

MICROBIOLOGY
PAPER-ITime: 3 hours
Max. Marks:100

MICRO/J/20/18/I

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:

1. Define innate immunity. Discuss the factors affecting it. Describe mechanism of innate immunity. 2+4+4
2. Define immunodeficiency disorders. Discuss disorders caused by primary immuno-deficiencies. 4+6
3. Describe phenotypic and genotypic variation of bacteria. Discuss different types of mutations in bacteria. 6+4
4. Define airborne infections and droplet infections with examples. How will you measure air contamination in a room? 4+4+2
5. Describe Personal Protection Equipment (PPE) for health care workers. How PPE helps in infection control in hospital. 4+6
6. What are the various methods of preservation and revival of bacterial cultures? 7+3
7. Define surveillance. Discuss role of Microbiologist in containment and surveillance of anti-microbial resistance. 3+7
8. What are the adjuvant and immune-potentiators? Discuss their practical uses. 5+5
9. What are the sources of health care associated urinary tract infections? Discuss various control measures to prevent urinary tract infections. 5+5
10. Describe in brief the impact of laboratory effluent on the environment. Write about effluent treatment plant. 5+5
