**Professional Course (Even) Examination, 2025**

( 4th Semester )

**BACHELOR OF COMPUTER APPLICATIONS**

**( Environment and Ecology )**

*Full Marks* : 75

*Time* : 3 hours

*The figures in the margin indicate full marks for the questions*

**( PART : A—OBJECTIVE )**

( *Marks* : 25 )

SECTION—I

( *Marks* : 15 )

**I.** Tick (✓) the correct answer in the brackets provided : 1×10=10

1. The atmosphere is normally composed of _____ percent hydrogen, _____ percent of nitrogen and _____ percent as a mixture of carbon dioxide, water vapour and other gases.

   *(a)* 30, 1, 69 ( )

   *(b)* 69, 30, 1 ( )

   *(c)* 79, 20, 1 ( )

   *(d)* 1, 20, 79 ( )

2. Which of the following is renewable resource?

(a) Coal ( )

(b) Nuclear energy ( )

(c) Fossil fuel ( )

(d) Wind energy ( )

3. It is a tool to map land use patterns and document change by studying digitized toposheets and/or satellite imagery.

(a) Geographical information system (GIS) ( )

(b) GEO satellite system ( )

(c) AccuWeather ( )

(d) None of the above ( )

4. Entire collection of all living organisms found in a given ecosystem at a given time is known as

(a) biome ( )

(b) community ( )

(c) ecosystem ( )

(d) biodiversity ( )

5. Once they are released into the environment they are difficult to eradicate and continue to accumulate.

(a) Persistent pollutants ( )

(b) Non-degradable pollutants ( )

(c) Ecological unbalance ( )

(d) Ozone depletion ( )

6. The example of in situ conservation is

(a) zoo ( )

(b) aquarium ( )

(c) cryopreservation ( )

(d) wildlife sanctuaries ( )

7. The most direct harmful effect of excessive noise is physical damage to the ear and the temporary or permanent hearing loss often called

(a) Temporary Threshold Shift (TTS) ( )

(b) Noise-Induced Permanent Threshold Shift (NIPTS) ( )

(c) Pollution Control Board (PCB) ( )

(d) None of the above ( )

8. It is a form of oxygen with three atoms instead of two. It is produced naturally from the photodissociation of oxygen gas molecules in the atmosphere.

(a) Ionosphere ( )

(b) Ozone ( )

(c) Thermosphere ( )

(d) Mesosphere ( )

9. A country where poverty was widespread and economically backward was called

(a) civilized country ( )

(b) advanced country ( )

(c) developing country ( )

(d) backward country ( )

10. It is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

(a) Disaster management ( )

(b) Sustainable development ( )

(c) Abiotic ( )

(d) All of the above ( )

**II.** Indicate whether the following statements are *True (T)* or *False (F)* by putting a Tick (✓) mark in the brackets provided : 1×5=5

1. Biogas is a mixture of gases which includes methane, carbon dioxide, hydrogen sulphide and water vapour.

*( T / F )*

2. Water scarcity diseases can leads to tuberculosis, leprosy, tetanus.

*( T / F )*

3. Chipko Movement's goal is to protect forests from deforestation and commercial logging.

*( T / F )*

4. The unit measurement of a sound is called 'hertz'.

*( T / F )*

5. Consumers are organisms that make their own food, and are the foundation of food chains in an ecosystem.

*( T / F )*

## SECTION—II

( *Marks* : 10 )

**III.** Answer the following questions in short : 2×5=10

1. *(a)* Define ecosystem and give one example.

**OR**

*(b)* What is meant by population in ecology?

2. *(a)* Give two examples each of renewable and non-renewable resources.

**OR**

*(b)* What are the main causes of natural resource depletion?

3. *(a)* What are hotspots?

**OR**

*(b)* Differentiate between in situ and ex situ conservation.

4. *(a)* Explain the term 'global warming'.

**OR**

*(b)* List two major air pollutants and their sources.

5. *(a)* Name two major environmental movements in India.

**OR**

*(b)* Define sustainable development.

## ( PART : B—DESCRIPTIVE )

( *Marks* : 50 )

IV. Answer the following questions : 10×5=50

1. *(a)* Describe the classification and components of an ecosystem. 10

**OR**

*(b)* Describe the scope and importance of environmental study.

2. *(a)* What are natural resources? Illustrate the basics of non-renewable resources. 3+7=10

**OR**

*(b)* What is the depletion of natural resources? Explain the causes of depletion of natural resources. 3+7=10

3. *(a)* What is biodiversity hotspot? Illustrate the concept of megadiveristy and biodiversity hotspot. 2+(4+4)=10

**OR**

*(b)* Describe the in situ and ex situ conservation of biodiversity. 5+5=10

4. *(a)* Describe ozone layer depletion and its effects on climate change. 10

**OR**

*(b)* Define pollution. Write the types and sources of air pollution.

5. *(a)* What are environmental movements? Write on Sustainable Development Goals (SDGs). 10

**OR**

*(b)* Write short notes on the following : 5+5=10

*(i)* Appiko Movement

*(ii)* Silent Valley Movement

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