



Name :

Roll No. :

Invigilator's Signature :

CS/M.Sc (GE)/SEM-3/MSGEN(ABT)-305B/2012-13

2012

IMMUNOTECHNOLOGY

Time Allotted : $1\frac{1}{2}$ Hours

Full Marks : 35

The figures in the margin indicate full marks.

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

GROUP - A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any *five* of the following :
 $5 \times 1 = 5$

- i) A major disadvantage of attenuated vaccines is the possibility
 - a) because of their capacity for transient growth
 - b) of provide prolonged immune-system exposure to the individual epitopes on the attenuated organisms
 - c) that they will revert to a virulent form
 - d) none of these.

- ii) MHC class I genes are all of the following *except*
 - a) HLA-A
 - b) HLA-C
 - c) HLA-D
 - d) HLA-E.



GROUP - B

(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

2. Write short notes on interleukin-12. 3 + 2
3. Define *M* cells ? What role does a *M* cell play in inducing mucosal immunity.
4. What is the difference between primary and secondary immune responses ?
5. What is missing cell hypothesis ? Are NK cells part of innate or adaptive immunity ? 2 + 3
6. Give a short account of radioimmunoassay.

GROUP - C

(Long Answer Type Questions)

Answer any *one* of the following. $1 \times 15 = 15$

7. Discuss the immune complex mediated hypersensitivity with proper example. Describe various therapeutic strategies for autoimmune disorders. $7\frac{1}{2} + 7\frac{1}{2}$
8. What are interferons ? Mention the different types of interferon. How do interferons participate in signal transduction ? What are the main features of interferon therapy ? 2 + 3 + 5 + 5
9. Write down the mode of action of DNA vaccine. Why the clonal selection of *T* cells are necessary for a healthy immune system ? $7\frac{1}{2} + 7\frac{1}{2}$