

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 structure of mature microsporangium.

Or

- (b) Describe the types of ovules.

17. (a) Discuss in detail about complex tissue.

Or

- (b) Describe the secondary growth in dicot stem.

18. (a) Write short notes on (i) Imbibition
(ii) Osmosis.

Or

- (b) Describe calvin cycle.

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 an essay about the applications of plant tissue culture.

Reg. No. :

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AABO 21

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2022.

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 :

1. Inverted ovule is called as
(a) Campylotropous (b) Orthotropous
(c) Anatropous (d) Hemianatropous
2. Cellular endosperm is seen in
(a) Cocos (b) Cucurbita
(c) Phaseolus (d) Mangifera



3. Example for simple tissue
 (a) Parenchyma (b) Collenchyma
 (c) (a) and (b) (d) Xylem
4. Polyarch xylem is found in
 (a) Dicot root (b) Monocot root
 (c) Dicot stem (d) Monocot stem
5. Which part of the root is useful in absorption of water?
 (a) Root hair (b) Root tip
 (c) Epidermis (d) Endodermis
6. The stable 3 carbon compound of dark reaction is
 (a) Phosphoglyceric acid
 (b) Ribulosebiphosphate
 (c) Phosphoenol pyruvate
 (d) Dihydroxy acetoe phosphate
7. Nostoc is a _____.
 (a) Bacteria (b) Fungi
 (c) Prokaryote (d) Eukaryote
8. Nostoc belongs to the class
 (a) Chlorophyceae (b) Phaeophyceae
 (c) Rhodophyceae (d) Cyanophyceae
9. Who is called as father of plant tissue culture?
 (a) Skoog (b) White
 (c) Haberlandt (d) Bentham

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10. In tissue culture, the pH of the culture medium is adjusted to
 (a) 5.8 (b) 6.8
 (c) 6.2 (d) 7.5

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Describe the structure of megasporangium.
 Or
 (b) Write short notes on Ruminant endosperm.
12. (a) Describe the internal structure of dicot stem.
 Or
 (b) Describe the internal structure of monocot root.
13. (a) Give a brief account on Ascent of sap.
 Or
 (b) Describe the types of transpiration.
14. (a) Describe the thallus structure of Nostoc.
 Or
 (b) Comment on Yeast.
15. (a) Describe about callus culture.
 Or
 (b) Write about the preparation of M.S. medium.

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