



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/M.Tech/INT PhD/Mol.Bio./SEM-3/PHMB-302/2011-12**

**2011**

**IMMUNOTECHNOLOGY**

*Time Allotted : 3 Hours*

*Full Marks : 70*

*The figures in the margin indicate full marks.*

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

1. Define any *ten* of the following : 10 × 1 = 10

- i) Poison
- ii) Toxin
- iii) Xenobiotics
- iv) Prophylaxis
- v) Anaphylaxis
- vi) Chemotherapeutics
- vii) Cytokines
- viii) Antimetabolites



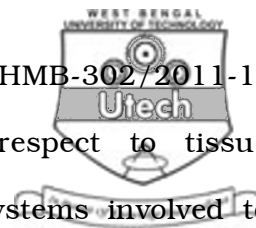
- ix) Epitope
- x) Paratope
- xi) Hybridoma
- xii) Malignant tumour.

2. Answer any *three* questions.  $3 \times 5 = 15$

- i) What is an Inflammatory reaction ? Is that a pre-requisite to Immune reaction ? Justify.
- ii) What are the types of drug-receptor bonding ? Briefly discuss.
- iii) Immunoglobulin and Antibody : Clarify the difference immunologically.
- iv) How is the nutritional requirement maintained in a mammalian cell culture media ?

3. Answer any *three* questions :  $3 \times 10 = 30$

- i) What do you understand by Immunoglobulin therapy ? Describe a specific application approach to that.
- ii) How will you prepare an ideal mammalian cell culture setup ? What is the difference between 'with serum' and 'serum-free' media ? Discuss.



- iii) Classify malignant tumour with respect to tissue specificity. How are the Immune systems involved to combat Cancer ? Discuss briefly.
- iv) Organ transplantation involves 'Immunological rejection phenomenon'. Justify. How is the problem overcome ?

4. Answer any *one* question : 1 × 15 = 15

- i) What do you understand by 'Hybridoma technology' ?  
How is monoclonal antibody prepared in the laboratory ? Enumerate some examples of their use.
- ii) Define and discuss 'Immunodeficiency diseases'. Write what you know about AIDS and the present mode of therapy at the event.

