**­ST. JOSEPH’S COLLEGE (AUTONOMOUS), BENGALURU-560027**

**II M.Sc BOTANY – IV SEMESTER**

**END SEMESTER EXAMINATION – APRIL 2018**

**BO: 0315 – BIOTECHNOLOGY**

**This question paper has ONE printed page and THREE parts**

**Instructions: *Draw diagrams* and *give examples* wherever necessary**

**Time: 2 1/2 hours Max. Marks: 70**

1. **Write on any TEN of the following in one or two sentences: 10 x 2 = 20**
2. Nitrocellulose membrane.
3. Monoclonal antibodies.
4. Gene gun.
5. Biosafety.
6. BAC.
7. Cell suspension culture.
8. Biotransformation.
9. Cybrids.
10. Cryopreservation.
11. Enzymes in leather industry
12. Lyophilization
13. Transformation products
14. **Write critical notes on any FIVE of the following: 5 x 6 = 30**
15. Southern blot technique and its applications.
16. Construction of c-DNA libraries.
17. *Agrobacterium tumefaciens* mediated gene transfer.
18. M13 lifecycle and its role in rDNA technology.
19. Importance of micropropagation in forestry.
20. Commercial production of *Bt* protein
21. Cloning of foreign DNA fragments into cosmid vectors.
22. **Give a comprehensive account of any TWO of the following: 2 x 10 = 20**
23. Production of Secondary metabolites and its industrial application.
24. Techniques used for genetic transformation in tissue culture and mention any 3 applications.
25. Isolation and purification of enzymes.

**BO-0315-B-18**