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Dec-22-0099

# HS-102 (Environment & Ecology)

B.Tech-1st (CBCS)

**Time : 3 Hours** **Max. Marks : 60**

*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

**Note:** The question paper consists of five sections A, B, C, D and E. The candidates are required to attempt five questions in all, selecting one question from each section A, B, C, D and all subparts of section E.

## SECTION A

1. a) "Fossil fuels are depleting very fast and there is a little success in population stabilization". Comment and discuss in detail the alternative energy resources.

   b) How can we solve the world's food problem? (6+4)

2. a) What are the effects associated with over exploitation of forest resources?

   b) Describe various Indian conflicts of water. (6+4)

## SECTION B

3. a) What is succession? Describe the causes, trends and basic types of succession.

   b) What do you understand by ecosystem? Describe various components of an ecosystem giving suitable example. (6+4)

4. a) What is the value of biodiversity? Discuss in detail the direct and indirect values of biodiversity with suitable examples.

   b) Give an account of endangered and epidemic species of India. What reasons would you assign for their decline? (6+4)



## SECTION C

5. a) What are the powers and functions of Pollution control board?

   b) Why do International environmental treaties and policies failed to protect National environment? (6+4)

6. a) Describe in detail Water (prevention and control of pollution) Act 1974.

   b) Write down the key features of Rio declaration and various mechanism for its implementation. (6+4)

## SECTION D

7. a) What is toxicology? Give an account of harmful effects of physical and chemical toxicants on organisms.

   b) Give an account on the sources and effects of pesticides in water. (6+4)

8. a) Give an account of different stages of wastewater treatment.

   b) What are the sources and effects Municipal waste. (6+4)

## SECTION E

9. Write short answers of the following (10×2=20)

   i. Species diversity
   ii. Ectotoxicology
   iii. Heterotrophic succession
   iv. Petroplants
   v. Trophic levels
   vi. Eutrophication
   vii. National Park
   viii. Draught
   ix. Johannesburg Summit
   x. Biomedical Waste