



Transport in plant -DPP -05

1. Which of following is not result of imbibition-

- (a) Increase in volume of seed in water
- (b) Increase in volume of hydrocolloids
- (c) Increase in volume of water in potato osmometer
- (d) Swelling of resins in water

2. Consider the following statement-

- (1) All living cells have negative solute potential.
- (2) Plasmolyzed cell have negative turgor pressure.

How many correct-

- (a) Only 1
- (b) Only 2
- (c) Both correct
- (d) Both wrong

3. Consider the following statements-

- (1) Turgor pressure is lowest in plasmolyzed cell.
- (2) Osmotic pressure is highest in plasmolyzed cell.

How many correct-

- (a) Only 1
- (b) Only 2
- (c) Both correct
- (d) Both wrong

4. Which is incorrect direction of movement of water.

- (a) Low DPD to high DPD
- (b) Low O.P to High O.P
- (c) High D.P to Low D.P
- (d) Low water potential to high water potential

5. Bulk flow and mass flow is responsible for transport of

- (a) Food
- (b) Mineral
- (c) Water
- (d) all

6. Consider the following-

- (1) Bulk movement also depends upon water potential to large extent
- (2) Symplast is generally slower than apoplast.
- (3) Through cell wall movement is apoplast

How many are correct

- (a) One
- (b) Two
- (c) Three
- (d) None of these

7. Which of the following is not positive pressure

- (a) Root pressure
- (b) Transpiration pull
- (c) Push in phloem
- (d) Inside Garden hose

8. Which force is most important in transport of water in long distance:-

- (a) Diffusion
- (b) Active transport
- (c) Symplast
- (d) Force generated through Transpiration pull

9. Translocation is mainly defined as transport of-

- (a) Water and sucrose
- (b) Transport of water, amino acid, sugar, hormones through phloem
- (c) Transport of mineral
- (d) All of these

10. In leaves the transpiration is mainly beneficial in-

- (a) Small distance transport of water
- (b) Diffusion of water outside
- (c) Maintenance of continuous stream of water
- (d) Generation of tension in continuous stream of water

11. When water enter into vessels of xylem and move through it then it is called movement through pathway: -

- (a) Symplast (b) Apoplast
(c) Both a and b (d) None of these

12. In which part will Symplast movement of water take place-

- (a) Vessels
(b) spongy parenchyma
(c) endodermis cells of root
(d) parenchyma of xylem

13. For net movement of water from one system to another which would not be necessary condition –

- (a) Systems in contact
(b) Diffusion of water molecule
(c) Difference in water potential in two system
(d) All three needed

14. Mark the wrong statement

- (a) Solution in open beaker have positive water potential
(b) Addition of solute decrease water potential
(c) Addition of solute decrease solute potential
(d) Osmotic pressure is positive pressure

15. Consider the following-

- (1) Potato osmometer use to measure osmotic pressure
(2) Mycorrhizae present in roots of higher plants

How many correct-

- (a) Only 1 (b) Only 2
(c) Both correct (d) Both wrong

16. Consider the following statements-

- (1) Plasma membrane and tonoplast are important

determinant of molecule in or out from cell.

- (2) Numerically osmotic pressure is equal to osmotic potential, but the sign is opposite.

How many correct-

- (a) Only 1 (b) Only 2
(c) Both correct (d) Both wrong

17. Two chamber A and B separated from semipermeable membrane have same amount of solute but show net water movement from chamber A to B which surely implies-

- (a) Chamber B have low solute potential
(b) Chamber A have high solute potential
(c) Chamber B have low water potential
(d) Chamber B have high water potential

18. Which cannot be correct direction of movement of water

- (a) High solute potential to low solute potential if

pressure is atmospheric pressure

- (b) High pressure potential to low pressure potential in pure water

- (c) Low osmotic pressure to high osmotic pressure

- (d) Low DP to high DP

19. Absorption of mineral by root

- (a) Occur by Root hair
(b) More active than passive
(c) More passive than active
(d) Both a and b

20. Transport of water occur with the help of –

- (a) Xylem only
(b) Phloem only
(c) Both a and b
(d) None of the above

21. Transport protein is located in membrane of –

- (a) Epidermal cells
(b) Endodermal cells
(c) Both a and b
(d) None of the above

22. Consider the following statements-

- (1) During transpiration, when stomata are open more water vapour is present in substomatal cavity of leaf from outside

- (2) Hydrophytes if grow in normal soil condition will absorb less water

How many correct-



- (a) Only 1 (b) Only 2
(c) Both correct (d) Both wrong
23. Most negative water potential present in
(a) Root (b) Leaf
(c) Soil (d) Stem
24. Which is wrong statement-
(a) Force for pressure flow is push in phloem
(b) Water potential not important for bulk flow
(c) Bulk flow is same for solution and for suspension.
(d) Apoplast or symplast any pathway can be follow during bulk flow.
25. Water channel consists of how many types of aquaporins-
(a) 1 (b) 84
(c) 8 (d) 9
26. Which is correct about Root pressure-
(a) Pull
(b) Positive hydrostatic pressure
(c) Negative hydrostatic pressure
(d) all
27. Facilitated diffusion -
(a) Needs a carrier protein
(b) Is an active process
(c) Occur uphill
(d) Needs pump
28. Which process is irrelevant for plant in transport of water -:
(a) Mass flow
(b) Transpiration pulls
(c) Bulk flow
(d) Pressure flow
29. Which cell can withstand or not break in higher pressure of transpiration pull?
(a) Mesophyll cell
(b) Sieve tube
(c) Vessels elements
(d) Xylem parenchyma
30. Out of all which will show maximum imbibition
(a) Wheat grain (b) Protein
(c) Resins (d) Agar agar

ANSWERS

Answer key-

- 1(c)
2(c)
3(c)
4(d)
5(d)
6(c)
7(b)
8(d)
9(d)
10(d)
11(b)
12(c)
13(d)
14(a)
15(c)
16(c)



17(c)
18(d)
19(d)
20(a)
21(c)
22(c)
23(b)
24(b)
25(c)
26(b)
27(a)
28(d)
29(c)
30(d)



Note - If you have any query/issue

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