

(6 Pages)

**Reg. No. :** .....

**Code No. : 6899**

**Sub. Code : PBOM 42**

M.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2021.

Fourth Semester

Botany — Core

PLANT ECOLOGY AND CONSERVATION BIOLOGY

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Which of the following regions is not located in Tamil Nadu?
  - (a) Pichavaram
  - (b) Muthupet
  - (c) Mimisal
  - (d) Gangavalli

2. Deep ocean zone is
- (a) Abyss
  - (b) Pelagic
  - (c) Benthic
  - (d) Continental shelf
3. The pioneers in xerarch succession are
- (a) Crustose lichens
  - (b) Mosses
  - (c) Foliose lichens
  - (d) Fungi
4. The development of a bare area without any life form is
- (a) Ecesis
  - (b) Sere
  - (c) Nudation
  - (d) Xerosere
5. Soil conservation means
- (a) Prevention of spread of desert
  - (b) Checking soil erosion by wind and rain
  - (c) Checking soil erosion by afforestation
  - (d) All of the above
6. Disaster management includes
- (a) Mitigation
  - (b) Reconstruction
  - (c) Rehabilitation
  - (d) All of the above

7. Which of the following represents maximum number of species in global biodiversity?
- (a) Algae                      (b) Fungi  
(c) Lichens                  (d) Ferns
8. Endemic species are
- (a) Rare species  
(b) Species localized in a specific region  
(c) Cosmopolitan in distribution  
(d) Critically endangered species
9. Who among the following was associated with the Chipko movement?
- (a) Sunderlal Bahuguna  
(b) Gaura Devi  
(c) Sudesha Devi  
(d) Chandi Prasad Bhatt
10. Preserving germplasm in frozen state is
- (a) Cryopreservation  
(b) Cold storage  
(c) In situ preservation  
(d) Vernalisation

PART B — ( $5 \times 5 = 25$  marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) What are the components of a pond ecosystem?

Or

- (b) What is the ecological significance of mangroves?

12. (a) What are fossil fuels?

Or

- (b) What is environmental education? Why is it needed?

13. (a) What are the effects of soil erosion?

Or

- (b) How is tsunami generated?

14. (a) Explain age and area hypothesis.

Or

- (b) What are land bridges? What is their importance?

15. (a) What are seed banks?

Or

(b) Differentiate between National Parks and sanctuaries.

PART C — ( $5 \times 8 = 40$  marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain trophic structure of lentic ecosystem.

Or

(b) Write an account of the benthic ecosystem.

17. (a) What are the stages of xerosere succession?

Or

(b) How do landslides lead to disaster?

18. (a) “Global warming will lead to climate change”.  
Discuss.

Or

(b) What is a cyclone and what are its effects?

19. (a) What are the threats to biodiversity?

Or

(b) What are the various barriers to migration?

20. (a) “*Ex situ* conservation is a conservation method of last resort”. Discuss.

Or

- (b) What is the role of Botanical Survey of India in plant conservation?
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