

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2018
(Fourth Semester)

Branch – APPLIED MICROBIOLOGY

APPLIED 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 Briefly explain about culture selection and strain improvement for penicillin production.
OR
b What are the monoclonal antibodies? How can monoclonal novel antibodies produced? Explain.
- 2 a What are reporter genes? Give four examples.
OR
b How are herbicide resistant plants developed? Explain.
- 3 a What is transfection? Explain about microinjection method.
OR
b Give an account of transgenic goat production.
- 4 a Briefly explain about the steps involved in RFLP and its application in gene mapping.
OR
b Illustrate DNA microarray and its applications.
- 5 a Describe the conditions which need to be met before patenting can be issued.
OR
b What are xenobiotics? briefly explain about plastic degradation process.

SECTION -B (45 Marks)

Answer any THREE questions

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

- 6 Describe the Xanthan gum production by genetically modified X. Campestris.
- 7 Explain the method of gene transfer in plants with help of Ti – plasmid.
- 8 Outline the process of development of transgenic cattle and its uses.
- 9 Describe in detail about human somatic gene therapy.
- 10 Describe in detail the GMOs used for cleaning of oil spills.

Z-Z-Z

END