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Paper Id:

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Sub Code: RAS 402

Roll No.

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B TECH
(SEM IV) THEORY EXAMINATION 2017-18
ENVIRONMENT AND ECOLOGY

Time: 3 Hours

Total Marks: 70

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief.

$2 \times 7 = 14$

- What do you understand by the term "Biotic and Abiotic" with examples.
- Explain the term "Pollutant". Give examples.
- What is biomagnification?
- Define food chain with example?
- Explain flood and its main causes?
- Define urban sprawling?
- Define the term ecology and ecosystem.

SECTION B

2. Attempt any *three* of the following:

$7 \times 3 = 21$

- What is meant by environment? Enumerate and discuss its various components.
- What is ecological pyramid. Explain different types of ecological pyramids for different ecosystem with suitable examples.
- What is global warming? What are its causes & effects? Discuss the measures to control it.
- What is water pollution? Explain the various causes, effects and controlling measures of water pollution.
- Define biodiversity. Explain genetic diversity, species diversity and ecosystem diversity. Write the various importance of biodiversity.

SECTION C

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

$7 \times 1 = 7$

- What do you mean by solid waste? Describe various methods of solid waste disposal?
 - What is sustainable development. Describe the measures of sustainable development.
- Define ecology and ecosystem. Explain the role of producers, consumers and decomposers in an ecosystem.
 - Describe carbon cycle in detail.

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

7 x 1 = 7

a. (i). What do you mean by water borne disease? Discuss kinds of diseases, their cause and effect on human being.

(ii). Discuss the salient features of Environmental (Protection) Act, 1986.

b. (i). Explain the energy flow in the ecosystem.

(ii). Discuss the need for public awareness for the conservation and protection of the environment.

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

7 x 1 = 7

a. (i). "Hydrogen-the fuel of the future" explain it.

(ii). Explain the need and functions of NGO's for environmental conservation.

b. (i). Explain the principle and working of solar cell with diagram.

(ii). Explain the water (prevention and control of pollution) Act.

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

7 x 1 = 7

a. What is biomass energy? Explain the different methods of biogas production in India.

b. Discuss population explosion in Indian context. What are the major cause and effects of population explosion?

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

7 x 1 = 7

a. (i). What is noise pollution? Explain the different sources and effects of noise pollution.

(ii). Write a short note on nuclear energy.

b. (i). With the help of flow chart, describe the Environment Impact Assessment process.

(ii). Briefly discuss the fluoride problem in drinking water.