

MICROBIOLOGY

PAPER – IV

MICRO/D/16/18/IV

Time : 3 hours

Max. Marks : 100

Important instructions:

- *Attempt all questions in order.*
- *Each question carries 10 marks.*
- *Read the question carefully and answer to the point neatly and legibly.*
- *Do not leave any blank pages between two answers.*
- *Indicate the question number correctly for the answer in the margin space.*
- *Answer all the parts of a single question together.*
- *Start the answer to a question on a fresh page or leave adequate space between two answers.*
- *Draw table/diagrams/flowcharts wherever appropriate.*

Write short notes on:

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|---|--------|
| 1. Principle and applications of MALDI-TOF in clinical microbiology. | 4+6=10 |
| 2. Point of care tests. | 10 |
| 3. Principle and applications of reverse vaccinology. | 6+4 |
| 4. Define vaccine derived polio virus and the current strategies in global polio vaccination programme. | 2+8 |
| 5. Next generation sequencing. | 10 |
| 6. Enumerate mechanisms of Linezolid resistance and its laboratory detection. | 6+4 |
| 7. Define quasi species and their role in disease. | 4+6 |
| 8. Define biosensors and its application in Microbiology. | 2+8 |
| 9. New guidelines of Biomedical Waste Management Rules, 2016. | 10 |
| 10. Application of stem cell research in Microbiology. | 10 |
