

NRT/KS/19/2147

Bachelor of Science (B.Sc.) Semester—V Examination

MEDICAL MICROBIOLOGY

Optional Paper—1

(Microbiology)

Time : Three Hours]

[Maximum Marks : 50

- N.B. :—** (1) All questions are compulsory and carry equal marks.
(2) Draw well labelled diagrams wherever necessary.

1. Describe different modes of disease transmission. 10

OR

Explain the methods of blocking the channels of transmission. 10

2. Describe pathogenicity and virulence. Add a note on various methods of attenuation and exaltation. 10

OR

Explain microbial flora of skin, digestive and urinary tract. 10

3. (a) Discuss the cultural characteristics and lab diagnosis of *M. tuberculosis*. 5
(b) Schematically draw the life cycle of *plasmodium vivax*. 5

OR

(c) Describe the pathogenicity of HIV virus. 5

(d) Describe laboratory diagnosis of syphilis. 5

4. (a) Discuss Kirby-Bauer method of drug susceptibility test. 2½

(b) Describe E-Test method. 2½

(c) Give mode of action of Nalidixic acid. 2½

(d) Discuss drug resistance by efflux pump mechanism. 2½

OR

(e) Discuss drug resistance by drug inactivating enzyme. 2½

(f) Describe sulphonamide as inhibitor of microbial growth. 2½

(g) Write about liposomes as drug delivery system. 2½

(h) Explain cell wall synthesis inhibitors with suitable example. 2½

5. Write on any **TEN** of the following :

(i) Define exotic disease.

(ii) Define septicemia.

(iii) What is endemic ?

(iv) Define LD₅₀.

(v) Name any two disease causing bacteria of urogenital tract.

(vi) What is gnotobiotic life ?

(vii) Name the test for diagnosis of hepatitis.

(viii) What is significance of Widal test ?

(ix) What is enteric fever ?

(x) What is antimetabolite ?

(xi) What is mode of action of floxacillin ?

(xii) What is MIC ?

1×10