

Register Number:

**Date: 26-04-2019**

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

**B.Sc. MICROBIOLOGY - VI SEMESTER**

**SEMESTER EXAMINATION- APRIL 2019**

**MB 6216-MICROBIAL TECHNOLOGY**

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

This paper contains**1** printed page and **4** parts

1. **Answer any Five of the following 5X3=15**
2. Comment on Insertional Inactivation.
3. Define SCP, give one example and mention any two disadvantages.
4. Write the protocol for liposome fusion.
5. Define gene therapy.
6. Mention any three applications of DNA finger printing.
7. Write the mode of action of Alkaline Phosphatase and Phospho nucleotide kinase.
8. Comment on delayed fruit ripening.
9. **Answer any Five of the following 5X5=25**
10. Explain *Agrobacterium* mediated gene transfer.
11. Write a short note on screening of pBR 322 vector.
12. Explain EtBr-CsCl density gradient centrifugation.
13. Write a short note on superbug and its applications.
14. What is IPR? Give its importance.
15. Write a flow chart of beer production and explain three main mashing systems used in the process.
16. Explain Western Blotting technique.
17. **Answer any Two of the following 2X10=10**
18. Explain PCR and its applications.
19. Write a detailed notes on citric acid production.
20. Describe Insulin production.
21. **Answer the following 1X10=10**
22. A student was working with bacterial vectors and his instructor has assigned him a new work to study the gene expression system of a eukaryotic system. He has successfully identified 7 different functional mRNA coding for a specific protein. He wanted to store these mRNA for future use but found that mRNA would not be stable for a longer period using the conventional methods. Which alternate method could be suggested for him? Justify your choice of method and explain the procedure.