

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2019  
(Third Semester)

Branch -**BOTANY**

**BIOTECHNOLOGY & GENETIC ENGINEERING**

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 scope and importance of Biotechnology. Explain the recent developments in biotechnology .

OR

b Write notes on the industrial application of amylases.

2 a Discuss the basic design of an antibiotic producing unit.

OR

b Discuss the application of biotechnology in paper industry.

3 a How restriction enzymes are used as tool in genetic engineering?

OR

b Describe the role of plasmids as vectors in rDNA technology.

4 a Bring out the steps involved in the isolation of genes.

OR

b Trace the steps involved in the construction of CDNA library.

5 a Highlight the role of biotechnology in pollution control.

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b Give an account of biotechnology and IPR.

**SECTION -B (45 Marks)**

Answer any **THREE** questions

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

6 Write an essay on enzyme immobilization and micro encapsulation technology

7 Write an account on biofertilizers and bioinsecticides.

8 Analyze the procedures and applications of the following :

(i) AGE (ii) DNA Sequencing

9 Discuss the PCR technology in detail.

10 Write note on : (i) Biodegradation (ii) Patenting of organisms

**Z-Z-Z**

END