

**Second Year B.Sc Medical Microbiology Degree Regular/Supplementary
Examinations March 2025
Paper VI – General Microbiology**

(2016 Scheme)

Time: 3 hrs

Max Marks: 100

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Long Essays (2x15=30)

1. Name various methods of gene transfer. Discuss in detail about mechanism of conjugation and transduction.
2. Describe in detail the structure and function of the cell wall and cell membrane of a bacterial cell with the help of a diagram.

Short Essay (2x10=20)

3. Mutation
4. Heat sterilization

Short Answers (6x5=30)

5. Polymerase chain reaction
6. Triple sugar iron agar test
7. Gas Pak system
8. Streak culture method
9. Contributions of Louis Pasteur
10. E- test

Comment on (10x2=20)

11. Fermentation
12. Ridel- walker test
13. Efflux pumps
14. Gram stain
15. UV rays
16. Genetic engineering
17. Beta Lactamase
18. Autotrophs
19. Nitrogen cycle
20. Vinegar production
