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B—54—2019

FACULTY OF SCIENCE

B.Sc. (Fifth Semester) EXAMINATION

MARCH/APRIL 2019

(CBCS Pattern)

BOTANY

Paper XII

(Plant Physiology)

(Monday, 25-3-2019)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (i) Attempt All questions.

(ii) All questions carry equal marks.

1. Attempt any *four* of the following (each of 2 marks) : 8
 - (a) Diffusion
 - (b) Structure of stomata
 - (c) Role of nitrogen in plants
 - (d) Growth curve
 - (e) Vernalization
 - (f) Biological functions of protein.
2. Attempt any *two* of the following (each of 4 marks) : 8
 - (a) What is Transpiration ? Explain the mechanism of transpiration.
 - (b) What are major and minor elements ? Add a note on role and deficiency symptoms of Nitrogen and Sulphur.
 - (c) What is mineral salt absorption ? Explain ion exchange theory.

P.T.O.

3. Attempt any *one* of the following (each of 8 marks) : 8
- (a) What are plant movements ? Add a note on tropic movement.
 - (b) What is translocation of organic solutes ? Add a note on Munch's mass flow hypothesis.
4. Attempt any *two* of the following (each of 4 marks) : 8
- (a) What is seed dormancy ? Add a note on factors affecting seed dormancy.
 - (b) What are plant growth hormones ? Describe in detail applications of Auxin in plants.
 - (c) Explain primary and secondary structure of proteins.
5. Attempt any *one* of the following (each of 8 marks) : 8
- (a) What is photoperiodism ? Add a note on LDP, SDP and Day neutral plants.
 - (b) What are carbohydrates ? Explain biological applications of starch and cellulose.