April 2014 (2)

Seat No. | | | | | | |

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BOTANY PAPER - II : BOT - 232

Plant Physiology

(New) (23146)

P. Pages : 2

Time : Two Hours **Max. Marks : 40**

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answersheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. All questions are compulsory.
5. Figures to the right indicate full marks.
6. Draw neat and labelled diagrams whenever necessary.

1. Attempt **any eight.** **8**

i) First step in absorption of mineral salt by plant is .....
   a) imbibition b) diffusion
   c) ion-exchange d) none of these

ii) Ascent of sap takes place in .....
   a) xylem parenchyma
   b) wall of tracheary elements
   c) trachidis with associated xylem paranchyma
   d) Lamen and tracheary elements

iii) Osmosis is the diffusion of .....
   a) water b) solute particles
   c) gases d) energy

iv) Who discovered the light reaction ?

v) Endo osmosis occures when the plants cell is placed in
   a) strong solution b) isotonic solution
   c) hypotonic solution d) none of these

vi) Give balanced equation of aerobic respiration.

vii) What is fermentation ?

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viii) What is chemotactic movement ?

ix) Define photosynthesis.

x) What are the end products of dark reaction.

2. Attempt **any four.** **8**

a) Explain the pulsation theory.

b) What is phototropic movement.

c) Explain the role of root hair in water absorption.

d) Explain the various factors affecting rate of diffusion.

e) What are the prerequisites of osmosis.

f) Give relationship between OP, TP and DPD.

3. Attempt **any two.** **8**

a) What is respiration and give types of respiration.

b) Explain the effect of O_2 and CO_2 on photosynthesis.

c) Explain in brief transpiration k+ pump theory.

4. a) Solve **any two.** **6**

i) Describe photolysis of water.

ii) Give the outline of calvin cycle.

iii) Briefly describe the contact exchange theory.

b) Explain endo-osmosis. **2**

5. Describe in detail tactic movement in plants. **8**

OR

Explain non-cyclic photophosphorylation.

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