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Sub Code: RAS 402

Roll No. XXXXXXXXXX

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 x 7 = 14**

- (a). What do you understand by the term “Biotic and Abiotic” with examples.
- (b). Explain the term “Pollutant”. Give examples.
- (c). What is biomagnification?
- (d). Define food chain with example?
- (e). Explain flood and its main causes?
- (f) Define urban sprawling?
- (g). Define the term ecology and ecosystem.

SECTION B

2. Attempt any *three* of the following:**7 x 3 = 21**

- (a). What is meant by environment? Enumerate and discuss its various components.
- (b). What is ecological pyramid. Explain different types of ecological pyramids for different ecosystem with suitable examples.
- (c). What is global warming? What are its causes & effects? Discuss the measures to control it.
- (d). What is water pollution? Explain the various causes, effects and controlling measures of water pollution.
- (e). 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 x 1 = 7**

- a. (i). What do you mean by solid waste? Describe various methods of solid waste disposal?
(ii). What is sustainable development. Describe the measures of sustainable development.
- b. (i). Define ecology and ecosystem. Explain the role of producers, consumers and decomposers in an ecosystem.
(ii). 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.