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Register Number:

DATE: 18-04-2017

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

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

**SEMESTER EXAMINATION: APRIL 2017**

**BO 0315 – Biotechnology**

**Time- 2 1/2 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 2X10=20

1. Recombinant DNA
2. Clonal forestry
3. Gene gun
4. Entrapment technique
5. NPV
6. Azospirillum
7. Polylinker site
8. Junk gene
9. Chitosan
10. Probe
11. Microdroplet technique
12. Lyophilization

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

13. Industrial applications of secondary metabolite production

14. Commercial production of Amylase using *Aspergillus niger*

15. CaMV as a cloning vector for recombinant DNA technology

16. Pollen pathways in *in vitro* haploid production

17. Construction of cDNA libraries

18. Applications of PCR technology

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

19. Production of SCP. Add a note on the use and contraindications of *Spirulina* tablets

20. Explain the structure, functions and applications of Ri plasmid

21. Genetic transformation employing tissue culture and its applications

**BO 0315-B-17**