 Register Number:

 Date:

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

**M.Sc. BOTANY - IV SEMESTER**

**SEMESTER EXAMINATION - APRIL 2019**

**BO 0315 – BIOTECHNOLOGY**

**Time- 2 ½ hrs Max Marks-70**

**This paper contains one printed page and three parts**

**Draw diagrams wherever necessary**

**A.** Answer **any ten** of the following in two to three sentences **10X2=20**

1. YAC
2. Clonal forestry
3. Somatic hybrids
4. RT PCR
5. NPV
6. Cryopreservation
7. Elicitors
8. Restriction site
9. Gene gun
10. pUC 19
11. Expression vector
12. Cosmids

**B.** Write critical notes on **any five** of the following **5X6=30**

13. Restriction mapping with an example

14. Transposons as vectors

15. Construction of genomic libraries

16. Commercial production of Streptomycin. Add a note on its application

17. Social and moral issues related to Biotechnology

18. Pollen pathways in *in vitro* haploid production

19. Somatic hybridization

**C.** Give a comprehensive account of **any two** of the following  **2X10=20**

20. Production of ethanol using microbes.

21. M13 phage – Life cycle and its use as vector

22. Genetic transformation employing tissue culture and its applications

 BO\_0315\_B