

Roll No.

BCA-A204/BSIT-A203

Bachelor of Computer Applications/

B. Sc. (IT) (Second Semester)

EXAMINATION, 2022-23

ENVIRONMENTAL SCIENCE

Time : 2½ Hours

Maximum Marks : 60

Note : All questions have to be attempted.

Section—A

1. Multiple choice questions : 1 each
 - (a) The study of living organisms with the environment is known as : (CO1, BL-1)
 - (i) Ecosystem
 - (ii) Environment
 - (iii) Community
 - (iv) Ecology
 - (b) The environment includes : (CO1, BL-2)
 - (i) Biotic factors

(ii) Abiotic factors

(iii) Oxygen

(iv) Biotic and abiotic factors

(c) The functional unit of environment is :

(CO1, BL-1)

(i) Ecosystem

(ii) Ecology

(iii) Population

(iv) All of the above

(d) The number of atoms present in Ozone is :

(CO2, BL-2)

(i) 3

(ii) 2

(iii) 4

(iv) 1

(e) Human being can hear range of sound frequency between : (CO3, BL-3)

(i) 20–20000 Hertz

(ii) 10–10000 Hertz

(iii) 1–100 Hertz

(iv) 1–7 Hertz

- (f) The burning of fossil fuel releases a large amount of : (CO3, BL-2)
- (i) Nitrogen into air
 - (ii) Sulphur into air
 - (iii) Carbon dioxide into air
 - (iv) Oxygen into air
- (g) Algal bloom results in : (CO4, BL-3)
- (i) Global warming
 - (ii) Salinization
 - (iii) Eutrophication
 - (iv) Biomagnification
- (h) Yellowing of Taj Mahal is an effect of : (CO3, BL-1)
- (i) Global warming
 - (ii) Ozone layer depletion
 - (iii) Acid rain
 - (iv) All of the above
- (i) Red Data Book contains data of : (CO3, BL-1)
- (i) All plant species
 - (ii) All animal species
 - (iii) Economically important species
 - (iv) Threatened species

- (j) The concept of biodiversity hotspots was given by : (CO2, BL-1)
- (i) Rachel Carson
 - (ii) Eugene Odum
 - (iii) M. S. Swaminathan
 - (iv) Norman Myers
- (k) Number of species in a defined area is : (CO2, BL-3)
- (i) Genetic diversity
 - (ii) Ecosystem diversity
 - (iii) Alpha diversity
 - (iv) Species diversity
- (l) IUCN stands for : (CO1, BL-1)
- (i) Indian Union for Conservation of Nature
 - (ii) Indiana Union for Conservation of Natural Resources
 - (iii) International Union for Conservation of Nature
 - (iv) None of the above
2. Attempt any *four* of the following short answer type questions : 3 each
- (a) Explain the definition and importance of Environmental Science. (CO1, BL-2)

- (b) Define Renewable and Non-renewable energy resources. (CO5, BL-1)
 - (c) Analyze the hotspots of biodiversity. (CO2, BL-4)
 - (d) Explain mitigation measures of air pollution. (CO3, BL-2)
 - (e) Describe the causes of landslides and measures for its prevention. (CO1, BL-1)

Section—B

3. Attempt any *two* questions : 6 each

(a) What is an ecosystem ? Discuss the structure of an ecosystem. (CO1, BL-2)

(b) What is biodiversity ? Discuss the different levels/kinds of biodiversity. (CO2, BL-2)

(c) Is climate change real ? If yes, then support your answer with evidences. (CO5, BL-4)

4. Attempt any *two* questions : 6 each

(a) Elaborate air pollution. (CO3, BL-2)

(b) Ozone layer depletion. (CO2, BL-1)

(c) Solid Waste management. (CO5, BL-3)

5. Attempt any two questions. 6 each

- (a) Discuss any *one* natural hazard prevalent in Uttarakhand. (CO1, BL-3)
 - (b) Discuss how population explosion is affecting the environment. (CO5, BL-1)
 - (c) Discuss Water (Prevention and Control of Pollution) Act of 1974. (CO4, BL-4)