Botany Paper – II

May - 2011

Part III

Time : 3 hours **Max.Marks : 60**

Note:- Read the following instructions carefully.

i. Answer **all** the questions of **Section A**. Answer **anySix** questions out of eight in **Section B** and answer **ANY TWO** questions out of three in **Section C**.
ii. In **Section A**, questions from Sl.Nos. **1** to **10**are of very short answer type. Each question carries **TWO** marks. Every answer may be limited to 5 lines. Answer all these questions at one place in the same order.
iii. In **SectionB**, questions from Sl. Nos. **11** to **18** are of Short answer type. Each question carries **FOUR** marks. Every answer may be limited to 20 lines.
iv. In **SectionC**, questions from Sl.Nos. **19** to **21** are of Long answer type. Each question carries **EIGHT** marks. Every answer may be limited to 60 lines.
v. Draw labeled diagrams wherever necessary for questions in **Section B** and **C**.

SECTION – A 10 X 2 = 20

Note:-Answer**all** the following questions. Each answer may be limited to 5 lines.

1. Why Spirogyra is called 'Pond Scum' and 'Pond Silk'?
2. Define Coenocytic hyphae with an example.
3. What is secondary transfusion tissue in Cycas? Mention its function.
4. In which food do you find lactic acid bacteria? Mention their useful application.
5. Name the metabolic activity of plants which is referred to as 'necessary evil'. Who called so?
6. Which type of soil water is available to plants? Define it.
7. Name any two blue green algae. Add a note on their importance in rice fields as a bio-fertilizer.
8. Define the turn over number of an enzyme.
9. What is the 'Richmond-Lang effect'?
10. What is 'emasculation'? Mention its importance.

Section – B 6 X 4 = 24

Note:-Answer**ANY SIX** questions. Each answer may be limited to 20 lines.

11. Describe the structure of Pterisprothallus.
12. How are bacteria important in Agriculture?
13. Explain the structure of T-even bacteriophage.
14. Explain the cohesion tension theory.
15. Describe the various steps in the development of root nodules in legumes.
16. Tabulate the differences between C_3 and C_4 pathways/plants.
17. Enumerate the application of the plant tissue culture technique.
18. Write briefly about food values of mushrooms.

SECTION – C 2 X 8 = 16

Note:- Answer **ANY TWO** questions. Each answer may be limited to 60 lines.

19. Describe the internal structure of Funaria capsule.
20. Explain the respiratory pathway which is common for both aerobic and anaerobic respirations.
21. Explain the various steps in recombinant DNA technology.