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B.TECH (SEM-II) THEORY EXAMINATION 2017-18 **ENVIRONMENT & ECOLOGY**

Time: 3 Hours Total Marks: 100

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief.

 $2 \times 10 = 20$

- Enumerate the term ecology and ecosystem. a.
- What do you mean by α , β , γ diversity? b.
- Define the term biogeochemical cycles? c.
- Classify the natural resources. d.
- e. What do you mean by rill and gully erosion?
- Name the gas produced from biogas. f.
- What are the main causing agents of Eutrophication of water bodies? g.
- h. What do you mean by point and diffused source of water pollution
- Differentiate between nuclear fusion and fission reaction. i.
- Write the permissible limit of fluoride in drinking water. į.

SECTION B

2. Attempt any *three* of the following:

 $10 \times 3 = 30$

- Define the term environment. Write a note on atmospheric segments with neat sketch. a. Discuss the main activities taking place in each of them.
- What do you mean by balanced ecosystem? Describe the main components of b. ecosystem with suitable examples.
- c. Classify solid wastes? Discuss various disposal methods with merits and demerits
- Classify the smog and discuss the reaction behind smog formation. d.
- What do you mean by the term EIA? Describe the various steps used in EIA process e.

SECTION C

3. Attempt any *one* part of the following:

 $10 \times 1 = 10$

- What are the major threats of biodiversity? Discuss the strategies for biodiversity (a) conservation.
- (b) How hydrogen act as an alternative source of energy. Discuss the mechanism of hydrogen fuel cell with advantage and disadvantage.

4. Attempt any *one* part of the following:

 $10 \times 1 = 10$

- Discuss the unidirectional flow of energy with suitable diagram. (a)
- Discuss various steps involved in carbon cycle. Draw a neat sketch of carbon cycle and (b)

5.

 $10 \times 1 = 10$

Attempt any one part of the following: Norther Confinence (a) Discuss the phenomena Discuss the phenomenon of global warming. How it poses adverse effect on surrounding. (b) Why acid rain occurs. Discuss the various effects of acid rain on surroundings. Suggest remedial measures to control acid rain.

6. Attempt any *one* part of the following:

 $10 \times 1 = 10$

- (a) Discuss the source of water pollutants? Define the various step used in waste water treatment plant.
- (b) Discuss the term disaster management. Write a note on flood and its control.

7. Attempt any *one* part of the following:

 $10 \times 1 = 10$

- (a) What are the major objectives of NGO? Discuss the main function of NGO in the field of environment.
- (b) Write a detail note on environmental pollution act with its objectives.