

Reg. No. :

Code No. : 30790 E

Sub. Code : EFBO 11

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

First Semester

Botany — Core

Foundation Course — BASICS OF BOTANY

(For those who joined in July 2023 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Who first discovered bacteria?
 - (a) Pasteur
 - (b) Koch
 - (c) Anton von Leeuwenhoek
 - (d) Darwin

2. Which is called as vascular cryptogams?
 - (a) Algae
 - (b) Bryophytes
 - (c) Pteridophytes
 - (d) Gymnosperms

3. Which of the following is called as colourless plastids?
 (a) Chloroplast (b) Phaeoplast
 (c) Leucoplast (d) Rhodoplast
4. Fluid mosaic model is associated with
 (a) Cellwall (b) Plasma membrane
 (c) Nuclear membrane (d) Cisternae
5. Phyllode is found in this plant
 (a) Muchlenbeckia (b) Opuntia
 (c) Euphorbia tirucalli (d) Parkinsonia
6. Hesperidium is found in this plant
 (a) Orange (b) Pomegranate
 (c) Apple (d) Banana
7. The phenotypic ratio of dihybrid cross is
 (a) 9 : 3 : 3 : 1 (b) 9 : 3 : 4
 (c) 9 : 3 : 2 : 2 (d) 15 : 1
8. The genotypic ratio of monohybrid cross is
 (a) 1 : 2 : 1 (b) 2 : 2
 (c) 3 : 1 (d) 1 : 1 : 1 : 1
9. Movement of solvent from the region of higher concentration to the region of lower concentration is called as
 (a) Diffusion (b) Imbibitions
 (c) Ascent of sap (d) Osmosis

10. Which part of the root is useful in absorption of water?
 (a) Root tip (b) Epidermis
 (c) Endodermis (d) Root hair

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).
 Each answer should not exceed 250 words.

11. (a) Define algae. Write the general characters of algae.
 Or
 (b) Write the general characters of gymnosperms.
12. (a) Describe the structure of cell wall with suitable diagram.
 Or
 (b) Explain the structure of prokaryotic cell with suitable diagram.
13. (a) Write about types of root modifications.
 Or
 (b) Describe the various types of cymose inflorescence.
14. (a) Write notes on law of dominance.
 Or
 (b) What is monohybrid cross? Explain it.
15. (a) What is osmosis? Explain it.
 Or
 (b) Write short notes on imbibition.

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Give a detailed account on viruses.
Or
(b) Write an essay on characteristics of pteridophytes.
17. (a) Explain the structure of light microscope.
Or
(b) Describe the structure and functions of mitochondria.
18. (a) Write an essay on racemose inflorescence.
Or
(b) Give a detailed account on stem modification.
19. (a) Give a detailed account on dihybrid cross.
Or
(b) Explain law of independent assortment.
20. (a) Give a detailed account on transpiration.
Or
(b) Discuss the mechanism of water absorption in higher plants.
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