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Subject Code:- ANC0402

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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

B.Tech

SEM: IV - THEORY EXAMINATION (2022-2023 .)

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-a. Which one is sedimentary cycle? (CO1) 1
- (a) Oxygen cycle
 - (b) Hydrogen cycle
 - (c) Nitrogen cycle
 - (d) Phosphorus cycle
- 1-b. Identify the non-renewable energy resource from the following (CO2) 1
- (a) Coal
 - (b) Fuel cells
 - (c) Wind power
 - (d) Wave power
- 1-c. _____ is defined as the number of species represented in a specific region, landscape or an ecological community (CO3) 1
- (a) Coevolution
 - (b) Commensalism

- (c) Species richness
- (d) Population density
- 1-d. Which of the following is a non-point source of water pollution (CO4) 1
- (a) Factories
- (b) Urban and sub urban lands
- (c) Sewage water plant
- (d) All of the above
- 1-e. Which of the following options is not incorporated as sustainable development parameters? (CO5) 1
- (a) Gender disparity and diversity
- (b) Inter and intra-generational equity
- (c) Carrying capacity
- (d) None of the above

2. Attempt all parts:-

- 2.a. Explain the terms Food chains and Food webs. (CO1) 2
- 2.b. How biogas is produced in rural areas ? (CO2) 2
- 2.c. What features make a community stable? (CO3) 2
- 2.d. What is water pollution? (CO4) 2
- 2.e. Write short notes on the formal environmental education? (CO5) 2

SECTION B

15

3. Answer any three of the following:-

- 3-a. What is the mechanism to maintain balanced ecosystem? (CO1) 5
- 3-b. What are the three types of energy? How the Ocean Thermal Exchange Capacity (OTEC) is operating? (CO2) 5
- 3.c. Enlist the threats to biodiversity and describe in brief (CO3) 5
- 3.d. Describe the causes, effects and measures of land pollution . (CO4) 5
- 3.e. Explain the salient features of EPA? Discuss the strategy adopted by Government for the protection of environment. (CO5) 5

SECTION C

20

4. Answer any one of the following:-

- 4-a. What do you understand by pyramid and pyramid of energy is always upright triangle? (CO1) 4
- 4-b. Draw a schematic representation of the structure of an ecosystem. (CO1) 4

5. Answer any one of the following:-

- 5-a. Explain the importance of rainfall as main source of water. (CO2) 4
- 5-b. Write explanatory note on fluoride problem in drinking water. (CO2) 4

6. Answer any one of the following:-

- 6-a. Discuss the important wildlife projects of India. (CO3) 4
- 6-b. What is biodiversity? Discuss the importance of biodiversity? (CO3) 4

7. Answer any one of the following:-

- 7-a. What are smog and photochemical smog ? How does this affect the plants? . (CO4) 4
- 7-b. What are the control measures used for controlling water pollution? (CO4) 4

8. Answer any one of the following:-

- 8-a. What do you understand by the term bioindicators and discuss their role in ecosystem ?(CO5) 4
- 8-b. Write short notes on the functions of State Pollution Control Board regarding Water(Prevention)Act. (CO5) 4