Turn Over

QP CODE: 24027470

Reg No : ..... Name : .....

# B.Sc DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE EXAMINATIONS, OCTOBER 2024

## **Third Semester**

B.Sc Botany and Biotechnology Model III Double Main

### CORE COURSE - BO3CRT18 - MICROBIOLOGY & MICROBIAL TECHNOLOGY

2017 Admission Onwards

CDBDE71A

Time: 3 Hours

Max. Marks : 60

Part A

#### Answer any ten questions.

#### Each question carries **1** mark.

- 1. Name few chemicals commonly used for bacterial fixation.
- 2. Write few names of basic dyes used for staining.
- 3. Write on pour plate technique.
- 4. Name different preserving techniques used in bacterial cell culture.
- 5. Write any two methods of sterilization.
- 6. What is known as heat tretment of sterilization?
- 7. Vanomycin is an example of \_\_\_\_\_\_ of preservative.
- 8. Give two examples for anti-fungal drugs.
- 9. Write main features of viruses.
- 10. Name any two developent in fermentation technology.
- 11. Give an example for the production of secondary metabolite in microbe.
- 12. Give an example for metabolic pathway engineering.

(10×1=10)

#### Part B

## Answer any **six** questions.

Each question carries 5 marks.

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- 13. Write on working of fluorescent microscope.
- 14. Comment in detail on nutritional types of bacteria.
- 15. Comment on different method used to isolate pure bacterial colony.
- 16. How to determine the efficiency of drug using disc diffusion method?
- 17. Write a note on genetic recombination in bacteria.
- 18. Describe the lytic and lysogenic life cycle of virus.
- 19. What are the importants of microbes in industry?
- 20. How fractional factorial approach differs from Statistical design of experiments?
- 21. Give a pictorial representation of a fermentor with its important parts.

(6×5=30)

#### Part C

## Answer any **two** questions. Each question carries **10** marks.

- 22. Briefly explain Bergeys manula of classification.
- 23. Write on both growth kinetics and growth curve of bacteria in detail.
- 24. How the production of ethanol differ with two strains? explain with two examples?
- 25. Evaluate your observations in the growth of microbial strains for aiding agriculture industry.

(2×10=20)