2013
M.Sc.
2nd Semester Examination
MICROBIOLOGY
PAPER—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.

Illustrate the answers wherever necessary.

Answer any two questions from each group.

Group — A

[Marks : 20]

Answer any two questions

1. (a) What is adhesion? What are their roles in the establishment of pathogen on specific site of host tissue?

(b) How pathogens spread into the deep layer of host’s tissue?

(Turn Over)
(c) Classify exotoxins according to the cell specificity.

(d) What are hemolysins? 

2. Give an idea about preexisting structural and chemical defenses of plant against pathogens. Write a brief note on the defense through development of genetically Engineering Disease resistant plants.

3. Write short notes on any four:

(a) Phytoalexin;

(b) Dimorphic capacity of host tissue;

(c) Angiogenesis;

(d) Cytopathic effect of virus infection;

(e) Sources of infectious agents;

(f) Healing capacities of host tissue.
Group — B

[Marks : 20]

Answer any two questions:

4. (a) Design an experiment to establish that donor lymphocytes but not the serum antibody could transfer allograft rejection? Describe briefly a method used for HLA typing with suitable diagram?

(b) Name one enzyme allergen? How does it trigger mast cell degranulation? Name one immunosuppressive drug along with its mode of action?

5. Answer the following:

(a) Describe genetic basis of class switching mechanism during antibody formation.

(b) Illustrate in detail the generation of C3 and C5 convertase during complement activation. 5+5

6. Write short notes on any four: 2½ × 4

(a) Hypervariable region of antibody;

(b) NK Cell;

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(c) Grave's disease;
(d) Function of IgA;
(e) Tolerance of autoimmunity;
(f) Erythroblastosis fetalis.