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**W—47—2018**

**FACULTY OF SCIENCE**

**B.Sc. (Fifth Semester) EXAMINATION**

**OCTOBER/NOVEMBER, 2018**

**(CBCS Pattern)**

**BOTANY**

**Paper XII**

**(Plant Physiology)**

**(Saturday, 13-10-2018)**

**Time : 10.00 a.m. to 12.00 noon**

*Time—Two 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) Plasmolysis
  - (b) Seismotropic movement
  - (c) Role of zn and mn in plants
  - (d) Vernalization and Devernalization
  - (e) Biological functions of starch
  - (f) B-sheet of protein.
2. Attempt any *two* of the following (Each of **4** marks) : 8
  - (a) What is ascent of sap ? Describe the mechanism of ascent of sap.
  - (b) Describe the process of Diffusion and Imbibition.
  - (c) What is Translocation of organic solutes ? Add a note on munch's mass flow hypothesis.
3. Attempt any *one* of the following (Each of **8** marks) : 8
  - (a) What is Transpiration ? Add a note on K<sup>+</sup> pump theory.
  - (b) What are major and minor elements ? Add a note on role of mg and N in plants.

P.T.O.

4. Attempt any *two* of the following (Each of **4** marks) : 8
- (a) What is seed germination ? Add a note on factors affecting seed germination.
  - (b) What are LDP, SDP and Day neutral plants ?
  - (c) Biological functions of Tannings.
5. Attempt any *one* of the following (Each of **8** marks) : 8
- (a) What is Growth ? Explain different phases of growth.
  - (b) What is seed dormancy ? Explain methods of breaking of seed dormancy.