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Paper Code: MSC-BOT-204

B

(SVSU:2024-25/R)

Enrollment No.

M.Sc. Botany

Semester II/I Year Examination

Plant Ecology and Phytogeography

MSC-BOT-204

[Time : 3:00 Hours]

[Max. Marks : 70]

Note: 1. Attempt all the questions as per given instructions.

1. **Objective Questions: Answer All Questions.** [15x1=15]
- I. Plants growing on burnt soil are called.
 - a) Hydrophilous
 - b) Heliophilous
 - c) Hetrophilous
 - d) Pyrophilous
 - II. Xerophytes have deep roots in soil
 - a) Due to light
 - b) To draw water from deep water beds
 - c) To give mechanical support
 - d) None of these
 - III. The substance having organic and inorganic constituents is:
 - a) Water
 - b) Soil
 - c) Air
 - d) All of these
 - IV. Ecology term given by
 - A. Strasburger
 - b) Eugene Odum
 - c) Ernst Haeckel
 - d) Roxburgh
 - V. The natural residence of every organism is known as:
 - a) Biome
 - b) Niche
 - c) Habit
 - d) Habitat
 - VI. Ecosystem has two component
 - A. Plants and Animals
 - b) Needs and Trees
 - c) Biotic and Abiotic
 - d) Frogs and Lizards
 - VII. Lichen is the association of:
 - a) Algae and alga
 - b) Alga and Fungus
 - c) Alga and roots of higher plants
 - d) Fungus and Fungus
 - VIII. Carbon di dioxide evolved from soil mainly comes from
 - a) Microbial respiration
 - b) Soil animal's respiration
 - c) Root respiration
 - d) None of the above
 - IX. Primary succession on rocks starts with:
 - a) Trees
 - b) Shrubs
 - c) Herbs
 - d) Lichen
 - X. Succulent plants grow in
 - a) Tundra
 - b) Deserts
 - c) Tropical rain forests
 - d) Temperate deciduous forests

XI. Greenhouse effect is due to:

- a) CFCs
- b) O₃
- c) Gases that check reflected infra-red radiations to pass through
- d) All of these

XII. In which of the following association, one of the species gets benefit and the other is

- a) Commensalism
- b) Symbiosis
- c) Mutualism
- d) Parasitism

XII. Which of the following oxides of nitrogen is the major air pollutant released from automobile exhausts?

- a) NO
- b) N₂O
- (c) NO₂
- (d) N₂O₃

XIV. Highest biodiversity country is

- a) Brazil
- (b) South Africa
- (c) India
- (d) Russia

XV. World Environment Day celebrated on

- (a) 05-Jun
- (b) 21-Dec
- (c) 20-Jan
- (d) 10-Mar

2. Long Question: Answer Any Three

[10×3=30]

- I. Define the Ecology. Give a detailed account on Topographic and Edaphic factors.
- II. What are phytogeographical principles? Discuss the various geographical regions of India.
- III. What do you mean by Ecological Succession? Give an account on xerosere.
- IV. Define the Pollution. Give an explanatory essay on various pollutants responsible for environmental pollution.

3. Short Questions: Answer Any Five.

[5×5=25]

- I. What are the basic components of ecosystem? Define them.
- II. Write a note on biodiversity and its conservation.
- III. Differentiate between Emigration and Migration of species?
- IV. Write a short note on phytoremediation.
- V. Explain about the afforestation and reforestation.
- VI. Give the short note on non-renewable energy.
- VII. Describe briefly about Nitrogen cycle in ecosystem.