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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 (2021 - 2022)

Subject: Environmental Science

Time: 3 Hours

Max. Marks: 50

General Instructions:

1. The question paper comprises three sections, A, B, and C. You are expected to answer them as directed.
2. Section A - Question No- 1 is 1 mark each & Question No- 2 carries 2 mark each.
3. Section B - Question No-3 is based on external choice carrying 5 marks each.
4. Section C - Questions No. 4-8 are within unit choice questions carrying 4 marks each.
5. 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. Ammonification is the formation of (CO1) 1
- (a) Ammonia from nitrates by decomposers
 - (b) Ammonia from nitrogen
 - (c) Ammonia from amino acids
 - (d) Ammonia from nitrates by nitrogen fixers
- 1-b. Hydroponics is a technique of growing crops without _____ (CO2) 1
- (a) Water
 - (b) Air
 - (c) soil
 - (d) Sunlight
- 1-c. The community which begins succession in a habitat is designated as (CO3) 1
- (a) Seral community
 - (b) Biotic community
 - (c) Ecosere
 - (d) Pioneer community
- 1-d. Excess Fluoride in drinking water is likely to cause (CO4) 1
- (a) Blue baby syndrome
 - (b) Fluorosis
 - (c) Cancer
 - (d) Intestinal irritation
- 1-e. When the consumption of natural resources are equal to nature's ability to replenish then sustainability is (CO5) 1
- (a) Not sustainable
 - (b) Steady state economy
 - (c) Environmentally sustainable
 - (d) none of the above

2. Attempt all parts:-

- 2.a. Name the four segment of environment? (CO1) 2
- 2.b. Name the different types of coal? (CO2) 2
- 2.c. State a difference between endemic and exotic species. (CO3) 2
- 2.d. What is the full form of three R? How they are beneficial for environment protection? (CO4) 2

2.e. Define bioindicators. How they work to check the environmental conditions? (CO5) 2

SECTION B

15

3. Answer any three of the following:-

3-a. Draw the diagram of pyramid of biomass, pyramid of number and pyramid of energy? (CO1) 5

3-b. With the help of diagram discuss biogas production in India? (CO2) 5

3.c. Write down the role of biosphere reserve, sanctuaries, and national park regarding to biodiversity conservation? (CO3) 5

3.d. Discuss the different methods of solid waste disposal? (CO4) 5

3.e. Environmental education can play an important role in environmental protection? Justify it? (CO5) 5

SECTION C

30

4. Answer any one of the following:-

4-a. Differentiate between renewable and non-renewable natural resources? (CO1) 4

4-b. Discuss the different steps of Nitrogen cycle? (CO1) 4

5. Answer any one of the following:-

5-a. Discuss the limitations of solar and wind energy? (CO2) 4

5-b. Describe potential of hydrogen as a future source of energy. (CO2) 4

6. Answer any one of the following:-

6-a. List reasons responsible for the depletion of wildlife? (CO3) 4

6-b. Differentiate between In situ and ex situ conservation method of biodiversity? (CO3) 4

7. Answer any one of the following:-

7-a. Write three basic characteristics of a modern landfill site. What are the reasons they are used? (CO4) 4

7-b. What is Eutrophication? Explain its consequences on the life of plants & animals living in such water? (CO4) 4

8. Answer any one of the following:-

8-a. What do understand by EIA? Write involve steps in procedure of EIA. (CO5) 4

8-b. Write short notes on the drawback of the wildlife Act? Discuss the objectives of Wild life Act? (CO5) 4