 UG — BCA (F – 2002)

2022(New)

Time : 3 hours

Full Marks : 70

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer from both the Groups as directed.

Group – A

Answer any **four** questions of the following :

1. Define ecosystem. Give an account of biotic and abiotic components of a freshwater ecosystem.

2+8 =10

2. What do you understand by Biogeochemical cycle ? Describe carbon and nitrogen cycle.

2+4+4 =10

3. Describe primary and secondary waste water treatment. 5+5 = 10

4. What are main sources of water pollution ? Describe the toxic effects of important water pollutants. 4+6 =10

5. Describe the role of Environmental Education and Awareness in the society. 5+5 = 10

6. What is pollution ? Describe the different sources of air pollution. 2+8 = 10

7. Write an essay on Rain water harvesting. 10

8. Discuss the Prevention and Control of Pollution Act. 10

Group – B

Answer **all** questions of the following : 10×3 = 30

9. Write short notes on the followings :

(a) Pyramid of Energy

(b) Biological transformation of pollutants

(c) Smog

(d) BOD measurement

(e) Population explosion

(f) Scope of Environmental Science

(g) Characteristics of municipal water

(h) Human Rights

(i) Food Chain

(j) Green House Effect

 UG — BCA (F – 2002)

2021

Time : 3 hours

Full Marks : 70

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer from both the Groups as directed.

Group – A

Answer any **four** questions of the following :

1. What do you mean by Environmental Science ? How we can make the public aware about environment and environmental science.

2+8 = 10

2. "Environmental science is multidisciplinary in nature". justify the above statement by giving suitable examples. 10

3. Define and explain the term Ecosystem. Which law is implemented in the ecosystem ? Can we address an aquarium as a complete ecosystem ?
2+6+2 = 10

4. Explain the three ecological pyramids. What data is propagated by each pyramid regarding functions, structure and energy in the ecosystem ?
10

5. Describe the primary & secondary treatment of waste water.
5+5 = 10

6. Describe the ambient air quality standard. Discuss the role of Central Pollution Control Board to control the air pollution.
2+8 = 10

7. Write the relationship between environment and human health.
10

8. Describe Water (Pollution and Control) Act, 1974.
10

Group – B

9. Write short notes on any **five** of the following :
3×5 = 15

(a) Nitrogen cycle

(b) Women and Child Welfare

(c) BOD

(d) Types of airpollutants

(e) Population explosion

(f) Sources of water pollution

10. Write short notes on any **five** of the following : 3×5 = 15

(a) Rain Water Harvesting

(b) Green House Gases

(c) Air (Prevention and Control of Pollution) Act

(d) Ozone depletion

(e) Energy flow in ecosystem

(f) Sampling and analysis of air pollutants

2019

Time : 3 hours

Full Marks : 70

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer ***all*** *the Groups as directed.*

Group – A

Attempt any **four** questions of the following : 10×4 = 40

1. Define Ecosystem, Give an account of the structure and function of an ecosystem.

2. What are ecosystem energetic ? Describe the energy flow in a typical ecosystem.

3. Give an account of sources and pollutants of air pollution.

4. Define Pollution. Give an account of environmental pollution.

5. What is global warming ? Discuss the threats related to the Ozone depletion in atmosphere.

6. Discuss the major sources of water pollution in our country.

7. Discuss the effect of environmental pollution on human health.

8. How global warming occurs ? Discuss the factors responsible and the consequences of global warming and climate change.

Group – B

9. Differentiate between any **five** of the following : 3×5 = 15

(a) Food web and food chain

(b) Nutrient cycle and biogeochemical cycle

(c) Producers and consumers

(d) Pyramid of numbers and pyramid of biomass.

(e) Primary and secondary waste water treatment.

(f) Stationary and mobile emission.

10. Write short notes on any **five** of the following : 3×5 = 15

(a) Photochemical smog

(b) Biological transformation of pollutants

(c) Water (Pollution and Control) Act

(d) BOD and COD measurements and their significance

(e) Human Rights and Value Education.

(f) Air (Prevention and Control of Pollution) Act