

B.Sc. (Part—II) Semester—IV Examination
4S : MICROBIOLOGY
(Medical Microbiology)

Time : Three Hours]

[Maximum Marks : 80

Note :—(1) All questions are compulsory.

(2) Draw well labelled diagrams wherever necessary.

1. (a) Fill in the blanks :

(i) Antibody molecule is made up of four _____ chains.

(ii) _____ is a death of tissue by absorption of toxins.

(iii) Virus replication in cell is inhibited by a protein called _____.

(iv) Streptomycin is useful as _____ spectrum antibiotic. 2

(b) Choose the correct alternative :

(i) Cholera is a _____ borne disease.

(a) Vector

(b) Soil

(c) Water

(d) Air

(ii) Coomb's test is an example of :

(a) Precipitation

(b) CFT

(c) Agglutination

(d) None of the above

(iii) Immunity acquired by foetus from mother is called as :

(a) Racial

(b) Species

(c) Herd

(d) Transplacental

(iv) Genetic material in HIV is :

(a) S.S.RNA

(b) D.S.RNA

(c) S.S.DNA

(d) D.S.DNA 2(c) Answer in **one** sentence each :

(i) Define focal infection.

(ii) Give the long form of ELISA.

(iii) Give the long form of CLSI.

(iv) Define haemolysins. 42. (a) Describe vector transmission with suitable example. 4(b) Describe normal flora of intestinal tract. 4(c) Differentiate between pathogenicity and virulence. 4**OR**

- (d) Describe vehicle transmission with suitable example. 4
- (c) Differentiate between exotoxin and endotoxin. 4
- (f) Describe normal flora of upper respiratory tract. 4
3. (a) Explain delayed type of hypersensitivity. 4
- (b) Explain active immunity. 4
- (c) Enlist cells and organs of immune system. 4
- OR**
- (d) Explain type II-hypersensitivity. 4
- (e) Explain general non-specific factors. 4
- (f) Differentiate between T-Lymphocytes and B-Lymphocytes. 4
4. (a) Describe in brief structure of IgM. 4
- (b) Complement fixation test. 4
- (c) Write the properties of antigen. 4
- OR**
- (d) Describe in brief structure of IgG. 4
- (e) Explain in brief agglutination reaction. 4
- (f) Explain monoclonal antibodies. 4
5. Describe morphology, cultural characteristics, pathogenicity and laboratory diagnosis of staphylococcus aureus. 12
- OR**
- Describe morphology, cultural characteristics, pathogenicity and laboratory diagnosis of salmonella typhi. 12
6. Describe the structure, transmission, pathogenesis and preventive measures of HIV virus. 12
- OR**
- What do you mean by hydrophobia ? Describe in detail morphology, transmission and symptoms in man and laboratory diagnosis of Rabies virus. 12
7. (a) Explain inhibition of cell wall synthesis. 4
- (b) Explain Kirby-Bauer Method. 4
- (c) Draw well labelled diagram of different mechanisms of antibiotic action. 4
- OR**
- (d) Describe mode of action of Griseofulvin. 4
- (e) Explain inhibition of protein synthesis. 4
- (f) Explain broth microdilution test. 4