

**2008**

**MICROBIOLOGY**

**PAPER—VII**

*Full Marks : 40*

*Time : 2 hours*

**Answer two questions from each Group**

*The figures in the right-hand margin indicate marks*

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

*Illustrate the answers wherever necessary*

**GROUP—A**

**[Marks : 20]**

**Answer any two questions from the following**

*( Turn Over )*

1. Write the differences between (any *four*):

$2 \frac{1}{2} \times 4$

(a)  $\alpha$  and  $\beta$  homolysin

(b) Exo and endotoxin of bacteria

(c) Cytokines and interleukins

(d) Type I and II hypersensitivity

(e) Innate and acquired immunity.

(f) Antigen and Immunogen.

2. (a) Describe the cytopathic effects of viral infection.

(b) 'Dimorphic nature favours the fungal pathogenesis.'— Justify the statement. What are the major factors that induced dimorphism ?

(c) State the major physiological effects of mycotoxins.

$3 + (3 + 2) + 2$

3. (a) Which antibody generally act as an antigen receptor over B-cell?
- (b) Discuss the B cell - T cell cooperation for production of antibody.
- (c) Describe the immunological basis of Grave's disease.
- (d) What do you mean by allograft and xenograft? 1 + 4 + 3 + 2

GROUP—B

[Marks : 20]

Answer any *two* questions

4. Briefly describe the structure and multiplication of  $T_4$  phase with special reference to DNA replication. 4 + (4 + 2)
5. (a) Briefly mention the components of viral envelope.
- (b) Write a note on cultivation of animal viruses. 5 + 5

6. (a) Give two examples of antiviral drugs and mention their mode of action.
- (b) Describe the plaque assay method for studying a virus.
- (c) Write a short note on Potato virus X.

(2×2) + 3 + 3