



ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

WORK SHEET – 29

Class: IX

Sub: Life science

Date: 18.05.2020

Topic: Active transport and Root pressure theory

F.M. : 15

Choose the correct option:

(1x15=15)

1. The process by which uptake of molecules occurs with the expense of energy is called :-
a) Diffusion b) Osmosis c) Active transport d) None of these
2. There are _____ types of Active transport:-
a) One b) two c) three d) Four
3. The active transport which takes place following osmotic gradient is called :-
a) Osmotic type b) Non-osmotic type c) diffusion d) None of these
4. Active osmotic absorption causes the :-
a) Suction pressure of root hairs to decrease b) Suction pressure doesn't change c) Suction pressure increases in root hairs d) All of these
5. The endodermis has a special structure which does not allow water to pass. It is called :-
a) Bulliform cells b) Casparian strips c) Scalariform thickening d) None of these
6. The specialized cell which allow water to enter from endodermis to pericycle are called :-
a) Endodermal cell b) Xylem cell c) Pits d) Passage cells
7. During active transport special _____ are used to transport molecules or ions across the membrane.
a) Protein carriers b) Carriers c) Lipid carriers d) Cells
8. The absorption of water in the non-osmotic active transport takes place _____ concentration gradient.
a) Along b) Against c) Sometimes along and sometimes against d) None of these
9. In active non-osmotic transport the osmotic pressure of soil water is _____ than that of root hair cells.
a) Greater b) Lesser c) Equal d) No effect
10. Active non-osmotic absorption of water depends on following factors :-
a) ATP Production b) Concentration gradient c) Phytohormones d) All of these
11. The upward of movement of sap along with minerals is called :-
a) Sap exchange b) Ascent of sap c) Sap rise d) Uptake of sap
12. The direction of ascent of sap is :-
a) Leaves to root b) Stem to branches c) Root to leaves d) All of these

13. Root pressure theory was proposed by :-
a) Dixon and Jolly b) Stephen and Hales c) Peter Mitchell d) Pfeffer
14. The root pressure can only force the ascent of sap upto:-
a) 10-15 metres b) 15 Metres c) 7 Meter d) 3-4 metres
15. The root pressure is the actually the cumulative effect of:-
a) Hydrostatic pressure b) Suction pressure c) Turgor pressure in the cortical cell
d) All of these

Shaista Ahmed