

**SS/MBBS-II/MIC-II/12-24****2024****(December)****MICROBIOLOGY****Paper-II****Full Marks: 90****Time: 2 hours 50 minutes****The figures in the margin indicate full marks for the questions****Answer all questions**

Illustrate your answers with suitable diagrams and flowcharts wherever necessary.

Write the question number correctly.

Answer the questions in order.

1. Enumerate the etiological agents of Madura foot. Discuss briefly the clinical features and laboratory diagnosis of the condition. (2+4+4=10)

2. Enumerate different zoonotic bacteria. Describe the pathogenesis and laboratory diagnosis of any one of them. (4+6=10)

3. A 32-year-old female was admitted with dysuria and increased frequency of micturition for the past 2 days. Culture of the urine sample revealed lactose fermenting colonies on MacConkey's agar. (1+4+2+6+2=15)

(a) What is the probable clinical diagnosis?

(b) Enumerate the common microorganisms causing this condition.

(c) What are the various methods of specimen collection in such condition?

(d) Describe the laboratory diagnosis in detail.

(e) How will you treat this clinical disease?

**4. Write short notes on:****(5×5=25)**

- (a) Laboratory diagnosis of meningococcal meningitis
- (b) Toxic shock syndrome
- (c) Difference between gonococcal and non-gonococcal urethritis
- (d) Laboratory diagnosis of white patch in the oral cavity
- (e) Primary amoebic meningoencephalitis

5. Enumerate the respiratory viruses. Describe the antigenic characteristics and laboratory diagnosis of influenza virus. (3+4+3=10)

6. A 10-year-old boy presented to the emergency ward with multiple scratches on upper arm and neck, lack of sleep, and difficulty in swallowing liquid. The attendant of the patient gave history of dog bite 15 days back. (1+2+2+7+3=15)

- (a) What is the most probable clinical diagnosis?
- (b) What are the possible modes of transmission of the disease?
- (c) How will you take care of the dog bite wound?
- (d) Discuss the laboratory diagnosis of this condition.
- (e) Name the vaccines currently available for human use.

7. Describe in brief about the pillars of bioethics.

**5**

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