

(19 & A-8)

SEAT No. \_\_\_\_\_

No. of Printed Pages : 2

SARDAR PATEL UNIVERSITY  
S.Y.B.Sc. 4<sup>th</sup> SEMESTER EXAMINATION  
7<sup>th</sup> APRIL 2018, Saturday  
10.00 AM to 1.00 PM  
Components of Ecology (US04CENV01)

Total Marks-70

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

(10)

1. Well-developed aerenchyma is feature of \_\_\_\_\_  
a. xerophytes      b. halophytes      c. mesophytes      d. hydrophytes
2. \_\_\_\_\_ is free floating plant species  
a. Pistia      b. Lemna      c. Azolla      d. All of above
3. Toxic effects of molecular O<sub>2</sub> is protected by \_\_\_\_\_ cells  
a. Ribosomes      b. Golgibodies      c. Peroxisomes      d. Mesophyll
4. Atmosphere comprises of \_\_\_\_\_ percent of nitrogen  
a. 79      b. 89      c. 69      d. 59
5. In Sulphur cycle, \_\_\_\_\_ is formed by micro-organisms in aerobic condition  
a. organic residues      b. proteins      c. sulphide      d. sulphate
6. \_\_\_\_\_ is not a negative type of biotic interaction  
a. commensalism      b. predation      c. antibiosis      d. parasitism
7. The parasites which are growing on other parasite are known as \_\_\_\_\_  
a. parparasites      b. hyperparasites      c. hypoparasite      d. skimpyparasite
8. In ecological cycle, vegetative reproduction takes place after \_\_\_\_\_ stage  
a. perennation      b. propagation      c. viability      d. sprouting
9. Sal tree is common species in \_\_\_\_\_ region  
a. Central India      b. Indus Plain      c. Western Himalaya      d. all of above
10. \_\_\_\_\_ is richest vegetative region in India  
a. Deccan      b. Central India      c. Eastern Himalaya      d. Gangetic plain

(1)

(P.T.O.)

**Q.2 Answer in brief (Any ten)**

**(20)**

1. Write a note on morphological feature of hydrophytes
2. Enlist types of xerophytes
3. Discuss anatomical features in halophytes
4. Write in brief about phosphorus cycle in soil
5. Discuss various equations in nitrogen cycle
6. Give a brief note on importance of carbon cycle
7. How intraspecific competition works as negative interaction?
8. What are Epiphytes and Epizoans?
9. Write a brief note on Shelford's law of tolerance
10. Define the term (i) Phytogeography (ii) Zoogeography
11. Discuss in brief plant communities of the world
12. Write a short note on diverse fauna of India

- Q. 3** (a) Define the term hydrophytes. Discuss its classification **(05)**  
(b) Discuss morphological structures of xerophytes **(05)**

**OR**

- Q. 3** (a) Discuss general features of non-succulent plants **(05)**  
(b) Write a note on Ecological adaptation in animals- Mesocoels **(05)**

- Q. 4** Write a detail note on oxygen cycle with suitable diagram **(10)**

**OR**

- Q. 4** (a) Discuss in detail working of sulphur cycle **(06)**  
(b) Draw a labelled diagram of carbon cycle **(04)**

- Q. 5** (a) Write a brief note on exploitation as a type of negative interaction **(05)**  
(b) How does Liebig's Law of minimum work? Discuss **(05)**

**OR**

- Q. 5** (a) Give a detailed account on biological clock **(05)**  
(b) Write in brief about Mutualism as a positive interaction **(05)**

- Q. 6** (a) Write a note on Phyto-geographical regions of India **(05)**  
(b) Discuss in brief about factors determining distribution of animals **(05)**

**OR**

- Q. 6** (a) Write a note on Floristic regions of India **(05)**  
(b) Give a note on Zoo-geographical regions of World **(05)**