

EASTERN UNIVERSITY SRI LANKA
FIRST YEAR IN SCIENCE (2016/2017)
ENS 1032 - BASIC BIOLOGY

2 hours

Answer all Questions

Answers a to j have to be underline the correct responses in this paper and attach with the sheet which contains the answers for remaining sections of this question paper.
(Mark the answer with clear labelled diagram where necessary) Index No:-.....

“An assemblage or association of populations of two or more different species occupying the same geographical area and in a particular time” is called as

1. Species 2. Community 3. Population 4. Biome

b. Which is not an autotroph?

1. Cyanobacteria 2. Green Plants 3. Bacteria 4. Algae

c. For biomagnification to occur, the pollutant must not be

1. Water soluble 2. Mobile
3. Long live 4. Biologically active

d. What is non-living renewable natural resource?

1. Forest 2. Minerals 3. Fossil fuel 4. Wind

e. Main causes of acid rain are

1. CO₂, NO₂ 2. SO₂, NO₂ 3. SO₂, Cl₂ 4. Cl₂, CO₂

f. Which is not a nitrogen fixing bacteria?

1. *Azotobacter* 2. *Rhizobium*
3. *Chlorobium* 4. *Nitrosomonas*

g. Which one of the following is the denitrification bacterium?

1. *Pseudomonas sp* 2. *Nitrosomonas sp*
3. *Nitrosospira sp* 4. *Nitrosococcus sp*

h. Which is not an example of e-pollutant?

1. Bulb 2. Paper 3. Radio 4. Computer

i. Which one of the following is not an Ozone depletion substance?

1. Chlorofluorocarbons (CFCs) 2. Methyl bromide (CH₃Br)
3. Carbon tetrachloride (CCl₄) 4. Hydrogen chloride (HCl)

j. “Two organisms of different species exist in a relationship in which each individual benefits from the activity of the other” is called

1. Parasitism 2. Competition
3. Commensalism 4. Mutualism

(1.5 x 10 = 15 Marks)

- k. What do you mean by bioaccumulation? (05 Marks)
- l. What is eutrophication? (05 Marks)
- m. Write five abiotic factors in aquatic ecosystem? (05 Marks)
- n. Briefly describe the Air Pollution (10 Marks)
- o. Write a short note on renewable resources. (10 Marks)

Q 02.

- a. What is meant by the term **Scientific name** (05 Marks)
- b. Draw and label a typical **Plant Cell** (05 Marks)
- c. List five differences between **Plant Cell and Animal Cell** (05 Marks)
- d. What are the major components of **Ecosystem?** (05 Marks)
- e. Briefly explain the **Energy Pyramid** (05 Marks)
- f. Write one example for each **Food chain** for paddy field, lagoon, ocean, home-garden, forest ecosystem (05 Marks)
- g. List four **Biotechnological applications** used in Biology (05 Marks)
- h. Draw and label the **Sexual reproductive unit** of a flowering plant (05 Marks)
- i. Diagrammatically illustrate the **Water cycle** and how it is effected (10 Marks)

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