

S.Y.B.SC. SEM – IV (CBCS - 2016 Course) : WINTER - 2018

SUBJECT: BOTANY: PLANT PHYSIOLOGY

Day: Wednesday
Date: 24/10/2018

W-2018-0732

Time: 03.00 P.M. To 06.00 P.M
Max. Marks: 60

N.B:

- 1) All questions are **COMPULSORY**
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Draw neat and labeled diagram **WHEREVER** necessary.
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Q.1 Attempt any **TWO** of the following **(12)**

- a) What is diffusion? Describe phenomenon with an experiment.
- b) Explain importance of water in plant life.
- c) Describe passive absorption of water.

Q.2 Attempt any **TWO** of the following **(12)**

- a) What is Osmosis? Demonstrate the phenomenon with experiment.
- b) Define transpiration. Explain various factors affecting rate of transpiration.
- c) Explain relationship between O.P., T.P. and D. P. D.

Q.3 Attempt any **TWO** of the following **(12)**

- a) Define growth. Describe different phases of growth.
- b) What is glycolysis? Give schematic representation of glycolysis.
- c) Comment on Calvin Cycle.

Q.4 Attempt any **THREE** of the following **(12)**

- a) What is photophosphorylation and explain its cyclic structure.
- b) Define vernalization. Explain mechanism of hormonal theory.
- c) Give practical application of Gibberellins.
- d) Explain phenomenon of photoperiodism.

Q.5 Write short notes on any **FOUR** of the following **(12)**

- a) Distinguish between short day plant (SDP) and long Day plant (LDP)
- b) Describe factors affecting on growth.
- c) Write note on endosmosis and exosmosis
- d) Give structure of stomata
- e) Give application of growth hormones
- f) Write note on antitranspirants.

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