



**WEST BENGAL STATE UNIVERSITY**

B.Sc. Honours 6th Semester Examination, 2021

**MCBACOR13T-MICROBIOLOGY (CC13)**

**MEDICAL MICROBIOLOGY**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.  
Candidates should answer in their own words and adhere to the word limit as practicable.  
All symbols are of usual significance.*

**Answer Question No. 1 and any *four* questions from the rest**

1. Answer any *four* questions from the following: 2×4 = 8
  - (a) What do you mean by invasiveness of a pathogen?
  - (b) Mention the clinical features of dengue.
  - (c) What is fomite?
  - (d) What is the function of Haemagglutinin?
  - (e) What do you mean by nosocomial infection?
  - (f) What is the difference of toxigenicity and pathogenicity?
  - (g) What are the benefits of normal microflora in the body?
  - (h) What do you mean by opportunistic pathogens?
2.
  - (a) Mention the name of a transport media each for aerobic and anaerobic bacteria. 2
  - (b) What do you mean by serological test and biochemical test? 2
  - (c) Mention a selective media each for culturing *V. cholerae* and *Neisseria* spp. 2
  - (d) What is antigenic typing? 2
3.
  - (a) Why skin not usually a favourable micro-environment for colonisation by bacteria? 2
  - (b) Comment briefly on collection of clinical sample from lower respiratory tract. 2
  - (c) What are the main routes of transmission of polio virus? 2
  - (d) Why does Sabin polio vaccine require booster doses during immunization? 2
4.
  - (a) Describe the clinical forms of candidiasis. 3
  - (b) What is the most vulnerable secondary infection associated with Tinea pedis? 2
  - (c) How is histoplasmosis transmitted and treated? 2+1

5. (a) Differentiate between the following: 3×2 = 6  
 (i) Bacterial meningitis and viral encephalitis.  
 (ii) MDR and PDR.  
 (b) What do you mean by Cutaneous and Pulmonary Anthrax? 2
6. (a) What do you mean by synergism with respect to antimicrobial activity? 2  
 (b) Though chloramphenicol does not inhibit protein synthesis of eukaryotes but can inhibit protein synthesis of eukaryotic cell organelle like mitochondria – Why? Justify your answer. 2  
 (c) What do you mean by chemotherapeutic index? 2  
 (d) A and B two different antibiotics having a chemotherapeutic index of 2 and 0.5. Which antibiotics would be acceptable for therapy? Justify your answer. 2
7. Describe the mode of actions of the following: 2×4 = 8  
 (a) Griseofulvin  
 (b) *Quinolones*  
 (c) Streptomycin  
 (d) Amphotericin B.
8. (a) Mention the differences between latent tuberculosis infection and TB disease. 2  
 (b) Which disease is caused by *Clostridium tetani*? Mention the virulence factors produced by *C. tetani* and what is their role in causing the disease? 1+3  
 (c) Briefly give idea on MRSA. 2
9. (a) Name any two drugs used for the treatment of systemic mycoses fungal disease and state the mode of action. 2  
 (b) What are pathophysiologic effects of LPS? 2  
 (c) What precautionary measures are taken to control vector borne diseases? 2  
 (d) Write the name of 2<sup>nd</sup> line anti TB drug. 1  
 (e) What is A/E lesion? 1

**N.B. :** Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.

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