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**Y—49—2019**

**FACULTY OF SCIENCE**

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

**OCTOBER/NOVEMBER, 2019**

**(CGPA Pattern)**

**BOTANY**

**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. What is photophosphorylation ? Describe non cyclic photophosphorylation. 8**

**Or**

**Write in brief :**

**(a) Significance of photosynthesis**

**(b) Ultrastructure of chloroplast.**

**2. Elaborate new system of classification of enzymes and add a note on their nomenclature. 8**

**Or**

**Explain in short :**

**(a) Induced fit theory**

**(b) Ammonification.**

**3. What is Micropropagation ? Explain the stages involved in the micropropagation. 8**

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Or

Explain in brief :

- (a) Culture media
- (b) Somatic hybridization.

4. What is recombinant DNA technology ? Explain tools and technique used in r-DNA technology. 8

Or

Explain in brief :

- (a) C-DNA Library
- (b) Plasmid.

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

- (a) Lactic acid fermentation
- (b) Ultrastructure of mitochondria
- (c) Sources and forms of Nitrogen
- (d) Concept of Holoenzyme
- (e) Productions of haploid
- (f) Transgenic plant.

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