

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2018  
(Third Semester)

Branch -**ZOOLOGY**

**BIOTECHNOLGY**

Time: Three Hours

Maximum: 75 Marks

Answer **ALL** questions

**ALL** questions carry **EQUAL** Marks (5x15 = 75)

- 1 a Describe the principle and applications of blotting techniques.  
OR  
b Explain the principle and applications of RFLP and PCR.
- 2 a Give a detailed account on cloning vector based on E. coli PBR 322 and bacteriophage.  
OR  
b Write a detailed account on cloning vector for yeast and Agrobacterium tumefaciens. ,
- 3 a Write an essay on organ culture and whole embryo culture.  
OR  
b Write an essay on embryo transfer.
- 4 a Give an account on primary and secondary metabolites.  
OR  
b Explain in detail biopesticides and biofertilizers.
- 5 a Highlight the applications of biotechnology in agriculture, medicine and food science.  
OR  
b Discuss elaborately genetically modified organism (GMO's).

**Z-Z-Z**

END