

Fifth Semester B. Sc. Examination

MICROBIOLOGY

Paper - I

Medical Microbiology

Time : Three Hours]

[Max. Marks : 50

- N. B. : (1) All questions are compulsory and carry equal marks.
(2) Draw diagrams and give examples wherever necessary.

1. Describe different modes of transmission.

OR

Describe different methods for control of communicable diseases. 10

2. (a) Differentiate between exotoxins and endotoxins. 5
(b) Give the outline of digestive system and enlist its diseases. 5

OR

- (c) Define and differentiate pathogenicity and virulence. Describe various methods of attenuation. 5
(d) Describe various enzymes responsible for pathogenicity of the parasite. 5

3. Describe the life cycle of plasmodium.

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Contd.

Describe various laboratory methods for the diagnosis of syphilis. 10

4. (a) Give the mechanism of action of penicillin. $2 \frac{1}{2}$
- (b) Describe E-test for in-vitro drug susceptibility test. $2 \frac{1}{2}$
- (c) Explain intrinsic and acquired drug resistance. Give chromosomal and extrachromosomal method of drug resistance. $2 \frac{1}{2}$
- (d) Explain the role of computers in drug designing. $2 \frac{1}{2}$

OR

- (e) Give the mechanism of action of chloramphenicol. $2 \frac{1}{2}$
 - (f) What are antimetabolites ? Describe any one antimetabolite as inhibitor of microbial growth. $2 \frac{1}{2}$
 - (g) Enlist various reasons for development of drug resistance and describe any one of them. $2 \frac{1}{2}$
 - (h) Discuss automated method for in-vitro drug susceptibility testing. $2 \frac{1}{2}$
5. Solve any Ten :—
- (i) Define prodromal phase. 1
 - (ii) Define septicaemia. 1
 - (iii) What is endogenous infections ? 1

- (iv) Define MID and MLD. 1
- (v) Give the role of capsule in invasiveness. 1
- (vi) Why eye infections are less common ? 1
- (vii) What are dane particles ? 1
- (viii) What is PPD ? 1
- (ix) Differentiate between salmonella typhi and paratyphi A and B on the basis of glucose fermentation and H_2S production. 1
- (x) Define semisynthetic drug. 1
- (xi) Name any two drugs which inhibit nucleic acid synthesis. 1
- (xii) What is the difference between liposome and micelle? 1