

M.Sc. Botany (Life Science)
Semester – III - Theory Examination
Paper – 10: Plant Physiology and metabolism

Dec - 2016

Time: 2.30 Hrs

Code No. 3687

Total Marks: 70

INSTRUCTIONS: (1) Draw a labeled diagram where ever it is necessary.
(2) Figure on right side indicates marks of question.

Q.1 Define osmosis and explain different types of osmosis. (14)

OR

- Q.1 (a) Describe the process of plasmolysis in plants. (07)
(b) Describe the role of essential elements. (07)

Q.2 Explain the process of light reaction during photosynthesis. (14)

OR

- Q.2 (a) Write a note on factors affecting photosynthesis. (07)
(b) Describe the CAM pathway. (07)

Q.3 Describe the classification of lipids. (14)

OR

- Q.3 (a) Describe the process of Glycolysis. (07)
(b) Anaerobic respiration in plants. (07)

Q.4 Write a note on Nitrogen cycle. (14)

OR

- Q.4 (a) Describe the nodule formation. (07)
(b) Write a note on sulphate uptake. (07)

Q.5 Write a note on photoperiodism and its significance. (14)

OR

- Q.5 (a) Write a note on Vernalization. (07)
(b) Write a note on biotic and abiotic stress. (07)