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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 (2021 - 2022)

Subject: Environmental Science

Time: 03:00 Hours

Max. Marks: 50

General Instructions:

1. All questions are compulsory. It comprises of three Sections A, B and C.
 - Section A - Question No- 1 is objective type question carrying 1 mark each & Question No- 2 is very short type questions carrying 2 marks each.
 - Section B - Question No- 3 is Long answer type - I questions carrying 5 marks each.
 - Section C - Question No- 4 to 8 are Long answer type - II questions carrying 4 marks each.
 - 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.a. | Which of the following is an autotrophic component of a pond ecosystem? (CO1) | 1 |
| | <ol style="list-style-type: none"> 1. Fungi 2. Fishes 3. Submerged plants 4. Water | |
| 1.b. | The main constitute of CNG is (CO2) | 1 |
| | <ol style="list-style-type: none"> 1. Methane 2. Ethane 3. Propane 4. Butane | |
| 1.c. | "Biodiversity" means "the variety of life on (CO3) | 1 |
| | <ol style="list-style-type: none"> 1. Earth 2. Atmosphere 3. Water bodies 4. Biosphere | |
| 1.d. | One of the best solution to get rid of non-biodegradable wastes is (CO4) | 1 |
| | <ol style="list-style-type: none"> 1. Burning 2. Dumping 3. Land filling 4. Recycling | |
| 1.e. | Wild life Protection Act (CO5) | 1 |
| | <ol style="list-style-type: none"> 1. 1972 2. 1987 3. 1989 4. 1990 | |

2. Attempt all parts:-

- | | | |
|------|---|---|
| 2.a. | List all the segments of environment. (CO1) | 2 |
| 2.b. | Name the different types of coal? (CO2) | 2 |
| 2.c. | Define the term Psamosere? (CO3) | 2 |
| 2.d. | Name some equipments used in air pollution control? (CO4) | 2 |
| 2.e. | Write short notes on Chipko movement? (CO5) | 2 |

SECTION B

15

3. Answer any three of the following:-

- | | | |
|------|--|---|
| 3.a. | Explain hydrological cycle and discuss its importance in evolution and sustenance of biological life on Earth. (CO1) | 5 |
| 3.b. | Describe potential of hydrogen as a future source of energy. (CO2) | 5 |
| 3.c. | Describe the 10 various categories of IUCN red list and the status of threatened species? (CO3) | 5 |
| 3.d. | Define acid rain. Write mechanisms involved in the formation of acid rain. (CO4) | 5 |
| 3.e. | Discuss the concept of sustainable development. Write short notes on objectives and importance of sustainable development. (CO5) | 5 |

SECTION C

20

4. Answer any one of the following:-

- | | | |
|------|--|---|
| 4-a. | Define and explain the biotic and abiotic components of grass land ecosystem. (CO1) | 4 |
| 4-b. | What is an inverted ecological pyramid and in which ecosystems such inverted pyramids may be obtained. (CO1) | 4 |

5. Answer any one of the following:-

- | | | |
|------|--|---|
| 5-a. | Differentiate between renewable and non renewable natural resources. (CO2) | 4 |
| 5-b. | Discuss the fluoride and arsenic problems in drinking water. (CO2) | 4 |

6. Answer any one of the following:-

- | | | |
|------|--|---|
| 6-a. | Describe approaches for ex-situ conservation and in situ conservation as a strategy for biodiversity conservation. (CO3) | 4 |
| 6-b. | What is ecological succession? Describe steps involve in ecological succession. (CO3) | 4 |

7. Answer any one of the following:-

- | | | |
|------|---|---|
| 7-a. | Write down the effects of air pollution on human health and environment . (CO4) | 4 |
| 7-b. | What is meant by ozone shield? Name four ozone depleting substances. (CO4) | 4 |

8. Answer any one of the following:-

- | | | |
|------|--|---|
| 8-a. | Write down the objectives and drawbacks of Forest Act. (CO5) | 4 |
| 8-b. | What do understand by EIA? Write involve steps in procedure of EIA . (CO5) | 4 |