

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2018
(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 (10x2 = 20)

- 1 What is nanoparticles?
- 2 Write notes on micelles.
- 3 Define stem cells.
- 4 What is cloning?
- 5 Write notes on DNA nanobots.
- 6 What are nucleic acids?
- 7 What are artificial organs?
- 8 Explain bone grafts.
- 9 Define dark fermentation.
- 10 What are bioprocesses?

SECTION - B (25 Marks)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks (5x5 = 25)

- 11 a Explain the structure of atom.
OR
b Comment on top down approach.
- 12 a Write note on therapeutic cloning.
OR
b How will you isolate the stem cells?
- 13 a What are the symptoms for HIV.
OR
b Write notes on RNA therapy for cancer infection.
- 14 a How will you classify the biomaterials?
OR
b Write notes on cell based therapy.
- 15 a List out the types of biomass.
OR
b Mention about hydrogen gas production.

SECTION - C (30 Marks)

Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks (3x10 = 30)

- 16 Write an essay on basic concepts of nanoscience and technology.
- 17 Give an account an applications of stem cells in treating liver diseases.
- 18 Discuss on RNA therapy for cancer treatment
- 19 Explain about artificial skin products.
- 20 Give an account on biomass and its conversion for energy.