

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Examine the major events of cell cycle.
Or
(b) Describe the structure of prokaryotic plant cell.
17. (a) Explain the structure and functions of mitochondria.
Or
(b) Describe the structure and functions of Nucleus.
18. (a) Highlight the stages of Microsporogenesis.
Or
(b) With suitable illustration, explain the process of development of Female gametophyte.
19. (a) What is Endosperm? Explain its types with suitable diagrams.
Or
(b) Write an essay on structure of Dicot embryo.
20. (a) Write an essay on Parthenocarpy.
Or
(b) Write an essay on Polyembryony.

Reg. No. :

Code No. : 30368 E Sub. Code : AMBO 51

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

Fifth Semester

Botany — Core

CELL BIOLOGY AND EMBRYOLOGY OF
ANGIOSPERMS

(For those who joined in July 2020 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer:

1. Which one of the following is a biggest cell?
(a) Ostrich's egg (b) Hen' egg
(c) Human egg (d) Mycoplasm
2. Which of the following feature will help you in distinguishing a plant cell from an animal cell?
(a) Cell wall (b) Mitochondria
(c) Cell membrane (d) Nucleus



3. Which one of the following term is not a part of nucleus?
 (a) Plasma membrane (b) Chromosome
 (c) Nucleolus (d) Gene
4. Who discovered Nucleus?
 (a) Robert hook (b) Robert Brown
 (c) Plumming (d) Singer
5. Egg in female gametophyte is accompanied by
 (a) Antipodal cells (b) Synergids
 (c) Definitive nucleus (d) Tube nucleus
6. Female gametophyte in angiosperm is represented by
 (a) Ovule
 (b) Nucellus
 (c) Embryo sac
 (d) Megaspore mother cell
7. Double fertilization was discovered by
 (a) Schwann (b) Nawaschin
 (c) Nathans (d) Smith
8. Endosperm is a _____ tissue
 (a) Nutritive (b) Defense
 (c) Mechanical (d) Covering
9. Development of fruit without fertilization is called
 (a) Poly embryony (b) Apomixis
 (c) Apospory (d) Parthincarpy

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10. In which of the plant species, parthenocarpy takes place?
 (a) Mango (b) Banana
 (c) Peach (d) Jack fruit

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Outline the different phases of mitotic cell division.
 Or
 (b) Differentiate prokaryotic cell with Eukaryotic cell.
12. (a) Illustrate the structure of Chloroplast.
 Or
 (b) Ribosomes are protein factories – justify the statement.
13. (a) Explain the structure of Pollengrains.
 Or
 (b) What are the essential and accessory parts of Flower?
14. (a) Discuss about the structure of monocot embryo.
 Or
 (b) Give a short note on Double Fertilization.
15. (a) List out the significance of Apomixis.
 Or
 (b) What is Polyembryony? Add its types.

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