NEET - C11 - TRANSPORT IN PLANTS

1. **In which form, does the food transported in plants?**

   A. Sucrose B. Fructose

   C. Glucose D. Lactose

2. **In land plants, the guard cells differ from other epidermal cells in having**

   A. mitochondria B. endoplasmic reticulum

   C. chloroplasts D. cytoskeleton

3. **Whose water potential is less than water potential of root hair during the water absorption by root hair?**

   A. Gravitational water B. Soil solution

   C. Pure water D. Vacuolar sap

4. **Which of the following is appropriate for mass-flow hypothesis?**

   A. Transpiration pull is responsible for absorption of ions

   B. Large amount of ions are also absorbed along with the absorption of water

   C. As suction pressure increases, absorption of water increases and along with water, absorption of ion also increases

   D. All of the above

5. **A leaf with more stomata on lower surface belongs to**

   A. potato type B. oat type

   C. apple-mulberry type D. Nymphaea type

6. **In a plant organ, which is covered by penderm and in which the stomata are absent, some gaseous exchange still takes place through**

   A. aerenchyma B. trichomes

   C. pneumatophores D. lenticels

7. **Potometer works on the principle of**

   A. amount of water absorbed equals the amount transpired

   B. osmotic pressure

   C. root pressure

   D. potential difference between the tip of the tube and that of the plant

8. **A cell swells up when kept in**

   A. hypotonic solution B. hypertonic solution

   C. isotonic solution D. All of these

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9. **A soil sample is found to have 25% of its volume occupied by soil water. Of this, 10% is hygroscopic water and the remaining is capillary water. What is the field capacity of this soil?**

A. 10% B. 15%

C. 25% D. 35%

10. **The water available to plants for absorption is**

A. gravitational water B. hygroscopic water

C. capillary water D. chemically bound water

11. **Which of the following experiments is called physiological demonstration of osmosis?**

A. Thistle funnel, whose mouth is tied with egg membrane

B. Thistle funnel, whose mouth is tied with parchment paper

C. Potometer

D. Bell jar experiment

12. **Active transport**

A. releases energy B. requires energy

C. produces ATP D. produces a toxic substance

13. **Cell-A has osmotic potential of -18 bars and pressure potential of 8 bars, whereas, cell-B has osmotic potential of - 14 bars and pressure potential 2 bars. The direction of flow of water will be**

A. from cell-B to cell-A B. from cell-A to cell-B

C. no flow of water D. in both the directions

14. **The sugarcane plant has**

A. dumb bell-shaped guard cells B. pentamerous flowers

C. reticulate venation D. capsular fruits

15. **Which of the following is not a purpose of transpiration?**

A. Supplies water for photosynthesis

B. Helps in translocation of sugars from source to sink

C. Maintains shape and structure of the plant

D. Cools leaf surface

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16. Which of the following has maximum water potential?

A. Pure water B. 2% sucrose solution

C. 4% glucose solution D. 10% sodium chloride solution

17. Identify the correct statements from the following:

I. Accumulation of K^+ ions in the guard cells does not require energy.

II. A high pH favours stomatal opening.

III. Movement of chloride ions into the guard cells accrues in the response to the electrical differential created by K^+ ions.

IV. With the entry of several K^+ ions and chloride ions, the water potential of guard cells increases.

A. I and III B. I and II

C. II and III D. III and IV

18. The potential energy of water is referred as

A. osmotic potential B. water potential

C. pressure potential D. gravity potential

19. The epidermal trichomes help in

A. transpiration and exchange of gases B. protection from desiccation

C. protection and reduction of transpiration D. exudes water drops from their tips

20. Loss of liquid water by guttation occurs through

A. hydathodes B. stomata

C. cuticle D. bark

21. Stomatal opening is regulated by

A. light B. temperature

C. atmospheric humidity D. wind

22. The rate of transpiration will be very less in a situation where

A. ground water is sufficiently available

B. wind is blowing with a very high velocity

C. environment is very hot and dry

D. relative humidity is very high

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23. The rupture and fractionation do not usually occur in the water colunm in vessels/tracheids during the ascent of sap because of

A. lignified thick walls B. cohesion and adhesion

C. weak gravitational pull D. transpiration pull

24. Which of the following statements is correct?

A. DPD=OP-WP B. DPD=OP+WP

C. DPD=WP-OP D. DPD=TP+OP

25. Which one of the following is not an antitranspirant?

A. PMA B. BAP

C. Silicon oil D. Low viscosity

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1. A	2. C	3. D	4. D	5. A
6. D	7. A	8. A	9. C	10. C
11. B	12. B	13. B	14. A	15. B
16. A	17. C	18. A	19. C	20. A
21. A	22. D	23. B	24. A	25. B