

12.01.24
AN
PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Describe the types of ovules.
Or
(b) Describe the structure of microsporangium.
17. (a) Discuss in detail about complex tissue.
Or
(b) Describe the secondary growth takes places in dicot stem.
18. (a) Describe Calvin Cycle.
Or
(b) Write short notes on :
(i) Imbibition
(ii) Osmosis.
19. (a) Write an essay on mass cultivation of Nostoc.
Or
(b) Explain the mass production of yeast.
20. (a) Write in detail about meristem culture.
Or
(b) Write about the preparation of M.S. Medium.

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AABO 21

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2023.

Second/Fourth Semester

Botany — Allied

EMBRYOLOGY, PLANT ANATOMY, PHYSIOLOGY
AND BIOTECHNOLOGY

(For those who joined in July 2017-2020)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

- Inverted ovule is called as
(a) Anatropous (b) Orthotropous
(c) Hemianatropous (d) Campylotropous
- Double fertilization was discovered by
(a) Dickson (b) Leeuwenhoek
(c) Maheshwari (d) Nawaschin

3. Phloem fibres are also called as
(a) Libriform fibres
(b) Bast fibres
(c) Sclerenchyma fibres
(d) Surface fibres
4. Polyarch xylem is found in
(a) Monocot root (b) Dicot root
(c) Monocot stem (d) Dicot stem
5. Which part of the root is used in absorption of water?
(a) Epidermis (b) Root tip
(c) Root hair (d) Endodermis
6. The first stable three carbon compound of dark reaction is
(a) DHAP
(b) PGA
(c) RUBP
(d) Phosphoenol pyruvate
7. Example for biofertilizer is
(a) Chara (b) Volvox
(c) Yeast (d) Nostoc
8. Nostoc belongs to the class
(a) Phaeophyceae (b) Rhodophyceae
(c) Chlorophyceae (d) Cyanophyceae
9. Who is called as father of plant tissue culture?
(a) White (b) Skoog
(c) Haberlandt (d) Bentham
10. The undifferentiated mass of cells are called
(a) Embryoid (b) Anther
(c) Pollen (d) Callus

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) List out the functions of Tapetum.
Or
(b) Draw a labelled sketch of a mature ovule.
12. (a) Write about the classification of meristems.
Or
(b) Explain the internal structure of dicot root.
13. (a) Justify cohesion theory of Dixon and Jolly.
Or
(b) What is transpiration? Explain the types.
14. (a) What is biofertilizer? List out the importance of biofertilizer.
Or
(b) Explain the structure of yeast cell with suitable diagram.
15. (a) Briefly explain the scope and importance of plant tissue culture.
Or
(b) Write notes on callus culture.

