

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2018
(Fourth Semester)

Branch - **BIOCHEMISTRY**

RECOMBINANT DNA TECHNOLOGY

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks (10 x 2 = 20)

- 1 Define Vector.
- 2 Give the types of Restriction enzymes.
- 3 Define pBR322.
- 4 Define Recombinants.
- 5 What is genomic library?
- 6 What is Genetic finger printing?
- 7 Define protein engineering.
- 8 What is HRT & HART?
- 9 Define fusion protein.
- 10 What is tissue plasminogen activator? '

SECTION - B (25 Marks)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks (5 x 5 = 25)

- 11 a Write an account on Bacteriophage vector.
OR
b Give the methods of ligation of DNA.
- 12 a Give an account on yeast vectors and its types.
OR
b How are Recombinant phages identified?
- 13 a What is Probe? How it is labelled?
OR
b Explain about western blotting technique.
- 14 a Explain about Sanger's method of DNA sequencing.
OR
b Write about Oligonucleotide directed mutagenesis.
- 15 a What are the problem caused in expression of Eukaryotic genes?
OR
b Explain about yeast system for HBVs Ag.

SECTION - C (30 Marks)

Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 Explain in detail about preparation of plasmid DNA from bacteria.
- 17 What are the transformation methods for E.coli? Explain any three techniques.
- 18 Explain in detail about cDNA library construction.
- 19 Write about PCR technique and its application.