

**CARMEL COLLEGE OF ARTS, SCIENCE & COMMERCE FOR WOMEN,  
NUVEM-GOA**

**SEMESTER END EXAMINATION, JANUARY 2022**

**Semester: I B.A. & B.Sc.**

**Course name & Code: GE (Botany) - BOG101: Environmental Biotechnology**

**Max. Marks: 80**

**Date: /01/2022**

**Duration: 2 Hours**

**Total No. of Pages: 01**

**Instructions:** 1. All questions are compulsory.

2. Figures to the **right** indicate **maximum** marks allotted to the question.

3. Draw labelled diagrams **wherever** necessary.

**Q.1. Answer any four of the following: (4 x 4 = 16)**

- a. Write a note on ozone depletion.
- b. Explain the various sources of air pollution.
- c. Explain the activated sludge process in waste water treatment.
- d. Give 4 points of difference between oxidation pond and oxidation ditch.
- e. List the ill effects of pesticides on the environment.
- f. Write a note on inorganic phosphates as a xenobiotic compound.

**Q.2. Answer any four of the following: (4 x 4 = 16)**

- a. What are biopesticides? List the types of biopesticides.
- b. Write a note on Gross National Productivity (GNP).
- c. Give the salient features of the Wild Life Protection Act - 1972.
- d. State the purpose of the Ramsar convention - 1971.
- e. What is Corporate Social Responsibility (CSR)?
- f. State the role played by women in protection of the environment.

**Q.3. A. Explain the biotechnological approaches for management of the environment. (6)**

**OR**

- A. Explain the working of a rotating biological contactor. (6)
- B. What are xenobiotic compounds? Write a note on the same. (6)

**Q.4. A. Describe the various methods to measure water pollution. (6)**

**OR**

- A. Explain the working of an upflow anaerobic sludge blanket reactor with the help of a diagram. (6)
- B. Describe the scheme for treatment of waste water from tanneries. (6)

**Q.5. A. Write briefly on bioleaching and biomining. (6)**

**OR**

- A. Explain the concept of 'Tragedy of Commons'. (6)
- B. Explain positive and negative externalities with respect to economics of pollution control giving suitable examples. (6)

**Q.6. A. Give any twelve principles of the Stockholm conference - 1972. (6)**

Q.6. A. Give any twelve principles of the Stockholm conference – 1972.

(6)

OR

A. Explain the objectives of the National Environmental Policy – 2006.

(6)

B. Write a note on the Chilika Bachao Andolan.

(6)

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