

**2406121401010501**  
**EXAMINATION JANUARY 2025**  
**DOCTOR OF MEDICINE**  
**DOCTOR OF MEDICINE (MICROBIOLOGY)**  
**PAPER - I - LEVEL 1**

[Time: As Per Schedule]

[Max. Marks: 100]

**Instructions:**

1. Fill up strictly the following details on your answer book
  - a. Name of the Examination : **DOCTOR OF MEDICINE**
  - b. Name of the Subject : **DOCTOR OF MEDICINE (MICROBIOLOGY) PAPER - I - LEVEL 1**
  - c. Subject Code No : **2406121401010501**
2. Draw labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.

Seat No:

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Student's Signature

- Q.1** Define HAI. Discuss in detail about CLABSI. **20**
- Q.2** Discuss about role of immunity in fungal infection. **20**
- Q.3** Write short notes on **20**
- (a) Graft versus host reaction
  - (b) Secondary immunodeficiency
  - (c) CSSD
  - (d) Recombinant DNA technology
- Q.4** Write short notes on **40**
- (a) Role of Microbiologist in Outbreak investigation
  - (b) Newer Viral vaccine
  - (c) Antimicrobial stewardship programme
  - (d) Newer diagnostic techniques used in Microbiology

\*\*\*\*\*END\*\*\*\*\*

**2406121401010502**  
**EXAMINATION JANUARY 2025**  
**DOCTOR OF MEDICINE**  
**DOCTOR OF MEDICINE (MICROBIOLOGY)**  
**PAPER - II - LEVEL 1**

[Time: As Per Schedule]

[Max. Marks: 100]

**Instructions:**

1. Fill up strictly the following details on your answer book
  - a. Name of the Examination : **DOCTOR OF MEDICINE**
  - b. Name of the Subject : **DOCTOR OF MEDICINE ( MICROBIOLOGY ) PAPER - II - LEVEL 1**
  - c. Subject Code No : **2406121401010502**
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.

Seat No:

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Student's Signature

- Q.1** Enumerate bacterial causes of meningitis. Describe laboratory diagnosis of bacterial meningitis. Add a note on differentiating features of Tuberculous and pyogenic meningitis. **20**
- Q.2** Write short notes on **20**
- (a) Write in brief about halophilic vibrio.
  - (b) Write a note on human anthrax and its importance as a bioterrorism agent.
  - (c) Discuss methods of prevention of transmission of Methicillin Resistant Staphylococcus aureus (MRSA).
  - (d) Describe decontamination and concentration methods for sputum.
- Q.3** Enumerate sexually transmitted diseases. Describe the epidemiology, pathogenesis and laboratory diagnosis of Syphilis. **20**

**Q.4 Write short notes on**

**40**

- (a) Write a brief note on genital chlamydial infections.
- (b) Discuss microbiological features and clinical importance of *Staphylococcus saprophyticus*.
- (c) Describe the virulence factors of *Bordetella pertussis* and laboratory diagnosis of Whooping cough.
- (d) Write in detail about recent advances in laboratory diagnosis of pulmonary tuberculosis.

\*\*\*\*\*END\*\*\*\*\*

**2406121401010503**  
**EXAMINATION JANUARY 2025**  
**DOCTOR OF MEDICINE**  
**DOCTOR OF MEDICINE (MICROBIOLOGY)**  
**PAPER - III - LEVEL 1**

[Time: As Per Schedule]

[Max. Marks: 100]

**Instructions:**

1. Fill up strictly the following details on your answer book
  - a. Name of the Examination : **DOCTOR OF MEDICINE**
  - b. Name of the Subject : **DOCTOR OF MEDICINE (MICROBIOLOGY) PAPER - III - LEVEL 1**
  - c. Subject Code No : **2406121401010503**
2. Draw and label diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.

Seat No:

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Student's Signature

- Q.1** Enumerate fungi causing systemic infections. Describe mycology, clinical features, laboratory diagnosis and treatment of Blastomycosis. **20**
- Q.2** Write short notes on **20**
- (a) Write in brief on glandular fever.
  - (b) Write a note on immunological abnormalities associated with HIV infection.
  - (c) Write a note on antifungal susceptibility testing.
  - (d) Discuss the pathogenesis, clinical manifestation and laboratory diagnosis of *Cysticercus cellulosae*.
- Q.3** Enumerate arboviruses prevalent in India. Discuss pathogenesis and laboratory diagnosis of Dengue. Add a note on Dengue vaccines. **20**
- Q.4** Write short notes on **40**
- (a) Discuss the morphology, life cycle, pathogenicity and laboratory diagnosis of malarial parasite.
  - (b) Enumerate fungi causing opportunistic infections. Discuss laboratory diagnosis of candidal infections.
  - (c) Discuss the morphology, pathogenesis, laboratory diagnosis and prevention of HBV.
  - (d) Discuss antigenic variations in Orthomyxoviruses.

\*\*\*\*\*END\*\*\*\*\*

**2406121401010504**  
**EXAMINATION JANUARY 2025**  
**DOCTOR OF MEDICINE**  
**DOCTOR OF MEDICINE (MICROBIOLOGY)**  
**PAPER - IV - LEVEL 1**

[Time: As Per Schedule]

[Max. Marks: 100]

**Instructions:**

1. Fill up strictly the following details on your answer book
  - a. Name of the Examination : **DOCTOR OF MEDICINE**
  - b. Name of the Subject : **DOCTOR OF MEDICINE (MICROBIOLOGY) PAPER - IV - LEVEL 1**
  - c. Subject Code No : **2406121401010504**
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.

Seat No:

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Student's Signature

- Q.1** Describe recent advances in "Automation in Clinical Microbiology" **30**
- Q.2** Write short notes on. **40**
- (a) Write in brief on molecular typing methods for bacteria.
  - (b) Discuss nanotechnology for diagnosis of infectious diseases.
- Q.3** Enumerate target amplification based nucleic acid tests. Write in brief on its principle along with diagram. Discuss their role in diagnosis, management and epidemiological study of infectious diseases. **30**

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