

## First Year Botany Model Paper

Time : 3 Hours

Max.Marks :60

### SECTION A

Note : Answer all questions. Each answer may be limited to 5 lines.

10 x 2 = 20

1. Give the main criteria used for classification by Whittaker.
2. What is Palaeobotany? What is its use?
3. What are the first organisms to colonise rocks? Give the generic name of the moss which provides peat.
4. Differentiate between racemose and Cymose inflorescences.
5. What is the morphology of cup like structure in Cyathium? In which family it is found?
6. What is Natural system of plant classification? Name the scientists who followed it.
7. What is the function of a polysome?
8. What are primary and secondary metabolites? Give examples
9. An anther has 1200 pollen grains. How many pollen mother cells must have been there to produce them?
10. Hydrophytes show reduced xylem. Why?

### SECTION B

Note: Answer any six questions. Each answer may be limited to 20 lines

6 x 4 = 16

11. What are the taxonomical aids? Give the importance of Herbaria and Museums.
12. Give a brief account of Dinoflagellates.
13. Write briefly about the different types of ovules.
14. Give economic importance of plants belonging to Fabaceae.
15. Give an account of the types of chromosomes based on the position of centromere.
16. Which division is necessary to maintain constant chromosome number in all body cells of multicellular organism and why?
17. A transverse section of the trunk of a tree shows concentric rings which are known as annual rings. How are these rings formed? What is the significance of these rings?
18. Write a brief account on classification of xerophytes.

### SECTION C

Note: Answer any two questions. Each answer may be limited to 60 lines

2 x 8 = 16

19. Explain how stem is modified variously to perform different functions.
20. Describe the process of Fertilization in angiosperms.
21. Describe the internal structure of a dicot root.