

Roll No.

Total Pages : 3

63923

B.Sc. (Hons.) Physics, (2nd Semester)
ENVIRONMENTAL SCIENCES (EVS 101)

Time : 3 Hours]

[Max. Marks : 75

Notes:

- (i) *It is compulsory to answer all the questions (1.5 marks each) of Part-A in short.*
- (ii) *Answer any four questions from Part-B in detail.*
- (iii) *Different sub-parts of a question are to be attempted adjacent to each other.*

PART-A

1. (a) Define food web. How they are important in functioning of an ecosystem? (1.5)
- (b) What are salient features of a forest ecosystem? Explain its different types. (1.5)
- (c) What are the primary and secondary air pollutants? Give examples. (1.5)
- (d) Explain the process 'Biomagnification' with suitable example. (1.5)
- (e) Write a short note on 3R's approach for 'Solid Waste Management'. (1.5)
- (f) What are salient features of 'Kyoto Protocol'? (1.5)
- (g) Explain the term 'Acid Rain' and its effects. (1.5)
- (h) Differentiate endangered and endemic species. (1.5)

- (i) Explain the scope of Environmental Sciences. (1.5)
- (j) Describe the Population growth trend of our country India. Is it linear or exponential growth? Comment. (1.5)

PART-B

2. (a) Explain about multidisciplinary nature of Environmental Studies with the help of a flow diagram. (5)
- (b) Why there is a need to study Environmental issues? Explain Indian scenario. (5)
- (c) Explain three types of age structure pyramids to determine the population trends of different countries. (5)
3. (a) What is the concept of ecosystem? Explain the structure of ecosystem with the help of a flow diagram. (5)
- (b) Explain the process of energy flow in an ecosystem. Describe its salient features and different models. (5)
- (c) Write a short note on Ecological Succession illustrating its various steps. (5)
4. (a) Describe the salient features of Water (Prevention and Control of Pollution) Act. (5)
- (b) What is greenhouse effect? What are different greenhouse gases and how they contribute to global warming? What are the effects of global warming? (10)
5. (a) Discuss the sources, effects and control of noise pollution. (5)
- (b) Describe about different methods for primary and secondary treatment of sewage in a sewage treatment plant with the help of suitable diagrams. (10)

6. (a) Discuss about consumptive use value, social value, ethical value, option value and ecosystem service value of biodiversity, giving examples. (5)
- (b) Describe in-situ and ex-situ methods of conserving biodiversity. Explain different approaches of these two conservation methods. (10)
7. (a) What are causes and consequences of deforestation? Explain. (5)
- (b) Differentiate between renewable and non-renewable sources of energy. Elaborate with at least *five* examples of each. (10)
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