

Exam Date & Time: 26-Sep-2020 (02:00 PM - 05:30 PM)



## PSG COLLEGE OF ARTS AND SCIENCE

Note: Writing 3hrs: Checking & Inserting Image : 30mins

MSc DEGREE EXAMINATION MAY 2020  
(Fourth Semester)

Branch - BOTANY

ECOLOGICAL CONCEPTS [18BOP17]

Marks: 75

Duration: 210 mins.

### SECTION A

Answer all the questions.

- 1) In natural place where the organisms or communities live is known as  
(i) Niche  
(ii) Habit  
(iii) Habitat (1)  
(iv) Biome
  
- 2) Air, Water, Light, Temperature and pH makes up  
(i) biotic environment  
(ii) abiotic environment (1)  
(iii) ecosystem  
(iv) food chain
  
- 3) The relation between algae and fungi in lichen is  
(i) symbiosis  
(ii) parasitism (1)  
(iii) commensalism  
(iv) proto cooperation
  
- 4) Study of inter-relationships between organisms and their environment is  
(i) ecology  
(ii) ecosystem  
(iii) phytogeography (1)  
(iv) ethology
  
- 5) The primary succession refers to the development of communities on a  
(i) forest clearing after devastating fire  
(ii) newly-exposed habitat with no record of earlier vegetation (1)  
(iii) freshly cleared crop field  
(iv) pond, freshly filled with water after a dry phase
  
- 6) Which of the following acts as "nature's scavengers"? (1)  
(i) insects  
(ii) microorganisms

- (iii) man  
(iv) animals
- 7) Which of the following pairs is a sedimentary types of biogeochemical cycle?  
(i) phosphorous and nitrogen  
(ii) phosphorous and sulphur  
(iii) oxygen and nitrogen  
(iv) phosphorus and carbon dioxide (1)
- 8) In an ecosystem, which one shows one-way passage?  
(i) free energy  
(ii) carbon  
(iii) nitrogen  
(iv) potassium (1)
- 9) Which is the result of damage to relative biological effectiveness?  
(i) high temperature  
(ii) pollution  
(iii) radiation  
(iv) low temperature (1)
- 10) Which of the following waves in its procedure uses in remote sensing?  
(i) Electric field  
(ii) Sonar waves  
(iii) Gamma-rays  
(iv) Electro-magnetic waves (1)

### SECTION B

**Answer all the questions.**

- 11) Explain the ecological niche. (7)
- a)  
[OR] Classify biotic and abiotic factors. (7)  
b)
- 12) Narrate the population growth rate. (7)
- a)  
[OR] State the pollination. (7)  
b)
- 13) Sketch the structure of community. (7)
- a)  
[OR] State the ecotones. (7)  
b)
- 14) Write notes on biomes. (7)
- a)

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- [OR] Explain the edaphic factors. (7)  
b)
- 15) Write notes on MAB. (7)  
a)
- [OR] Describe about natural resources. (7)  
b)

### SECTION C

**Answer 3 out of 5 questions.**

- 16) Answer the following (i) Concept of habitat (ii) Resource Partitioning. (10)
- 17) Describe the life history strategies in population ecology. (10)
- 18) Discuss on ecological adaptations of xerophytes. (10)
- 19) Elucidate the faunal characteristics of major terrestrial ecosystems. (10)
- 20) "Remote Sensing technology in environmental studies" – Discuss. (10)

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