#### MICROBIOLOGY

Time: Three hours Maximum: 100 marks

PART A  $-(10 \times 2 = 20 \text{ marks})$ 

Answer ALL questions.

Give short notes on the following:

Selective media.

2. Broth culture technique.

3. Carbon cycle.

Soil microorganisms.

Cold preservation.

6. Vinegar.

. Food processing techniques.

8. Fermentation technology.

Mycobacterium tuberculosis.

10. HIV.

#### PART B — $(7 \times 5 = 35 \text{ marks})$

### Answer any SEVEN questions.

- 1. Explain the typical structure of prokaryotic cell.
- Explain the importance of various types of nutrient media in the culture of microbes.
- 13. Give an account on phosphorous cycle.
- Describe the pathogens transmission routes to human beings.
- Briefly explain the dehydration and osmotic food preservation methods.
- Describe the preservations method of milk products and meat.
- 17. Write about the production of vinegar in industry.
- Describe the causes, symptoms and control methods of cholera.
- How will you check the quality of drinking water?
  Explain.
- 20. Write a short note on T4 Bacteria phage.

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## PART C — $(3 \times 15 = 45 \text{ marks})$

# Answer any THREE of the following.

- 21. Write an essay on role of soil microbes in agriculture.
- Describe about the oral and condiasis and Nosocomial infections.
- 23. Discuss the role of microbes in dairy industry.
- Discuss in detail about various methods of sterilization.
- Describe about the industrial production of penicillin.