

2009**M.Sc.****3rd Semester Examination****HUMAN PHYSIOLOGY****PAPER—XIV****Full Marks : 40****Time : 2 Hours**

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Write the answers to the questions of each Unit in separate books.

UNIT—27

Answer any two questions.

1. (a) What is Peptidoglycan ?
(b) How do gram-positive and gram-negative bacteria differ with respect to peptidoglycan ?
(c) What is the importance of Outer Membrane of Gram-negative bacterial cell wall ? 3+3+4
2. (a) Mention the major virulence factors of staphylococcus aureus.
(b) Discuss the pathogenesis caused by Staphylococcus aureus.
(c) What is Toxic Shock Syndrome ? 1+7+2
3. (a) Give a brief account of the immuno deficiency caused by HIV in human.

(Turn Over)

(b) What do you understand by opportunistic infections?

(c) What are Retro viruses? 5+2+3

4. Write short notes on : $2\frac{1}{2} \times 4$

(a) Species and Type Strain;

(b) Sterilisation and disinfection

(c) Selective Media

(d) Pure culture

UNIT—28

Answer any *two* questions from the following :

1. (a) What do you mean by Kinetics of immune response.
(b) Write the different surface makers present in the B-lymphocytes.
(c) What is single radial immunodiffusion technique (SRID). 3+4+3

2. Discuss the function of T-helper cell, macrophage (MΦ) and cytotoxic T-cell in cell mediated immunity. 10

3. (a) Explain the difference between antibody affinity and antibody avidity.
(b) Discuss the T-cell and B-cell co-operation in a primary immune response. 3+7

4. Write short notes on the following : 2×5
 - (i) Cytokines as a regulator;
 - (ii) Type-I hypersensitivity reactions.