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No. Of Printed Pages: 2

SARDAR PATEL UNIVERSITY  
FOURTH SEMESTER B.Sc. EXAMINATION

2016

WEDNESDAY 6<sup>th</sup> APRIL

10:30 am TO 01:30 pm

USO4CENV 01

(COMPONENTS OF ECOLOGY)

Marks: 70

- Note:** 1. Answers of all the questions (including multiple choice questions) should be written in the provided answer book only  
2. Draw neat and labeled diagrams wherever necessary

**Q.1. Select the correct answer and write it in the answer sheet.**

[10]

1. \_\_\_\_\_ occupy an intermediate position between hydrophytes and xerophytes  
(a) Halophytes (b) Oxylophytes (c) Eremophytes (d) Chersophytes
2. Pneumatophores are present in \_\_\_\_\_  
(a) Hydrilla (b) Neem (c) Mangrooves (d) Acacia
3. Atmosphere comprises of \_\_\_\_\_ % of nitrogen  
(a) 73 (b) 75 (c) 77 (d) 79
4. Sulphur is an essential component for continuous synthesis of \_\_\_\_\_  
(a) Amino acids (b) Minerals (c) Carbohydrates (d) Lipids
5. In living organism, CO<sub>2</sub> is main source of \_\_\_\_\_  
(a) Carbon (b) Hydrogen (c) Nitrogen (d) Chromium
6. \_\_\_\_\_ is made up of matrix formed by a fungus within the cells of which alga is embedded.  
(a) Hermit Crab (b) Lichen (c) Moth (d) All
7. \_\_\_\_\_ is not an example of commensalism  
(a) Linas (b) Epiphytes (c) Lichens (d) Epizoans
8. Which species is commonly associated with Western Ghats?  
(a) Shola (b) Sal (c) Orchid (d) Zizipus
9. Grazing is the dominant activity found in \_\_\_\_\_ to maintain the ecosystem  
(a) Desert (b) Grassland (c) Tropical rain forest (d) Mangroove swamp forest
10. Increasing trends of thorny species on displacement of productive grasslands are common examples of \_\_\_\_\_ in soil  
(a) Nitrogen deposition (b) Iron fortification  
(c) Desertification process (d) Unexpected humidification

- Q.2.** Answer the following questions in brief (Any 10) [20]
1. Define the term ecological adaptation
  2. What are succulents?
  3. What are hydrophytes?
  4. Show diagrammatic representation of nitrogen cycle
  5. Draw a labelled diagram of mineral cycle
  6. Discuss in brief the cycling of oxygen in ecosystem
  7. Write about Carnivorous plants as an example of negative interaction
  8. Write note on Zoochlorella
  9. Write in brief about Antibiosis
  10. Define the term Phytogeography
  11. What are endemic species?
  12. Enlist the animal species of Alpine biome
- Q.3. (a)** Describe the morphological adaptations of Hydrophytes [07]  
**(b)** Write in brief about Halophytes [03]
- OR**
- Q.3. (a)** Describe the adaptations of Xerophytes [07]  
**(b)** Explain in brief the anatomical adaptations of Mesophytes [03]
- Q.4.** Give a detailed account of Phosphorus cycle [10]
- OR**
- Q.4.** Discuss the Carbon cycle in detail [10]
- Q.5. (a)** Explain Mutualism with suitable examples [06]  
**(b)** Write note on Predation [04]
- OR**
- Q.5. (a)** Write note on Commensalism [06]  
**(b)** Explain exploitation as negative interaction [04]
- Q.6.** Give an account of different Phytogeography regions of India [10]
- OR**
- Q.6. (a)** Discuss how radiation index of dryness affect vegetation patterns [05]  
**(b)** Describe the effects of rainfall on the type of species prevailing in Indus and Gangetic region [05]

**ALL THE BEST**