

2012

M.Sc.

2nd Semester Examination

MICROBIOLOGY

PAPER—VII (MCB-201)

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.

Answer any two questions from each group.

Group—A

[Marks : 20]

Answer any two questions.

1. (a) Distinguish between —

- (i) Normal flora and pathogenic organisms.
- (ii) Microbial exotoxin and endotoxin.

(Turn Over)

- (b) Describe the mediators of pathogens during spread into the deep tissue.
- (c) What is dimorphic nature of pathogenic fungi?
(2+2)+5+1
2. (a) Describe the primary and secondary immune response to infection.
- (b) Write the structural feature of major immunoglobulin that generated during secondary immune response.
- (c) Describe the events of cell mediated immunity.
2+4+4
3. Write short notes on (any four) : $2\frac{1}{2} \times 4$
- (a) V-D-J regions of immunoglobulin gene ;
- (b) Importance of TLR (toll like receptor) ;
- (c) Interferons ;
- (d) Mediators type II hypersensitivity;
- (e) Competitive ELISA ;
- (f) Systemic lupus erythematosus ;
- (g) Angiogenesis.

Group—B

[Marks : 20]

Answer any *two* questions.

4. (a) Define oncogene. State the molecular mechanism of transformation of Protooncogene to oncogene caused by Retroviruses.

(b) Describe in brief the structural organization of a typical viroid particle.

(1+5)+4

5. Write short notes :

(i) Acid end point ;

(ii) One step Growth ;

(iii) Genome and Replication of M_{13} .

3+3+4

6. (a) State the molecular events that lead to formation of AIDS after HIV infection.
- (b) Name two antiviral drugs and state their mode of action.

5+5
