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**Y—48—2019**

**FACULTY OF SCIENCE AND TECHNOLOGY**

**B.Sc. (Third Year) (Sixth Semester) (Backlog) EXAMINATION**

**OCTOBER/NOVEMBER, 2019**

**(CBCS Pattern)**

**BOTANY (Compulsory)**

**Paper XIV**

**(Plant Metabolism, Biochemistry and Biotechnology)**

**(Wednesday, 16-10-2019)**

**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.**

**(iii) Draw neat and well labelled diagrams wherever necessary.**

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

**(a) Photosynthetic pigments**

**(b) Significance of respiration**

**(c) Ammonification**

**(d) Explant**

**(e) DNA ligase**

**(f) Transgenic plant.**

**2. Write short notes on (any two) : 8**

**(a) Ultrastructure of chloroplast**

**(b) Non-cyclic photophosphorylation**

**(c) IUB enzyme classification.**

**P.T.O.**

3. What is anaerobic respiration ? Describe Lactic acid and alcoholic fermentation. 8

Or

Describe feedback regulation of enzyme activity.

4. Write short notes on (any two) : 8

(a) Synthetic seeds

(b) Plasmid vector

(c) Protoplast culture.

5. Describe somatic hybridization in detail. 8

Or

Give an account of genomic library.