



Name :

Roll No. :

Invigilator's Signature :

CS/M.Tech(PBIR)/SEM-3/PHMB-302/2012-13

2012

IMMUNOTECHNOLOGY

Time Allotted : 3 Hours

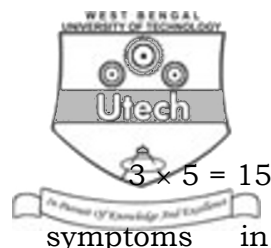
Full Marks : 70

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

- a) Antigen specificity.
- b) Abusive drug.
- c) Extravasations of leucocytes.
- d) Hapten carrier conjugates.
- e) Epitope.
- f) Polyclonal antibody.
- g) Antimetabolites.
- h) Corticosteroid.
- i) Hybridoma.
- j) ADCC.
- k) Paratope.
- l) Immune-complex.
- m) Tumour Antigens.



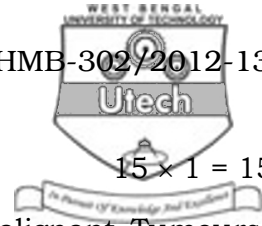
2. Answer any *three* of the following :

- a) Enumerate the characteristic symptoms in inflammatory response. How do the acute and chronic inflammatory reactions differ ?
- b) Describe briefly the role of anti-inflammatory agents. What are NSAIDs ?
- c) Differentiate between Antigens and Haptens. Explain how the haptens can be utilized to produce Antibody.
- d) What is an Adjuvant ? Can adjuvants be used to stimulate therapeutic effects ?

3. Answer any *three* of the following :

3 × 10 = 30

- a) Explain what you mean by "Passive Immunoglobulin Therapy". Describe the first experimental approach by Behring and Kitasato that enabled them to win Nobel Prize.
- b) What do you understand by "Nutritional requirement for *in vitro* mammalian cell culture" ? Justify the use of 'serum free media' in cell culture.
- c) How 'Monoclonal Antibody' is prepared in the laboratory ? Describe briefly their clinical use.
- d) Describe the Immunological basis of 'graft rejection'. Explain the measures taken for Organ transplantation in human.



4. Answer any *one* of the following :

15 × 1 = 15

- a) Differentiate between Benign and Malignant Tumours.
What do you understand by "immunological Escape of Tumour" ? Discuss briefly the role of Tumour Immunotherapy.
- b) Define Acquired Immunodeficiency syndrome.
Enumerate Immunological involvement of HIV infection.
How is HIV therapeutically treated ?
-