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Roll No.

PAPER ID—16151

**B.Tech. (Computer Science and
Engineering (Cyber Security))**

EXAMINATION, 2024

(First Semester)

BASICS OF ENVIRONMENTAL SCIENCES

Code : ENV-101

Time : 2 Hours

Maximum Marks : 50

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

1. (i) Define Eco-system.
- (ii) What are trophic levels ?
- (iii) What is food chain ?
- (iv) What are the reasons for soil salinity ?
- (v) Give two examples of renewable exhaustible natural resource.
- (vi) What are secondary air pollutants ?
- (vii)attached to hemoglobin in blood for a long time, it accumulates and reduces the oxygen carrying capacity of blood.
- (viii) World environment day is celebrated on which day ?
- (ix) Define disaster management.
- (x) The unit used to measure noise is
..... $10 \times 1 = 10$

Unit I

2. (a) Explain the importance of Environmental Studies. Elaborate the role of society to halt and reverse Environmental degradation. 6

- (b) Comment on the negative role of society in degrading the Environment. 4
3. What are various natural resources ? Also explain role of individual in conservation of natural resources. 10

Unit II

4. (a) What are the various components of ecosystem ? Explain the role of these components in the functioning of any *one* ecosystem you have studied. 5
- (b) Explain characteristics features, structure and function of forest ecosystem. 5
5. (a) What is food web ? What is its significance ? 5
- (b) Explain characteristics features, structure and function of Grassland ecosystem. 5

Unit III

6. (a) Define Water Pollution. Explain its causes and control measures. 5

- (b) Define Floods. Explain its types and management strategies. 5
7. (a) Write a note on 'Noise Pollution'. 5
- (b) Define Landslide. Discuss its types, causes and prevention measures. 5

Unit IV

8. (a) Explain various urban problems related to energy. 3
- (b) What are the main causes of ozone depletion ? Explain. 4
- (c) How can sustainable development be achieved ? 3
9. (a) What do you understand by Watershed ? Why is watershed management necessary ? Discuss the methods of watershed management. 6
- (b) Discuss the salient features of Environment Protection Act, 1986. 4

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B. Tech. EXAMINATION, 2024

(First Semester)

**COMPUTER SCIENCE AND ENGINEERING
(CYBER SECURITY)**

Code : ENV-101

Basics of Environmental Science

Time : 3 Hours

Maximum Marks : 70

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all. Q. No. 1 (Unit I) is compulsory. Attempt *four* more questions from Unit II.

Unit I

1. Write short notes on the following :

- (i) Salinity 3
- (ii) Methods to improve ground water 3
- (iii) Disadvantages of deforestation 3
- (iv) Renewable and non-renewable resources 3
- (v) Disadvantages of fertilizers and pesticides. 2

Unit II

2. (a) Explain the Aquatic eco systems in detail. 7
- (b) Explain Producers, consumers and decomposers in eco- system. 7
3. (a) Define Air pollution. Discuss its causes, effects and control measures in detail. 7
- (b) Define Earthquake. Explain its reasons and how can we minimise its effect. 7

4. (a) Explain Wildlife Protection Act in detail. 7
- (b) Explain Forest conservation Act in detail. 7
5. Define Nuclear hazards. What are its causes and effects ? Suggest some control measures also. 14
6. Define water conservation. Explain rain water harvesting and its process in detail. 14
7. Explain global warming. What are its causes ? Suggest solutions to reduce global warming. 14

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B.Tech. EXAMINATION, 2023

(First Semester)

**COMPUTER SCIENCE AND ENGINEERING
(CYBER SECURITY)**

Code : EVS-101

Basics of Environmental Science

Time : 3 Hours

Maximum Marks : 50

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : There are seven questions in all and each question will be of 10 marks. The paper is divided into two units, Unit I and Unit II. Unit I consisting of five short answer type questions covering entire syllabus is

compulsory. Attempt any *four* questions out of six questions from Unit II.

Unit I

1. (a) What is climate change ?
(b) Discuss the multidisciplinary nature of environmental studies
(c) What do you understand by food chains ?
(d) Briefly describe the effects of water pollution.
(e) Define Minerals. What are the uses of minerals ? 2×5=10

Unit II

2. Describe the biotic and abiotic components of an ecosystem. 10
3. (a) How energy flow in an ecosystem ?
Explain energy flow models used for an ecosystem.

(b) Define ecological pyramids and explain various types of pyramids with suitable examples. 5, 5

4. (a) What is the greenhouse effect ? Mention some of the major greenhouse gases. Discuss the impacts of global warming on the environment.

(b) What is meant by acid rain ? How does it form ? What are its major impacts ? 5,5

5. (a) What is noise pollution ? Discuss the major causes, effects and control measures of noise pollution ?

(b) How we can conserve rainwater ? Briefly explain the rainwater harvesting techniques. 5,5

6. (a) Write a brief note on Water Act, 1974.

(b) Write a note on the issues involved in enforcement of environmental legislations.

5,5

7. (a) How would environmental awareness in public help us to protect our environment ?

(b) Write a note on the conflicts over water around us.

5,5