

# Question Paper

Exam Date & Time: 19-Jun-2024 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

FIFTH SEMESTER B.Sc.MEDICAL LABORATORY TECHNOLOGY DEGREE EXAMINATION-JUNE 2024

SUBJECT: MLT3103- SYSTEMATIC BACTERIOLOGY

(SCHEME 2020)

Marks: 100

Duration: 180 mins.

Answer all the questions.

Draw diagrams wherever necessary.

- 1) Explain the virulence factors, pathogenesis, laboratory diagnosis and treatment of *Staphylococcus aureus* infection (20)  
(5+7+6+2 = 20 marks)
- 2) Explain the morphology of *Clostridium perfringens*, and the pathogenesis, clinical manifestations and laboratory diagnosis of gas gangrene (20)  
(2+3+7+8 = 20 marks)
- 3) Name the etiological agent of bacterial dysentery. Explain the pathogenesis, laboratory diagnosis and treatment of bacillary dysentery (10)  
(1+4+3+2 = 10 marks)
- 4) List the diarrheagenic *E.coli*. Explain the pathogenesis of diarrhoea caused by *E.coli* (10)  
(2+8 = 10 marks)
- 5A) Explain the pathogenesis and clinical manifestations of pulmonary tuberculosis. (5)
- 5B) Define significant bacteriuria. Explain the laboratory method used to determine the significant bacteriuria. (5)
- 5C) Explain the pathogenesis and clinical manifestations of syphilis (5)
- 5D) Explain the nonsuppurative complications of *Streptococcus pyogenes* (5)
- 5E) Explain the virulence factors and pathogenesis of *Pseudomonas aeruginosa* (5)
- 5F) Name the etiological agent of leprosy. Explain the pathogenesis and clinical features of leprosy (5)
- 6A) List the risk factors of hospital acquired infection (2)
- 6B) Explain the principle of TSI test (2)
- 6C) Name ANY TWO selective media used for *S. Typhi* (2)
- 6D) Explain the morphology and cultural characteristics of *Mycoplasma* (2)
- 6E) Classify *Vibrio cholerae* (2)

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