

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2017
(Sixth Semester)

Branch - **MICROBIOLOGY**

APPLIED BIOTECHNOLOGY

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks!)

Answer **ALL** questions

ALL questions carry **EQUAL** marks (10x2 = 20)

- 1 T- DNA.
- 2 Knock out mice.
- 3 HGH.
- 4 Trademark.
- 5 Subtilisin.
- 6 Dolly.
- 7 Callus Culture.
- 8 pTOM 5.
- 9 . Pedigree
- 10 Recombinant IFNS

SECTION - B (25 Marks!)

Answer **ALL** Questions

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

- 11 a Brief on plant tissue culture methods.
OR
b Write short notes on transgenic Cattle.
- 12 a What is IPR?
OR
b Explain gene transfer by microinjection .
- 13 a List the applications of DNA microarray.
OR
b Write brief notes on protein engineering.
- 14 a What is the principle of applications of PCR/OLA.
OR
b Explain the principle behind FISH.
- 15 a Explain Ex-vivo gene therapy with an example.
OR
b Write short notes on (i) GM foods (ii) Bio ethics.

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

- 16 Explain the organization of Ti plasmid & add notes on T-DNA transfer of integration.
- 17 Give an account on the culture media for animal cells.
- 18 Explain the production of recombinant vaccines.
- 19 Discuss the diagnostic application of monoclonal antibodies.
- 20 Give an account on the development of biotechnology in 20th century.