

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2019
(Fourth Semester)

Branch - **BIOTECHNOLOGY**

rDNA TECHNOLOGY

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer **ALL** questions

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

- 1 cccDNA.
- 2 Prophage.
- 3 Cohesive end.
- 4 RNase H.
- 5 Electroporation.
- 6 Phagemid.
- 7 RT-PCR.
- 8 Protein engineering.
- 9 Reporter gene.
- 10 VNTRs.

SECTION - B (25 Marks)

Answer **ALL** Questions

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

- 11 a Short note on Phage Vectors.
OR
b Discuss - Isolation of plasmid DNA.
- 12 a Short note on restriction mapping.
OR
b Comment on End modifying enzyme.
- 13 a Narrate on screening methods of recombinants.
OR
b Briefly write about Yeast vectors.
- 14 a Write about cDNA library.
OR
b Brief on any two blotting techniques.
- 15 a Write about expression vectors.
OR
b Discuss - Any two famous case/trail solved though the application of rDNA.

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

- 16 A detailed account on gene cloning, steps and its impact on future.
- 17 Restriction endonuclease - Discuss.
- 18 Write about the E.coli cloning vectors.
- 19 A detailed note on DNA sequencing methods.
- 20 Discuss - DNA analysis, methods and applications.