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B.Sc. 3rd Semester (Pass) (New Scheme)

Examination, November–2018

BIO-TECHNOLOGY

Paper–BT-303

Plant Physiology

Time allowed : 3 hours]

[Maximum marks : 40

Note : Answer five questions in all. Question No. 1 is compulsory. Attempt four more questions selecting one question from each unit. All questions carry equal marks.

1. Write on the following : 10×1
- (a) Quiescent centre
 - (b) Imbibition
 - (c) Macronutrients
 - (d) Give the full form of CAM.
 - (e) Compensation point
 - (f) Diffusion
 - (g) Name the gaseous hormone
 - (h) Wood parenchyma
 - (i) Guttation
 - (j) Types of stomata

Unit–I

2. Describe the internal structure of dicot root with labelled diagram. 7½

3. (a) Discuss the shoot apical meristem in plants. 4
(b) Secondary growth in plants. 3½

Unit-II

4. Discuss the role and deficiency symptoms of potassium, iron and sulphur in plants. 7½
5. Explain the mechanism of opening and closing of stomata in plants. 7½

Unit-III

6. (a) Differentiate C_3 and C_4 plants. 4
(b) Photorespiration 3½
7. Explain the nitrogen fixation in plants. 7½

Unit-IV

8. (a) Discuss the role of gibberellins in plants. 4
(b) Describe the inductive and non-inductive flowering. 3½
9. What is seed dormancy? Give the types of seed dormancy. Describe the methods to overcome the seed dormancy. 7½