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Register Number:

DATE: **16** **-04-2018 (1PM)**

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

**M.SC BOTANY –IV SEMESTER**

**SEMESTER EXAMINATION –APRIL 2018.**

**BO-0415 – ELECTIVE PAPER: MICROBIOLOGY**

**Time: 2 ½ Hours Max. Marks : 70**

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

**Draw diagrams wherever necessary**

**A. Write on any TEN of the following in one or two sentences 10x2=20**

1.Nif gene

2.*Trichoderma viride*

3.Vaccines

4.Polio Virus

5.Tetanus

6.Epitope

7. Antigenic drift

8.Hypersensitivity

9.Acquired immunity

10.Salmonellosis

11.Plasmodium

12.Raw material for Lactic acid fermentation

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

13.Commercial production of Biofertilizers

14. Innate immunity

15. Production of microbial proteases

16.Monoclonal antibodies

17. Mycotoxins

18.Japanese encephalitis virus

19. *Corynebacterium diphtheria*

**C. Give a comprehensive account of any TWO of the following 2x10=20**

20.MHC Class I and II pathways

21.Industrial production of ethyl alcohol

22. Etiology of Mycobacterium tuberculosis

 BO-0415-B-18