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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

B.Tech

SEM: III - THEORY EXAMINATION (2024- 2025)

Subject: Environmental Science

Time: 2 Hours

Max. Marks: 50

General Instructions:

IMP: Verify that you have received the question paper with the correct course, code, branch etc.

1. This Question paper comprises of **three Sections -A, B, & C**. It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.

2. Maximum marks for each question are indicated on right -hand side of each question.

3. Illustrate your answers with neat sketches wherever necessary.

4. Assume suitable data if necessary.

5. Preferably, write the answers in sequential order.

6. No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.

SECTION-A

15

1. Attempt all parts:-

- 1-b. The natural place of an organism or community is known as (CO1, K1) 1
- (a) Niche
- (b) Biome
- (c) Habitat
- (d) Habit
- 1-a. In which of the following years, was the Environment(Protection) Act passed by the Government of India (CO5, K2) 1
- (a) 1986
- (b) 2000
- (c) 2010
- (d) 1900
- 1-c. The forest cover in our country has recently increased due to: (CO2, K1)) 1
- (a) Increase in natural forest growth
- (b) Increase in net sown area
- (c) Plantation by different agencies
- (d) None of the above
- 1-d. Total number of hotspots in india are (CO3, K1) 1
- (a) 4
- (b) 145

(c) 245

(d) 345

- 1-e. Below which of the following pH is rain regarded as 'acid rain'? (CO4, K2)) 1
- (a) 5.6
- (b) 8
- (c) 7.6
- (d) 7.9

2. Attempt all parts:-

- 2.a. How are producers defined in ecological terms? (CO1, K1) 2
- 2.b. Define the term nonrenewable energy? Name two nonrenewable energy (CO2, K1) 2
- 2.c. Define in- situ conservation of biodiversity? Write down the example of in situ conservation of biodiversity? (CO3, K2) 2
- 2.d. Name the causes and effects of greenhouse effect? (CO4, K1) 2
- 2.e. What is a bioindicator? Write down the examples of bioindicators? (CO5, K2) 2

SECTION-B

15

3. Answer any three of the following:-

- 3-a. Describe the different layers of the atmosphere and write down their respective height and temperature range? (CO1K1) 5
- 3.c. Expand the term EPA? Discuss the salient features of EPA? (CO5, K5) 5
- 3-b. Discuss the importance of forest resources? Discuss the causes and effects of deforestation India CO2, K1) 5
- 3.d. Define the term ecological succession? Differentiate between primary and secondary succession? Name the different of ecological succession? (CO3, K1) 5
- 3.e. Define the term ozone layer depletion? Discuss the causes and effects of ozone layer depletion? (CO4, K2) 5

SECTION-C

20

4. Answer any one of the following:-

- 4-a. Define the term bio geo chemical cycle? Explain the mechanism of carbon cycle (CO1, K1) 4
- 4-b. Discuss the different steps of nitrogen cycle in environment? (CO1, K1) 4

5. Answer any one of the following:-

- 5-a. Discuss the two advantages and two limitations of wind energy? (CO2, K1) 4
- 5-b. Define the term minerals? Write down the uses of minerals? Name two problems related to mineral extraction in nature (CO2, K1) 4

6. Answer any one of the following:-

- 6-a. Define species biodiversity and ecosystem biodiversity? Discuss the benefits of biodiversity? (CO3, K1) 4

- 6-b. Discuss the causes to the loss of biodiversity? Discuss the different techniques of biodiversity conservation? (CO3, K2) 4
7. Answer any one of the following:-
- 7-a. Describe the chemical processes involved in the formation of acid rain. What are the primary sources of the pollutants that cause acid rain, and what are its environmental impacts? (CO4, K1) 4
- 7-b. Discuss the ill effects of solid waste? Discuss the different disposal methods of solid waste materials? (CO4,K1) 4
8. Answer any one of the following:-
- 8-a. Define the term environmental impact assessment? Discuss the different steps of environmental impact assessment? (CO5, K2) 4
- 8-b. Explain the role/objectives of women education regarding the environmental protection? Name any 2 schemes are available for women empowerment in India? (CO5, K2) 4

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