

**(FOR THE CANDIDATES ADMITTED
DURING THE ACADEMIC YEAR 2023 ONLY)**

23UZY1A1

REG.NO. :

**N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI
END-OF-SEMESTER EXAMINATIONS : NOVEMBER-2023
COURSE NAME: B.Sc.-BOTANY
TIME : 3 HOURS**

**MAXIMUM MARKS: 75
SEMESTER: III**

**PART - III
PLANT DIVERSITY, ANATOMY, EMBRYOLOGY AND PLANT PATHOLOGY**

**SECTION – A (10 X 1 = 10 MARKS)
ANSWER THE FOLLOWING QUESTIONS. K1**

1. *Spirulina* contain a pigment which has an antioxidant property are called as _____.
(a) Phycocyanin (b) Chlorophyll (c) Xanthophyll (d) Carotenoid
2. The main function of the mid-dorsal groove is to retain _____.
(a) Germination of spores (b) Formation of gametes
(c) Water required for fertilization (d) Capturing spores
3. Examples of complex tissues is _____.
(a) Parenchyma (b) Xylem (c) Sclerenchyma (d) Chlorenchyma
4. The function of tapetum is _____.
(a) Pollen dehiscence (b) Anther development (c) Induce cell division (d) Nourishment
5. The disease Citrus canker is caused by _____.
(a) *Pseudomonas*
(b) *Xanthomonas citri*
(c) *Bacillus*
(d) *Escherichia coli*

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES. (K2)

6. Explain the medicinal uses of *Spirulina*.
7. Define strobilus in *Lycopodium*.
8. Two important functions of complex tissues .
9. What is double fertilization .
10. Write any two symptoms of red rot disease in sugarcane.

**SECTION – B (5 X 5 = 25 MARKS)
ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)**

11. a) Explain the morphology and economic importance of *Spirulina*.
(OR)
b) Sketch the structure of *Mucor* and list its features.
12. a) Illustrate the internal structure of *Riccia* thallus.
(OR)
b) Explain the structure of female cone in *Cycas*. **(CONTD.....2)**

13. a) Summarize about complex tissues.

(OR)

b) Explain the primary structure of *Tridax* stem .

14. a) Define Parthenocarpy. List out its importants.

(OR)

b) Sketch the structure of ovule and explain its features.

15. a) Interpret the concept of host pathogen interaction.

(OR)

b) Write a short note on TMV.

SECTION – C

(5 X 8 = 40 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

(K4 (Or) K5)

16. a) Describe the life style of *Sargassum*.

(OR)

b) Explain the structure of reproduction of *Usnea*.

17.a) Determine the life history of *Lycopodium*.

(OR)

b) Criticize the general characters and economic importance of Gymnosperms.

18. a) Examine the secondary thickening in *Polyalthia* stem.

(OR)

b) Inspect the primary structure of monocot root *Zea mays*.

19.a) Evaluate the process of microsporogenesis.

(OR)

b) Criticize the process of double fertilization and triple fusion.

20.a) Assess the causes, symptoms and control measures of red rot disease in sugarcane

(OR)

b) Interpret the symptoms and control measures of citrus canker disease
