

Rahul Shrivastava

Roll No:.....

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- March-April 2017

M.Tech II Semester

COURSE CODE: 14M11BT212

MAX. MARKS: 25

COURSE NAME: IMMUNOTECHNOLOGY

COURSE CREDITS: 03

MAX. TIME: 1.5 Hrs

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

Q1. What are Chimeric and Humanized Antibodies? Illustrating their limitations for therapeutics, explain why humanizing of antibodies is essential and advantageous. [4]

Q2. What is Receiver Operating Characteristic Curve (ROC)? How can ROC curve be used in determining sensitivity and specificity of a diagnostic assay. [4]

Q3. List and describe important parameters which should be considered for a successful Monoclonal Antibody Therapy? [4]

Q4. Why is ELISA preferred over Radioimmuno Assay? Discuss various methods for separation of free antigen from antigen bound to primary antibody required for measurement of radioactivity in a Radioimmuno Assay? [4]

Q5. Answer the following in relation to hybridoma technology: [2 X 2 = 4]

- Utility of using HGPRT (negative) myeloma cells for monoclonal antibody production.
- Requirement of use of 'Aminopterin' for selection of Hybridoma cells.

Q6. Draw a histogram depicting different phases of human cell cycle obtained in a flow cytometry experiment. Draw peak for cells undergoing apoptosis in the histogram. How it can be used for diagnosis of clinical conditions. [5]