

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2019  
(Third Semester)

Branch - **BIOCHEMISTRY**

**BIOTECHNOLOGY**

Time: Three Hours

Maximum: 75 Marks

**SECTION -A (30 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks ( 5 x 6 = 30)

- 1 a Write the structure and advantages of PUC 8.  
OR  
b Brief on the life cycle of M13 vector.
- 2 a How will you screen CDNA library from mRNAs?  
OR  
b Explain the construction of YAV vector for cloning DNA segments.
- 3 a Write the role of SV40 as a viral vector.  
OR  
b Comment on the selectable marker genes for scoring of transformed cells.
- 4 a Explain the structure and functions of Ti plasmids.  
OR  
b Brief on edible vaccines.
- 5 a Write a note in animal pharming.  
OR  
b Brief on cloning animals by nuclear transfer.

**SECTION -B (45 Marks)**

Answer any **THREE** questions

• **ALL** questions carry **EQUAL** Marks ( 3 x 15 = 45)

- 6 What are restriction endonucleases? Discuss its types with suitable examples.
- 7 Discuss about the construction of genomic library using rDNA technique.
- 8 Outline the different gene transfer methods.
- 9 Explain the production of herbicide resistance transgenic plants.
- 10 Illustrate the different types of somatic cell gene therapy.