



# 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

**Answer : Active transport (c)**

2. There are \_\_\_\_\_ types of Active transport:-

a) One b) two c) three d) Four

**Answer : Two (b)**

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

**Answer : Osmotic type (a)**

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

**Answer : Suction pressure increases in root hairs (c)**

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

**Answer : Casparian strips (b)**

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

**Answer : Passage cells (d)**

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

**Answer : Protein carriers (a)**

8. The absorption of water in the non-osmotic active transport takes place \_\_\_\_\_ concentrate gradient.

a) Along b) Against c) Sometimes along and sometimes against d) None of these

**Answer : Against (b)**

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  
**Answer : Greater (a)**
10. Active non-osmotic absorption of water depends on following factors :-  
a) ATP Production b) Concentration gradient c) Phytohormones d) All of these  
**Answer : All of these (d)**
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  
**Answer : Ascent of sap (b)**
12. The direction of ascent of sap is :-  
a) Leaves to root b) Stem to branches c) Root to leaves d) All of these  
**Answer : Root to leaves (c)**
13. Root pressure theory was proposed by :-  
a) Dixon and Jolly b) Stephen and Hales c) Peter Mitchell d) Pfeffer  
**Answer : Stephen and Hales (b)**
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  
**Answer : 3-4 metres (d)**
15. The root pressure is the actually the effect of:-  
a) Hydrostatic pressure b) Suction pressure c) Turgor pressure in the cortical cell  
d) All of these  
**Answer : All of these (d)**