REV-01
BOP/15/20

2025/06

SET A

BACHELOR OF OPTOMETRY
SECOND SEMESTER
ENVIRONMENTAL SCIENCE
BOP-204

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 1hr. 30 mins. **Full Marks: 35**

Objective

Time: 15 mins. **Marks: 10**

Choose the correct answer from the following: ***1×10=10***

1. Which of the following is a direct impact of environmental degradation on human health?
   a. Respiratory problems
   b. Improved immune system
   c. Increased life expectancy
   d. Enhanced physical fitness

2. What is the function of the biosphere?
   a. It regulates Earth's climate
   b. It supports soil, air, water and land life
   c. It provides the Earth's tectonic structure
   d. It maintains the Earth's atmospheric composition

3. What is the largest level of ecological organisation?
   a. Population
   b. Community
   c. Ecosystem
   d. Biosphere

4. What is the definition of ecology?
   a. Study of the physical structure of the Earth
   b. Study of the interactions between organisms and their environment
   c. Study of astronomical bodies
   d. Study of chemical reactions in the atmosphere

5. Which trace gas is critical in absorbing harmful UV radiation?
   a. Methane
   b. Stratospheric ozone
   c. Carbon dioxide
   d. Aerosols

6. What is the primary cause of global warming?
   a. Deforestation
   b. Greenhouse gas emissions
   c. Industrial pollution
   d. Excessive rainfall

7. What percentage of Earth's surface is covered by water?
   a. 29%
   b. 50%
   c. 71%
   d. 90%

8. What is the major component of the hydrosphere?
   a. Groundwater
   b. Ice caps
   c. Oceans
   d. Lakes

9. Waste-to-Energy (WTE) conversion is a method that:
   a. Converts solid waste into electricity or fuel
   b. Prevents soil erosion
   c. Uses plants to clean pollution
   d. Converts deserts into agricultural land

10. What natural event can damage the lithosphere without human control?

a. Air pollution
b. Earthquakes and volcanic eruptions
c. Overfishing
d. Deforestation

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Descriptive

Time : 1 hr. 15 mins. **Marks : 25**

[Answer question no.1 & any two (2) from the rest]

1. Explain the four major components of the environment and their significance. 5

2. Define the hydrosphere and list its main components. Discuss the importance of the hydrosphere in maintaining Earth's climate. 2+3+5=10

3. What is the primary purpose of the Environmental Impact Assessment (EIA)? Mention and briefly explain the guiding principles of the EIA process. 5+5=10

4. Define air pollution and list its major causes. 10

5. Explain the different methods used to recover and convert land pollution. Give examples of each method. 10

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