CVM University,

M.Sc Environmental Science and Technology 1st Semester

Course Code:101350101 Course: Environmental Biology and Restoration Ecology

Date:22nd February, 2021 Time: 2.00-4.00 pm Marks-60

Instructions:

- **Attempt all questions.**
- **Make suitable diagrams wherever necessary.**

Q. I. A. Answer the following multiple choice questions (8X1)

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1. Which pyramid is always straight ?
(A) Pyramid of biomass (B) Pyramid of number (C) Pyramid of energy (D) Pyramid of number and biomass

2. The forest biome characterised by 3-4 tree species/km2 is
(A) Tropical (B) Temperate (C) Boreal (D) Taiga

3. Which of the following is an example of lotic ecosystem ?
(A) Stream ecosystem (B) Pond ecosystem (C) Bog ecosystem (D) Wetland ecosystem

4. In terrestrial ecosystems, roughly how much NPP ends up being broken down by decomposers ?
(A) 90 % (B) 70 % (C) 50 % (D) 10 %

5. Many orchids use trees as a surface to grow. This is an example of
(A) Commensalism (B) Mutualism (C) Parasitism (D) Predation

6. Which one of the environment mentioned below is not considered as Coastal environment
(A). Sand-dune B)Ditch (C) Estuarine (D) Lagoon

7. Give one exampleof a Plant for Viviparous characters
(A).Mangrove (B) Avicenia (C) Parthenium (D) Tectona

8. Presence of following association is a characteristic of rich diversity of a community
(A) Lianas (B) Epiphytes (C) Lichens (D). All

Q.I.B. Answer the Follwing (Fill in the blanks / True/ Falls) (8X1)

a) Spatial variation deals with Time variation: True/ Falls
b) The zone where the light cann't penetrated is called Littoral zone :True/Falls
c) Replacement of existing communities by any external condition is termed as Primary succession :True/ Falls
d) In marine environment, nutrients are abundant in Nuretic Zone: True/ False
e) Antibiosis interactions
f) Climax community

g) Benthos in lentic environment
h) Frequency in community structure

Q. II. Answer any Six of the following **(6X2)**

a) Seed Output
b) Foundation & Key Stone species
c) Detritous food chain
d) Define Ecology, Ecosystem and Environment
e) Pelagic zone
f) Pnematophores
g) Biological clock
h) Restoration of Ecosystem

Q.III. What are different interactions in ecosystem ? Describe Possitive relations /interactions of organism with suitable examples . **OR** **(8)**

a. Discuss types of Ecological Pyramids in detail **(4+4)**

b. Explain Productivity in various ecosystems

Q.IV. Describe the various stages of Plant's life Cycle influenced by different environmental factors and explain the characters of Population. **OR** **(8)**

a. Define Ecological succession and Enumerate various stages of Hydrosere **(4+4)**

b. Discuss quantitative forest community structure in details

Q.V. Describe various criteria applied for the recognition of Ramsir sites of wetlands and add note on Consequences of Eutrophication. **OR** **(8)**

a. How do you restore the degraded wetlands ? Explain **(4+4)**
b. Explain various physical properties of Lotic environment

Q.VI. Narrate zonation pattern of Marine Environment and add a note on Physical properties of it. **OR** **(8)**

a. Explain conservation and preservation of Mangroves coastal environments **(4+4)**
b. Describe factors affecting on Coral reefs and production