PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS) 14BcV)q

BSc DEGREE EXAMINATION MAY 2017
(Fifth Semester)

Branch - **BIOCHEMISTRY**

TISSUE CULTURE & BIOTECHNOLOGY

Time : Three Hours Maximum : 75 Marks

SECTION-A (20 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (10x2 = 20)

1 What is suspension culture?
2 Define somatic hybrids.
3 Write a note on TMV.
4 What is herbiside resistant plant?
5 Define cell lines. Give example.
6 - What are the viral vectors used for ATC?
7 Define gene therapy.
8 What is hybridoma technology?
9 Define Embryo transfer.
10 What is antibody engineering?

SECTION - B (25 Marks!
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5x5 = 25)

11 a Write about media composition for PTC.
OR
b What are the methods for protoplast fusion?

12 a Write about electroporation technique for gene transfer.
OR
b Give note on cytoplasmic male sterility.

13 a Write about cell transformation.
OR
b Give an account on Retroviral vectors.

14 a Explain about recombinant protein production by rDNA technology.
OR
b Give various applications of monoclonal antibodies.

15 a Explain about IVF techniques.
OR
b How is pharmaceutical drugs produced by using Biotechnology?

SECTION - C (30 Marks)
Answer any **THREE** Questions
ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

16 Discuss in detail about haploid production.
17 How are plant viruses used as cloning vectors for PTC?
18 Write about the methods of production of pest resistance and stress resistant plant.
19 Discuss in detail about vaccine production by rDNA technology.
20 Explain in detail about Embryo transfer method for transgenic animals.