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**Presidency University**

**Bengaluru**

**SCHOOL OF DESIGN**

**MIDTERM EXAMINATION – APR 2023**

**Date**: 17-APR-2023

**Time**: 2:30 PM – 3:30 PM

**Max Marks**: 50

**Weightage**: 25%

**Sem & AY**: Even Sem 2022-23

**Course Code**: CHE1020

**Course Name**: Environmental Studies and Sustainable Development

**Program & Sem**: B.Des & 2nd&4th Sem

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**Instructions:**

1. *Read the question properly and answer all the questions accordingly.*
2. *Complete the test within the time given.*

**PART-A**

**Answer all the Questions. Each question carries ONE mark. (25Qx 1M= 25M)**

1. The term ecosystem was first introduced by (CO1, Knowledge)
2. Utpary b) Earnest Haeckel c) Sir Arthur Tansley d) Sukachev
3. In an ecosystem, the energy flow is always (CO1, Knowledge)
4. Always unidirectional b) Always bidirectional c) In any direction

d) Always down directional

1. The region of earth, where life exists is known as (CO1, Knowledge)
2. Hydrosphere b) Biosphere c) Lithosphere d) Atmosphere
3. Ecosystem is smallest unit of (CO1, Knowledge)
4. Biosphere b) Lithosphere c) Hydrospere d) Atomosphere
5. Photosynthesis is a process by which plants prepare their own food by using\_\_\_

(CO1, Knowledge)

1. CO2 b) H2O c) Light and chlorophyll d) All the above
2. The organic nutrients of dead plants and animals are converted into inorganic

substances by microbes which are absorbed by (CO1, Knowledge)

1. Primary consumers
2. Secondary consumers
3. Primary producers
4. Secondary producers
5. Biological equilibrium occurs among the (CO1, Knowledge)
6. Producers and consumers
7. Producers and decomposers
8. Producers, consumers and decomposers
9. Producers themselves
10. If all the green plant where to disappear from the Earth (CO1, Knowledge)

a) All the animals will die b) Only herbivores will die c) Only carnivores will die

d) It will not matter to any animal

1. The major matters that are recycled through the biotic and abiotic components of the

ecosystem (CO1, Knowledge)

* + 1. Carbon, Water, Nitrogen, Oxygen, Phosphorus, Sulphur
    2. Carbon, Chlorine, Nitrogen, Oxygen, Phosphorus, Selinium
    3. Carbon, Helium, Neon, Ozone, Phosphorus, Sulphur
    4. Carbon, Copper, Sodium, Oxygen, Fluorine, Sulphur

1. Which of the following is a correct sequence of food chain? (CO1, Knowledge)
   * 1. fallen- leaves- bacteria- insect- larvae- birds
     2. phytoplankton – zooplankton- fish
     3. grasses-fox-rabbit
     4. grasses-chamelion-insects-birds
2. Which one of the following pairs of geographical areas show maximum biodiversity in our country? (CO1, Knowledge)  
   (a) Eastern Himalayas and Western Ghats   
   (b) Eastern Ghats and West Bengal  
   (c) Sunderbans and Rann of Kutch  
   (d) Kerala and Punjab
3. The term biodiversity was proposed by …………… (CO2, Comprehension)

a) W.G. Rosen b) Utpary c) Earnest Haeckel d) Sir Arthur Tansley

1. Factors affecting biodiversity are, (CO2, Comprehension)
2. Exploitation of wild living resources, including hunting and wildlife trading
3. Expansion of agriculture, forestry and aquaculture
4. Habitat loss
5. All the above
6. How many countries are identified as megadiverse countries by Conservation International? (CO2, Comprehension)

a) 17 b) 71 c) 20 d) 25

1. A cooperative relationship in which both species derive some benefit is called

(CO2, Comprehension)

a) Predation b) Parasitism c) Competition d) Mutualism

1. Endemism refers to (CO2, Comprehension)  
   (a) Species confined to that region and not found anywhere else  
   (b) Species confined to that region and also found anywhere else  
   (c) Species of all varieties  
   (d) None of the above
2. The lions and cheetahs of the African Savanna compete for the same antelope and gazelles. This will be an example of (CO2, Comprehension)

a) Predation b) Parasitism c) Competition d) Mutualism

1. The egrets feed off of lizards and insects forced out of hiding while the buffalo moves through the grass. (CO2, Comprehension)

a) Predation b) Parasitism c) Commensalism d) Mutualism

1. Galapogos tortoise is an example of (CO2, Comprehension)

a) Endemic species b) Exotic species c) Rare species d) Extinct speices

1. When the last individual in a particular species dies, it is known as \_\_\_\_\_\_\_\_\_\_

(CO2, Comprehension)

a) Speciation b) Extinction c) Phylogenetic diversity d) Adaptation

1. The major causes of extinction of different species include

(CO2, Comprehension)

1. Habitat loss and over-hunting
2. Climate change and pollution
3. Deforestation
4. All of above
5. Which of the following is true about species diversity (CO2, Comprehension)
6. it refers to the species richness only
7. it refers to the species evenness only
8. it is a combination of both species richness and abundance
9. none of the above
10. Some species are very rare and can be found in a particular ecosystem, these species are called\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (CO2, Comprehension)

a) Extinct species b) Endemic species c)Special species d) Pandemic species

1. Which of the below is not a megadiverse country? (CO2, Comprehension)

a) United States b) India c) China d) Britain

1. A megadiverse country must have at least \_\_\_\_\_\_\_\_\_\_\_species of endemic plants and must border marine ecosystems. (CO2, Comprehension)

a) 100000 b) 1000 c) 20000 d) 5000

**PART-B**

**Answer all the Questions. Each question carries FIVE marks. (3Qx 5M= 15M)**

1. What is environment? According to UNESCO, what are the objectives of envrionmental

studies? (CO1, Knowledge)

1. What are the different effects of noise pollution on human health? List the different ways to control

noise pollution? (CO1, Knowledge)

1. What is biodiversity? Explain briefly about ecosystem biodiversity with examples.

(CO2, Comprehension)

**PART-C**

**Answer the following Questions. It carries TEN marks. (1Qx 10M= 10M)**

1. The water cycle describes the continuous movement of water on, above, and below the

surface of the Earth. Water is always changing states between liquid, vapor, and ice and

moving from one reservoir to another, such as from river to ocean, or from the ocean to

the atmosphere. Identify the various processes that involves in water cycle. What are the

human activities that alter the water cycle? (CO1, Knowledge)