**ST.JOSEPH’S COLLEGE (AUTONOMOUS) BANGALORE-27**

**M.Sc. BOTANY – II SEMESTER**

**SEMESTER EXAMINATION: APRIL 2020**

**BO: 8418: Methods in Plant Sciences**

**Time: 2 ½ hrs. Max. Marks: 70**

**This paper contains ONE printed page**

**A. Explain or define any FIVE of the following 10x2= 10**

1. Camera Lucida

2. Abbe diffraction limit for a microscope

3. 2D Chromatography

4. Tyndall effect

5. Alan Walsh’s invention

6. X-ray powder diffraction

7. Numerical aperture

8. Cryo-electron Microscope

9. Any two types of centrifuges

10. Gases used in GC

11. Any two properties of colloids

12. Micrometry

**B. Write critical notes on any THREE of the following 5x6=30**

13. Biomechanics

14. NMR instrumentation

15. HPLC instrumentation

16. Differences and similarities between SEM and TEM

17. Bioluminescence

18. Path of light and image formation in light microscope

19. Important features of a good research paper

**C. Give a comprehensive account of any ONE of the following 2x 10=10**

20. Instrumentation and sample preparation in Microtomy

21. Principles, techniques and applications of SDS PAGE

22. Detailed account of Nanobiotechnology

**BO: 8418-B**