

(FOR THE CANDIDATES ADMITTED
DURING THE ACADEMIC YEAR 2025 ONLY)

25PBY102

REG.NO. :

N.G.M.COLLEGE (AUTONOMOUS): POLLACHI
END-OF-SEMESTER EXAMINATIONS: NOVEMBER - 2025
M.Sc.-BOTANY **MAXIMUM MARKS: 75**
SEMESTER: I **TIME: 3 HOURS**

PART - III

PLANT DIVERSITY II (PTERIDOPHYTES, GYMNOSPERMS AND PALAEOBOTANY)

SECTION – A (10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

MULTIPLE CHOICE QUESTIONS.

(K1)

1. What is meant by Synangium in Psilotum?
a) A group of gemmae
b) Group of tender leaves
c) Group of sporangia
d) A bud in the rootd) Rhodophta
2. How many leaves are produced by Ophioglossum in an year?
a) 40 to 50
b) 1 to 5
c) 20 to 30
d) 35 to 45
3. Excurrent tree are seen in _____.
a) Cycadales
b) Coniferales
c) Gnetales
d) None of the above
4. Pentoxlales fossil was first discovered in the Indian State of
a) Bihar
b) Tamil Nadu
c) Kerala
d) West Bengal
5. Which of the following period is very old?
a) Cenozoic
b) Mesozoic
c) Paleozoic
d) Proterozoic

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.

(K2)

6. What is meant by Apospory?
7. Differentiate between homospory and heterospory?
8. What is meant by Corolloid root?
9. What is alternation of generation?
10. What are fossils? Give an example.

SECTION – B

(5 X 5 = 25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)

11. a) Explain the anatomy of *Psilotum* stem with suitable diagram
(OR)
b) Draw V.S. diagram of *Selaginella* cone and make comments on the parts
12. a) Explain the dehiscence mechanism of antherozoids in *Adiantum*.
(OR)
b) Describe the morphology of *Osmunda* with relavent diagrams.

(CONTD.....2)

13. a) What are the characteristic features of Bennettiales?

(OR)

b) Discuss the sporne classifications of Gymnosperms.

14. a) Explain the morphology of Gnetum.

(OR)

b) Compare the general characters of Taxales and Gnetales.

15. a) What are the types of fossils?

(OR)

b) Give any two examples of fossilized Pteridophytes with suitable diagram.

SECTION – C

(5 X 8 = 40 MARKS)

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

(K4 (Or) K5)

16. a) Write an essay on Reimer's classification of Pteridophytes.

(OR)

b) Give an account of general characters of *Equisetum*

17. a) Explain the reproduction methods of *Ophioglossales*.

(OR)

b) Write an account of sexual reproduction in Filicales.

18. a) Explain the external and internal morphology of stem and leaf in *Cycas*..

(OR)

b) What are the morphological features of Pteridospermales?

19. a) Elaborate various stages of male and female flower development in Gnetum.

(OR)

b) Explain the various stages of embryo development in Ginkgoales..

20. a) Discuss the role of fossils in understanding the evolution process with suitable examples.

(OR)

b) Write an essay on sphenophyllum fossils.
