

(6 pages)

Reg. No. :

Code No. : 20379 E Sub. Code : AEBO 64

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2023

Sixth Semester

Botany

Major Elective - II — ENVIRONMENTAL
BIOTECHNOLOGY - II

(For those who joined in July 2020 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The area of human settlement on the earth is called
(a) Lithosphere
(b) Anthrosphere
(c) Hydrosphere
(d) Geosphere

2. The determination of pollutants in marine water and fresh water using bioluminescence test was first used by
(a) Neelson and hasting
(b) Mendel
(c) Bentham
(d) Ramaiah and Chandramohan
3. RDF is the other name for this
(a) Hydrogen (b) Bio gas
(c) Ethanol (d) Biodiesel
4. Euphorbia tirucalli belongs to the family
(a) Rubiaceae (b) Orchidaceae
(c) Malvaceae (d) Euphorbiaceae
5. This method is used for the reclamation of acidic soils
(a) Liming (b) Algalisation
(c) Gypsum (d) Green manuring
6. Soil erosion is caused by
(a) Excess of rain (b) Deforestation
(c) Wind (d) All the above

7. Which of the following microbe is used in bioremediation?
- (a) Clostridium
 - (b) Pseudomonos
 - (c) Methanobacterium
 - (d) Bacteriocide
8. An example for hydrocarbon
- (a) Steam (b) Petrol
 - (c) Wax (d) Calcium
9. Acid rain is caused by
- (a) Sulphur dioxide and nitrogen dioxide
 - (b) Methane
 - (c) Carbon dioxide
 - (d) Carbon monoxide
10. The major cause of the thinning of ozone layer is the use of _____
- (a) Hydro chloro fluoro carbons
 - (b) Chloro fluoro carbons
 - (c) (a) and (b)
 - (d) None of these

PART B — (5 × 5 = 25 marks)

Answer ALL questions choosing either (a) or (b).
Each answer should not exceed 250 words.

11. (a) Write short notes on hydrosphere.
- Or
- (b) Explain the role of biosensors in pollution monitoring.
12. (a) Write notes on uses of biogas.
- Or
- (b) Write notes on uses of hydrogen gas.
13. (a) Explain the primary and secondary treatment of sewage.
- Or
- (b) Write short notes on water recycling.
14. (a) List out the differences between biodegradation and bioremediation.
- Or
- (b) Give a brief account on biodegradation of hydrocarbons.

16. (a) Explain global warming.

Or

(b) What are the effects of ozone depletion on human beings?

PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Describe the various biotechnological methods that help to measure pollution.

Or

(b) Write an essay about the aims of environmental biotechnology.

17. (a) Describe the structure of biogas plant.

Or

(b) Give a detailed account on petroleum plants.

18. (a) Write an essay on soil conservation.

Or

(b) Explain sustainable agricultural management.

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19. (a) Discuss about solid waste management.

Or

(b) Write an essay on phytoremediation.

20. (a) Write an essay on the causes of green house effect and the measures to control it.

Or

(b) What is remote sensing? Write about the applications of remote sensing in ecology.

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