



'সমানো মন্ত্র: সমিতি: সমানী'

**UNIVERSITY OF NORTH BENGAL**  
B.Sc. Honours 6th Semester Examination, 2023

**CC13-MICROBIOLOGY**

**(MEDICAL MICROBIOLOGY)**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.*

1. Answer any **five** of the following questions: 1×5 = 5
  - (a) Name the causative agent of Histoplasmosis.
  - (b) What is the full form of MRSA?
  - (c) Name two opportunistic pathogens.
  - (d) In which infection is Azidothymidine used?
  - (e) Define Pathogenicity.
  - (f) What is the basic difference between precipitation and agglutination?
  - (g) Name one antibiotic that inhibits protein synthesis.
  - (h) Name two normal microflora of gastrointestinal tract of human.
  
2. Answer any **three** of the following: 5×3 = 15
  - (a) Explain the principle of immunofluorescence-based diagnostic tests. 5
  - (b) Write about the symptoms and mode of transmission of *Clostridium tetani*. 3+2
  - (c) Discuss how PCR helps in the diagnosis of viral diseases citing suitable example. 5
  - (d) Name the causative agent of Candidiasis. Give an account of its symptoms. 1+4
  - (e) Describe the mechanism of action of Amantadine. 5
  
3. Answer any **two** of the following: 10×2 = 20
  - (a) Elucidate the symptoms, pathogenicity, prophylaxis and control of Tuberculosis. 5+3+2
  - (b) State the differences between bacterial exotoxins and endotoxins. Write down the mechanism of AB toxin with suitable diagram. 5+5
  - (c) Name two antibiotics which inhibit nucleic acid synthesis. Describe the structure and mode of any one of them. 2+3+5
  - (d) Describe the process of adhesion and invasion during the host pathogen interaction in detail. 5+5

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