

**BCA Ist Semester (Honours) Examination, 2021  
BACHELOR OF COMPUTER APPLICATION**

**COURSE ID: 11800**

**Course Code: BCA-AECC-01**

**Course Title: ENVIRONMENTAL STUDIES**

**Time : 3 Hours**

**Full Marks : 80**

*The figures in the margin indicate full marks.  
Candidates are required to give their answers in their own words  
as far as practicable.*

**Group A**

**1. Answer all the following questions :**

**1 X 10 = 10**

- i) The occurrence at vertical layers in a forest is
- |             |                   |
|-------------|-------------------|
| a) Pattern  | b) stratification |
| c) Zonation | c) eco tone       |
- ii) Photochemical smog is caused by –
- |                   |                    |
|-------------------|--------------------|
| a) CO             | b) CO <sub>2</sub> |
| c) O <sub>3</sub> | d) NO <sub>2</sub> |
- iii) BOD is
- a) Amount of oxygen consumed by microorganisms for decaying organic matter per unit volume of water.
  - b) Amount of CO<sub>2</sub> consumed by microorganisms per unit of sewage water
  - c) Amount of oxygen required by aquatic plants for survival
  - d) None of the above
- iv) The sphere of living matter found on the surface of earth comprises
- |                |                      |
|----------------|----------------------|
| a) Lithosphere | b) Atmosphere        |
| c) Hydrosphere | d) None of the above |
- v) In a pond ecosystem, the bottom area where the production is lesser than the respiration ( $P/R < 1$ ) is termed as:
- a) Littoral zone
  - b) Benthic zone
  - c) Limnetic zone
  - d) Profundal zone
- vi) The natural residence of every organism is known as:
- a) Biome
  - b) Niche
  - c) Habit
  - d) Habitat

- vii) "What do the forests bear? Soil, water, and pure air"- is the slogan coined during
- a) Chipko movement  
b) Silent valley movement  
c) Save Narmada movement  
d) none of the above
- viii) "Salmonella" is responsible for—
- a) Cholera  
b) Dysentery  
c) Typhoid  
d) Small pox
- ix) Kaziranga of Assam is a—
- a) Sanctuary  
b) National park  
c) Reserved forest  
d) Biosphere Reserve
- x) Sheet erosion is caused by:
- a) Fast running rivers  
b) Wind  
c) Heavy rains  
d) Glaciers

### Group B

#### 2. Answer any *ten* from the following:

2 X 10 = 20

- i) Distinguish between habitat and niche?
- ii) What do you mean by afforestation?
- iii) Give two viral pathogen example of water-borne diseases?
- iv) What is an Eco-cline?
- v) Define biosphere reserves with example?
- vi) Mention two advantages of solar energy?
- vii) What is the main function of an ecosystem?
- viii) What do you mean by Lindeman's Law?
- ix) Mark the producer, primary consumer, secondary consumer and tertiary consumer of a grassland ecosystem in the following word-----
- Grass, snake, hawk, Grasshopper**
- x) What is alpha ( $\alpha$ ) diversity?
- xi) What is GMO?
- xii) Full form of IUCN and UNESCO?
- xiii) What is acid rain?
- xiv) What is the difference between primary and secondary pollutants?
- xv) What are the two main causes of desertification?

### Group C

3. Answer any *four* from the following:

5 X 4 = 20

- i) Write a short note on eutrophication?
- ii) What are the methods of controlling air pollution?
- iii) How can be airborne diseases prevented?
- iv) What do you mean by Bio-magnification? Give two example of air-borne diseases?

3 + 2 = 5

- v) Explain the three ecological pyramids. What data is propagated by each pyramid in association with **function**, **structure** and **energy** in the ecosystem?
- vi) What is the importance of biodiversity in the environment?

### Group D

4. Answer any *three* from the following:

10 X 3 = 30

- i) What is global warming? What are the impacts of ozone layer depletion? 2 + 8 = 10
- ii) Draw a labelled diagram of HIV and describe its features? Briefly write down about mode of transmission , symptoms, and preventive measures of HIV? 4 + 6 = 10
- iii) What is land degradation? Write a short note on soil erosion? 2 + 8 = 10
- iv) Diagrammatically represent how does energy flow in an ecosystem?
- v) What is sustainable development? Write a short note on -atmosphere? 2 + 8 = 10
- vi) What is water pollution? How does solid waste management affect the environment?

3 + 7 = 10

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