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SEAT No. _____

No. of Printed Pages : 02

SARDAR PATEL UNIVERSITY
S.Y. B.Sc. (4th SEMESTER) EXAMINATION

Friday, 5th April, 2019

10.00 AM to 01:00 PM

Environmental Science

US04CENV01 Components of Ecology

Total Marks: 70

(10)

Q.1 Write the correct answer in the answer sheet

1. Well-developed arechymia is a feature of _____.

- (a) Xerophytes (b) Hydrophytes (c) Halophytes (d) Mesophytes

2. _____ is an example of succulent Xerophyte.

- (a) Acacia (b) Calotropis (c) Nerium (d) Opuntia

3. Major source of atmospheric oxygen is/are _____

- (a) Photosynthesis (b) Photodissociation (c) Both of above (d) None of above

4. In 1971, _____ found fixation of Nitrogen by lichens

- (a) Henriksson (b) Alanine (c) Pinatubo (d) Franklin

5. Neither of the pollution affects other is known as _____

- (a) Predation (b) Neutralism (c) Antibiosis (d) Mutualism

6. Zoochlorellae is example of _____

- (a) Exploitation (b) Protocooperation (c) Commensalism (d) Mutualism

7. _____ refers to complete or partial inhibition

- (a) Commensalism (b) Protocooperation (c) Neutralism (d) Antibiosis

8. _____ is a good indicator of healthy and mature deciduous forest along the western ghat.

- (a) Malabar Civert (b) Rusty Spotted Cat
(c) Malabar Grey Hornbill (d) Squirrel

9. Mountain soils are also known as _____ soil.

- (a) Brown (b) Skeletal (c) Latosol (d) None

10. In Andaman and Nicobar Islands _____ % area is legally under forest.

- (a) 86 (b) 96 (c) 85 (d) 76

1

(P.T.O.)

Q.2. Answer the following questions in brief (Any 10) (20)

1. Enlist type of Xerophytes.
2. What are Ephemeral Annuals?
3. Discuss classification of Halophytes.
4. Discuss chemical equations of Nitrogen cycle
5. Draw a labelled flow diagram of Phosphorus cycle in water
6. Explain in brief about Sulphur Cycle
7. How Lianas develops?
8. Discuss Intraspecific competition
9. Discuss about Protocooperation
10. Define the term: Phytogeography and Zoogeography
11. Enlist major types of forest on the basis of temperature.
12. Enlist the animal species of Alpine biome.

Q.3 (a) Discuss anatomical features roots of Hydrophytes with suitable diagram (06)

(b) Write a note on non-succulent perennials. (04)

OR

Q.3 (a) Write a note adaptations in animals - Mesocoles (06)

(b) Explain in brief about the anatomical adaptations of Mesophytes. (04)

Q.4 (a) Give a detailed account on Carbon cycle (05)

Q.4 (b) Explain Phosphorus cycle on land (05)

OR

Q.4 (a) Discuss about Oxygen cycle (05)

Q.4 (b) Write a note on working of Mineral cycle (05)

Q.5 (a) Write a note on Mutualism with example (05)

Q.5 (b) Give a note on Shelford's law of tolerance (05)

OR

Q.5 (a) What is Antibiosis? (05)

Q.5 (b) Discuss about Biological clock (05)

Q.6 Write a detail account on plants and animals of Himalayan zone. (10)

OR

Q.6 (a) Give a note on climatic regions of India. (05)

(b) Discuss in brief about soils of India. (05)