

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**BSc DEGREE EXAMINATION DECEMBER 2017
(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 (1 0 x 2 = 20)

- 1 What is Dendrimers?
- 2 What is Therapeutics?
- 3 What are pluripotent stem cells?
- 4 Define Therapeutics.
- 5 Explain therapeutic target.
- 6 Level of Radiation dose for cancer therapy.
- 7 What is bioreactor?
- 8 Comment on extracorporeal tissue.
- 9 What is biomass?
- 10 Explain bioenergy.

SECTION - B (25 Marks!)

Answer **ALL** Questions

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

- 11 a Write notes on AFM.
OR
b Describe top down approach.
- 12 a Explain bone marrow transplantation.
OR
b What are the different types of stem cells?
- 13 a Comment on nucleic acid aptamers.
OR
b Write notes on inference of RNA.
- 14 a Explain cell based therapy.
OR
b Comment on artificial skin product.
- 15 a Describe dark fermentation.
OR
b List out the sources of biomass.

SECTION - C (30 Marks)

Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks (3 x 1 0 = 30)

- 16 Give an account on application of nanoparticles in cancer detection.
- 17 Discuss on application of stem cells in treating liver diseases.
- 18 Write an essay on therapeutic targets for Alzheimer's.
- 19 What are the bioreactors used to culture hepatocytes?
- 20 Give an account on bioprocess for hydrogen gas production.