

03/26

The West Bengal University of Health Sciences
MBBS 2nd Professional Examination (New Regulation) January-February, 2026

Subject: Microbiology
Paper: II

Full Marks: 100
Time: 3 Hours

Attempt all questions and answer in sequential order. The figures in the margin indicate full marks.

1. a) A 58 year old male patient from Malda presents with low grade fever, inguinal lymphadenitis and swelling of left leg. On Examination, there is non-pitting edema of the left leg. Laboratory investigations revealed absolute eosinophilic count of 800/ μ L with TLC of 9600/ μ L. 1+2+5+5+2
- i. What is your clinical diagnosis?
 - ii. Name the likely etiological agent(s).
 - iii. Describe the pathogenesis of this condition.
 - iv. How will you confirm the diagnosis?
 - v. Name two drugs those are effective against the organism(s).
- b) A 9 year old, non-immunized village boy attended emergency department with history of sore throat and mild fever for last 1 week. There was associated neck rigidity and vomiting since last 2 days. At present he complains of pain in right lower limb with increasing severity and gradually progressing to weakness and flaccid paralysis. 2+3+4+2+4
- i. What is the most probable clinical diagnosis and the etiological agent in this case?
 - ii. Discuss the pathogenesis of the disease.
 - iii. What are the clinical manifestations of the disease?
 - iv. How would you confirm the diagnosis in laboratory?
 - v. Write about the vaccines available against the etiological agent.
2. Answer the following:
- a. Name the fungal agents causing CNS infections in immunocompromised hosts. Write down the laboratory diagnosis of most common such agent. Enumerate the different types of infections caused by that agent. 3+5+2
 - b. Enumerate the aetiological agents causing gas gangrene. Describe the pathogenesis of gas gangrene. Write down the laboratory diagnosis of gas gangrene. 3+3+4
 - c. Mention the causes of genital ulcer with the respective causative agents. Write down the laboratory diagnosis of hard chancre. 4+6
3. Write short notes on the following: 2x5
- a. Management of needle stick injury
 - b. Zika virus disease
4. Explain the following statements: 5x4
- a. Influenza vaccine can't give lifelong protection.
 - b. Microorganisms are often used to produce bio weapon.
 - c. Anaerobic culture requires specialized culture techniques.
 - d. *Ascaris lumbricoides* may cause surgical complications.

