PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2019
(Sixth Semester)

Branch - **BIOTECHNOLOGY**

APPLIED ASPECTS OF BIOTECHNOLOGY

Time : Three Hours Maximum : 75 Marks

SECTION-A (20 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (10 x 2 = 20)

1 Define Nanotubes.
2 What is an atom?
3 Write a notes on origin of stem cells.
4 Comment on Xenograft.
5 What is aptamers?
6 Define RNA interference.
7 What is tissue engineering?
8 Write notes on Skin Grafting.
9 What is bioenergy?
10 Explain about fuel cells.

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

11 a Write a note on dendrimers.
OR
b List out the applications of nanoparticle in cancer therapeutics.

12 a Comment on cloning and its significance.
OR
b Write a note on bone marrow transplantation.

13 a Write a note on DNA nanobots & its clinical applications.
OR
b Explain about protein based therapy and its uses.

14 a Describe polymeric implant materials in brief.
OR
b Write a note on artificial organs.

15 a How will you produce biohydrogen from waste material?
OR
b Write a note on polymer electrolytes.

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

16 Give an account on carbon nanotubes and its applications in biotechnology.

17 Give an account on applications of stem cells in treating cardiac diseases.

18 Write an essay on RNA based therapy for cancer.

19 What are the different types of bioreactors used to culture hepatocytes?

20 Describe in detail about dark fermentation.