

2011**M.Sc.****3rd Semester Examination****MICROBIOLOGY****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.

Answer any two questions from each group.

Group — A**[Marks : 20]**

Answer any two questions.

1. (a) What do you mean by U.T.I.?
(b) Enumerate the different microbes causing U.T.I.
(c) Name the organism responsible for Kalezar by mentioning its pathogenicity. Name the stages in which it stays and multiplies inside the vector and human host. 2+3+(2+3)

2. (a) Write about the normal microbial flora of human body.
(b) Write about opportunistic fungal infections. 5+5

(Turn Over)

3. Write notes on (any two) :

5+5

- (a) *Entamoeba histolytica* ;
- (b) Factors influencing nosocomial infections ;
- (c) Micropropagation ;
- (d) B.C.G. ;
- (e) Microbial food poison.

Group — B

[Marks : 20]

Answer any two questions.

4. (a) Write the immunological perspective of booster doses.
 (b) Describe the advantages and disadvantages of live attenuated vaccine.
 (c) How toxoid can be prepared ?
 (d) State the national immunization schedule as per ICMR. 2+3+2+3
5. (a) What are the consequences of designed epitope ?
 (b) What are the strategies for coupling of designed epitope with suitable carrier ?
 (c) Describe briefly on the *in vitro* production of monoclonal antibody. 2+4+4
6. Write notes on (any two) : 5+5
- (a) Principles of flow cytometry ;
 - (b) Application of immunofluorescence ;
 - (c) Competitive ELISA ;
 - (d) Determination of IgM by diffusion technique.