

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2023
(Fifth Semester)

Branch – BIOTECHNOLOGY

ENVIRONMENTAL BIOTECHNOLOGY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 This factor contributes to the carbon cycle.

(i) fossil fuel combustion	(ii) respiration
(iii) photosynthesis	(iv) all of these
- 2 Initially which energy was approved as a non-polluting way for generating electricity?

(i) Water energy	(ii) Nuclear energy
(iii) Solar energy	(iv) Soil energy
- 3 Which of the following solid wastes describes the term 'Municipal Solid Waste'?

(i) Toxic	(ii) Hazardous
(iii) Non-toxic	(iv) Non-hazardous
- 4 Which of the following is the main source of eutrophication?

(i) Effluent quality	(ii) Nitrogen
(iii) Salty water	(iv) Pure water
- 5 When did The Environment (Protection) Act, 1986, come into force?

(i) 01 April 1986	(ii) 01 March 1986
(iii) 01 May 1986	(iv) 19 November 1986.

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a How does production of methane by a specialized group of methanogenic archaea represent a diversion to normal cycling of carbon?
OR
- b Describe the science fields that depend on remote sensing.
- 7 a State what happens to the microbes after the oil has been consumed.
OR
- b How do pesticides and fertilizers affect human health?
- 8 a Explain the 3 'R's in solid waste management.
OR
- b Summarize the provisions made by local authorities for solid waste management?
- 9 a We realise that plastics, being non-biodegradable, are an environment hazard. However, while discussing the choking of sewage drains by plastics, why do we only talk about plastic carry bags and not of other plastic products?
OR
- b How do microorganisms make biofilms? Give examples.

Cont...

- 10 a Narrate on why EPA is called Umbrella Act?
OR
b Outline the aims and objectives of the EPA.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Discuss about the Climate Change and its influence in India.
OR
b Elucidate on Indian biodiversity Act.
- 12 a Examine about the agriculture perspectives of pollution in industrial and rural areas.
OR
b Summarize on Nuclear pollution and its impact.
- 13 a Highlight the sources and consequence of waste disposal.
OR
b Categorize on the classification of Domestic and Industrial wastes.
- 14 a Enumerate on Biodegradable Plastics.
OR
b Outline about the Biofilm preparation from microorganism.
- 15 a Discuss about the Environmental Laws.
OR
b Highlight on the holistic approach of environmental protection and conservation.

Z-Z-Z

END