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V—44—2017

FACULTY OF SCIENCE

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

OCTOBER/NOVEMBER, 2017

(Old Course)

BOTANY

Paper XII

(Cell and Molecular Biology)

(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.

(iii) Draw well labelled diagrams wherever necessary.

1. Write short notes on (any two) :

(i) Function of Endoplasmic Reticulum

(ii) Nuclear membrane

(iii) Polytene chromosomes

(iv) Gene mutation

(v) rRNA

(vi) Concept of Gene.

2. Write notes on (any two) :

(i) Lysosomes

(ii) Structure of Ribosomes

(iii) Cell cycle

(iv) Prophase of Meiosis.

3. Write notes on (any two) :

(i) Nucleosome

P.T.O.

- (ii) SAT chromosome
 - (iii) Stored food in prokaryotic cells
 - (iv) Cell wall and capsule of bacterial cell.
4. Describe (any one) :
- (i) Meselson and Stahl's Experiment
 - (ii) Alkaptonuria.
5. Write short notes on (any two) :
- (i) Structure of *t*RNA
 - (ii) DNA composition
 - (iii) Albinism
 - (iv) Amnio centesis.