

CARMEL COLLEGE OF ARTS, SCIENCE & COMMERCE
NUVEM - GOA
SEMESTER END EXAMINATION, NOVEMBER 2022

Semester: **I B.A. & B.Sc.** Course: **GE (Botany) - BOG101: Environmental Biotechnology**
Total marks: **80** Date: **30/11/2022** Duration: **2 Hours** Total No. of Pages: **01**

Instructions: 1. All questions are compulsory; however, internal choice is available.
2. Figures to the right indicate full marks.

- Q. I.** Answer **any four** of the following: (4 marks x 4 = 16)
a. What are the factors affecting Upflow Anaerobic Sludge Blanket Reactor (UASB)?
b. Mention the advantages and disadvantages of a rotating disc.
c. What are the effects of acid rain?
d. Explain the term 'bio/geo-magnification' with a suitable example.
e. Differentiate between intrinsic and accelerated bioremediation.
f. What are degradative plasmids?
- Q. II.** Answer **any four** of the following: (4 marks x 4 = 16)
1. What are biopesticides? List the advantages of biopesticides.
2. What is sustainable development? Give any two economic functions of the environment.
3. Write a note on Gross National Productivity (GNP).
4. Give the salient features of Air Pollution Act, 1981.
5. State the role played by women in protection of the environment.
6. Give the salient features of Forest Conservation Act, 1980.
- Q. III.** A. Describe the various methods to measure air pollution. (6)
OR
A. Discuss the causes and effects of water pollution. (6)
B. What are xenobiotic compounds? Add a note on bioremediation of xenobiotic compounds. (6)
- Q. IV.** A. Describe the scheme for treatment of waste water from sugar industry. (6)
OR
A. Explain the principle and working of the trickling filter. (6)
B. Write a note on 'Greenhouse effect'. (6)
- Q. V.** A. What is bioleaching? Add a note on its process and types. (6)
OR
A. Write briefly on World Trade Organisation in context to the environment. (6)
B. Explain positive and negative externalities with respect to economics of pollution control giving suitable examples. (6)
- Q. VI.** A. Write briefly on Ramsar Convention, 1971. (6)
OR
A. Give any twelve principles of the Stockholm Conference, 1972. (6)
B. Write a note on the Chilika Bachao Andolan. (6)