



ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

WORK SHEET – 30

Class: IX

Sub: Life science

Date: 08.06.2020

Topic: Ascent of sap - Adhesive cohesive force theory

and translocation of food by phloem F.M. : 15

Choose the correct option:

(1x15=15)

1. The force of attraction among the water molecule which forms a continuous chain is called :-
a) Hydrostatic force b) Hydrophilic force c) Cohesive force d) Adhesive force
2. The force of attraction between water molecules cells and xylem is called :-
a) Cohesive force b) Xylem pressure c) Wall pressure d) Adhesive force
3. The pull which is developed due to the Transpiration is called :-
a) Transpiration pull b) Cohesive pull c) Adhesive pull d) All of these
4. The Transpiration pull results in the:-
a) Formation of suction pressure b) Partial vacuum in the plant leaf c) Suction pressure in the roots d) All of these
5. Ascent of sap is combined effect of the following :-
a) Root pressure b) Adhesive cohesive force c) Transpiration pull d) All of these
6. The continuity of water column in xylem is due to :-
a) Adhesive force b) Cohesive force c) Adhesive-cohesive force both d) Root pressure
7. The water enters the cortical cells, by cell to cell _____.
a) Active transport b) Osmosis c) Diffusion d) Both (b) and (c)
8. Adhesive - cohesive transpiration pull theory was _____ proposed by :-
a) Stephen and Hales b) Dixon and Jolly c) Edward Jenner d) None of these
9. The transport of food through phloem is called :-
a) Translocation b) Active transport c) Passive transport d) Transportation
10. The bulk flow hypothesis of translocation of food was proposed by :-
a) Curtis b) Munch c) Fensom and Williams d) None of these
11. According to Munch's hypothesis the leaves act as _____ and roots act as _____.
a) Source and sink respectively b) Sink and source respectively c) Transportation centre and absorption center respectively d) None of these
12. Curtis proposed the concept of _____ which helps in translocation of food.
a) Mass flow b) Bulk flow c) Cytoplasmic streaming d) All of these

13. According to Fensholt and Williams contraction and relaxation of _____ cause translocation of food.
- a) Plasmodesmata b) P-proteins c) Phloem fibres d) Sieve tubes
14. The most legitimate theory in support of ascent of sap is :-
- a) Adhesive-cohesive Transpiration pull theory b) Root pressure theory c) Pulsation theory d) None of these
15. Munch's bulk flow hypothesis was proposed in the year :-
- a) 1974 b) 1935 c) 1942 d) 1930

Shaista Ahmed