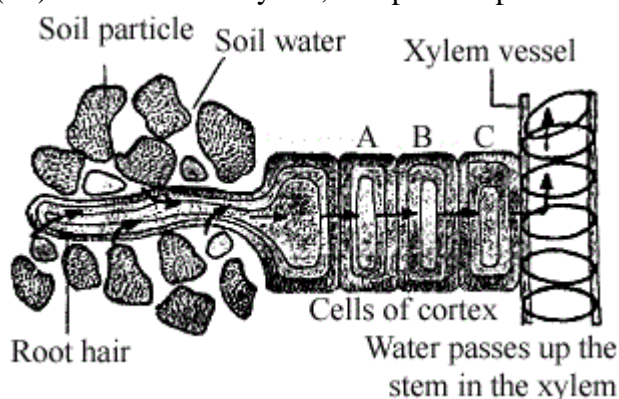
Answer the following:

17. Roots are useful to the plants in the following way: 2
(i) It absorbs water and minerals from the soil and transport it upward to various parts of a plant.
(ii) Roots fix the plant firmly in the ground.
18. Path of water through the root hair to the xylem vessels. 2



Answer the following in detail:

19. The water is absorbed by the root hair from the soil by osmosis. Water moves into plant cells by osmosis as follows: 5
- (i) The cell membrane of the plant cell is partially permeable.
 - (ii) The cell sap inside the vacuole is a highly concentrated solution whereas water in the soil is a low concentrated solution compared to the cell sap.
 - (iii) Having difference in concentration, water moves into the cell sap by osmosis.
 - (iv) The concentration of the sap in the vacuole is now weaker.
 - (v) Water passes from the weak solution into the strong solution in the next cell by osmosis.
 - (vi) This continues until water reaches the root xylem.
 - (vii) From the root xylem, it is pulled up in the stem and leaves through transpiration.



Answer the following with diagram:

20. According to the figure, in test tube A the water level falls because the water was absorbed by the plant through its roots dipped into the water. In this case, water loss does not occur due to evaporation from the water surface due to the presence of oil. 5
- In test tube B the water level remains unchanged as it does not contain a rooted plant. Again, due to the presence of oil on surface no water loss occurs due to evaporation.