

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2023  
(Sixth Semester)

Branch – BOTANY

PLANT ECOLOGY

Time: Three Hours

Maximum: 75 Marks

SECTION-A

Answer ALL Questions

ALL questions carry EQUAL marks

(10X1=10 Marks)

1. When none of the participating organisms are harmed, then it is known as
  - (i) Intraspecific interaction
  - (ii) Interspecific interaction
  - (iii) Harmonious interaction
  - (iv) Inharmonious interaction
2. What is the feature of leaves of xerophytes?
  - (i) Thick cuticle
  - (ii) Flat leaves
  - (iii) Raised stomata
  - (iv) Root hairs
3. The efficiency of energy transfer from a lower trophic level to the next highest trophic level is roughly
  - (i) 1%
  - (ii) 10%
  - (iii) 100%
  - (iv) 1000%
4. How many molecules of ATP are required to fix one molecule of nitrogen?
  - (i) 12
  - (ii) 20
  - (iii) 6
  - (iv) 16
5. Which of the following defines the separation of two different communities?
  - (i) Ecotone
  - (ii) Edge effect
  - (iii) Ecade
  - (iv) Resistance
6. Estuaries form where
  - (i) A lake evaporates
  - (ii) A river meets the sea
  - (iii) A river becomes dammed
  - (iv) A wetland becomes filled in
7. \_\_\_\_\_ is defined as an ecological state of a species being unique to a specific geographic location
  - (i) Exotic species
  - (ii) Endemic species
  - (iii) Ecosystem
  - (iv) None of the above
8. \_\_\_\_\_ is not generally seen in biodiversity hotspots
  - (i) Endemism
  - (ii) Species richness
  - (iii) Loss of diversity
  - (iv) Lesser interspecific competition

Cont...

9. Which one of the substances mentioned is not responsible for the depletion of ozone layer?  
(i) CFCs  
(ii) Carbon tetrachloride  
(iii) Aerosols  
(iv) Ammonia
10. Which of the following promotes eutrophication?  
(i) Mg  
(ii) Na  
(iii) Ca  
(iv) P

**SECTION-B**

Answer **ALL** Questions

**ALL** questions carry **EQUAL** marks

(5X7=35 Marks)

- 11.a. Write notes on (i) mutualism (ii) Commensalism.  
Or  
b. Give an account on ecological adaptations of xerophytes.
12. a. Comment on food web with examples?  
Or  
b. Explain the pond ecosystem with illustrations
- 13.a. Explain about mangrove forest?  
Or  
b. Write about line transect ?
- 14.a. Give an account on endemism.  
Or  
b. Write briefly about chipko movement.
- 15.a. Give an account on causes of air pollution.  
Or  
b. Comment on eutrophication.

**SECTION-C**

Answer **ALL** Questions

**ALL** questions carry **EQUAL** marks

(3X10=30 Marks)

16. Give an account on ecological adaptations of hydrophytes.
17. Explain in detail about Carbon cycle.
18. Discuss in detail about the vegetations of India.
19. Give an account on hotspots.
20. Explain in detail about soil pollution.

Z-Z-Z

END