

December 2022

BCA/BCA(DS) - IIIrd SEMESTER

Environment Science (BCA-17-204B)

Time : 3 Hours]

[Max. Marks : 75

Instructions :

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

PART-A

1. (a) Why there is a need for public awareness about Environmental issues? Discuss Indian scenario. (1.5)
(b) What is the scope of studying Environmental Sciences? (1.5)
(c) What are Ecological pyramids? Explain why some of these pyramids are upright while others are inverted in different ecosystems. (1.5)
(d) What are the ecological and commercial uses of forests? (1.5)
(e) Differentiate primary and secondary air pollutants? Give examples. (1.5)

- (f) Differentiate food chain and food web. Give examples. (1.5)
- (g) What are the harmful effects of ozone hole formation? (1.5)
- (h) Explain 5R's approaches for solid waste management. (1.5)
- (i) Write about hot spots of biodiversity. Name some in Indian context. (1.5)
- (j) How can you as an individual conserve different natural resources and prevent environmental pollution? (1.5)

PART-B

- 2. (a) Give a brief account of Renewable and Non-renewable energy resources. Discuss different types and their feasibility. (8)
- (b) Define biodiversity. What are different methods of conservation of biodiversity? Explain with examples. (7)
- 3. (a) How energy flow takes place in an ecosystem? Explain Single channel energy flow model with the help of suitable diagrams. (8)
- (b) Write a short note on Ecological Succession illustrating its various steps. (7)

- 4. What is greenhouse effect? What are different greenhouse gases and how they contribute to global warming? What are the effects of global warming? (15)

- 5. (a) Explain sources, causes and consequences of surface and ground water pollution? Describe any five water pollutants in detail. (8)
- (b) Explain about thermal pollution. How does it occur? What are various methods for its control in industries? (7)

- 6. (a) Write a short note on causes, effects and control measures of urban and industrial wastes. (8)
- (b) Elucidate the statement "Population, Consumerism and Waste generation are inter-related". (7)

- 7. Write short notes on the following : (15)
- (a) Sustainable Development.
- (b) Rainwater harvesting.
- (c) Watershed management.