

Bachelor of Science (B.Sc.) Semester-V (C.B.S.) Examination**MEDICAL MICROBIOLOGY****Compulsory Paper—I****(Microbiology)**

Time : Three Hours]

[Maximum Marks : 50

N.B. :— (i) **All** questions are compulsory.

(ii) All questions carry equal marks.

(iii) Draw diagrams and give examples wherever necessary.

1. Explain various routes of transmission of communicable diseases. 10

OR

Describe any two methods for control of communicable diseases. 10

2. Discuss various methods of invasiveness and add a note on toxigenicity. 10

OR

Explain normal microbial flora of healthy human host. 10

3. (a) Diagrammatically represent the life cycle of Plasmodium. 2½

(b) Describe Mantoux test. 2½

(c) Describe quantitative Widal test for serological diagnosis of *S. typhi*. 2½

(d) Explain V.D.R.L. test. 2½

OR

(e) Draw well labelled structure of HIV. 2½

(f) Differentiate between hepatitis A and hepatitis B. 2½

(g) How will you diagnose tuberculosis by microscopic method ? 2½

(h) Describe any two media used for cultivation of *Salmonella typhi*. 2½

4. (a) Enlist basic mechanisms of action of drugs. Describe any two. 5

(b) Describe Kirby-Bauer disc diffusion method for drug susceptibility. 5

OR

(c) Enlist various mechanisms for development of drug resistance. Describe any two. 5

(d) Describe e-strip method for drug susceptibility. 5

5. Solve any **TEN** :

(i) Differentiate between signs and symptoms.

(ii) Define : Toxaemia and Viremia.

(iii) What is prodromal phase ?

(iv) What is toxoid ?

(v) Define : MLD and MID.

(vi) Enlist any two diseases of respiratory tract.

(vii) Name any two media used for cultivation of *M. tuberculosis*.

(viii) What is Australia antigen ?

(ix) What is Nichol's strain ?

(x) Name any two basic principles of drug designing.

(xi) Define antimetabolite.

(xii) Differentiate between broad and narrow spectrum antibiotic. 1×10=10