JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- May 2017

M.Tech II Semester

COURSE CODE: 14M11BT212   MAX. MARKS: 35

COURSE NAME: IMMUNOTECHNOLOGY

COURSE CREDITS: 03   MAX. TIME: 2 Hrs

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

Q1. Describe the Immunodetection Methods for study of antigen-antibody interactions using Immunohistochemistry. [5]

Q2. Write Notes on: [2.5 X 2 = 5]
a. Glucose Biosensor
b. Potential applications of Biosensors

Q3. What is Antibody directed enzyme prodrug therapy (ADEPT) and GDEPT? How are they helpful in increased selectivity for targeted cell? Explain with example. [5]

Q4. Write Notes on: [2.5 X 2 = 5]
     a. Whole-chromosome painting probes and its applications
     b. Comparative Genomic Hybridization and its utility

Q5. Write the principle of phage display technology. What is bio panning list and draw the steps involved in it? [5]

Q6. What is the Principle of multiplexed immunoassays? Suggest potential applications of the method? [4]

Q7. Describe the CAR design along with function. What are the benefits of CAR T-cell immunotherapy over other immunotherapies used for cancer treatment? [4]

Q8. Compare the immunological and PCR techniques for the diagnosis and detection of plant pathogens (any 4 parameters)? [2]