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**V—45—2017**

**FACULTY OF SCIENCE**

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

**OCTOBER/NOVEMBER, 2017**

**(New Course)**

**BOTANY**

**Paper XII**

**(Plant Physiology)**

**(Friday, 13-10-2017)**

**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. What is Ascent of Sap ? Explain in detail cohesive force theory. 8

*Or*

(a) Stomatal transpiration

(b) Phototropism.

2. What are microelements ? Explain source, deficiency symptoms and role of Zn and Mn in plant nutrition. 8

*Or*

(a) Ion Exchange theory

(b) Munch's mass flow hypothesis.

3. What is growth ? Explain phases of growth. 8

*Or*

(a) Application of cytokinines

(b) Photoperiodism.

P.T.O.

4. What are carbohydrates ? Give its classification and functions. 8

*Or*

(a) Secondary structure of protein

(b) Biological functions of terpenoids.

5. Write short notes on (any *four*) : 8

(a) Plasmolysis

(b) Chemotropism

(c) Role of sulphur in plant nutrition

(d) Application of Abscisic acid

(e) Short day plants

(f) Function of cellulose.