

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

MICRO/D/20/18/I

Important Instructions:

- You are provided with 5 answer sheet booklets. Each individual answer sheet booklet consists of 10 pages excluding the covering jackets.
- Answers to all the questions must be attempted within these 5 answer sheet booklets which must be later tagged together at the end of the exam.
- No additional supplementary answer sheet booklet will be provided.
- 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. Discuss properties of an ideal disinfectant. Describe testing for efficiency of disinfectant. Describe Spaulding's classification for devices used in Hospital setting. 3+4+3
2. Define surgical site infections. Enumerate methods of diagnosis and prevention of Surgical Site Infections (SSIs). 2+(4+4)
3. Antimicrobial peptides. 10
4. Describe in brief the immunological mechanism of tissue damage in infection with special reference to COVID-19. 10
5. Define immunity. Describe in brief about innate immunity in health and disease. 2+(4+4)
6. Describe collection, segregation, storage & transport, treatment and disposal of biomedical waste in relation to a COVID-19 hospital. 2+2+2+2+2
7. What are research ethics? Describe in brief ethics related to research on laboratory animals. 3+7
8. State the principle of real time PCR. Name the methods of detection of amplification products. Mention the applications in clinical microbiology. 3+3+4
9. Define quality assurance and quality control. What are the pre analytical and analytical factors that can affect quality of a bacteriology report? 3+7
10. Preservation of microorganisms. 10
