JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST-1 EXAMINATION- FEBRUARY -2018
B.Tech VI Semester

COURSE CODE: 10B11BT615   MAX. MARKS: 15
COURSE NAME: DIAGNOSTICS & VACCINE MANUFACTURE TECHNOLOGIES
COURSE CREDITS: 04   MAX. TIME: 1 HRS

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

Q1. Provide suitable explanation for the following statements: [1.5 X 4 = 6]

   a. Monovalent antigens are not preferred for precipitation based techniques.

   b. Rocket Immunoelectrophoresis is preferred over immunoelectrophoresis for study of antigen-antibody interaction although it can be used for only negatively charged antigen.

   c. Agglutination inhibition is more sensitive than direct or indirect agglutination reactions for detection of an antigen.

   d. A precipitation band/arc in a double diffusion is formed on one extreme end of the slide but not in the middle of both wells.

Q2. Write Short Notes on: [1.5 X 3 =4.5]

   i.   Prozone Phenomenon

   ii.   Zeta Potential

Q3. Presence of *Mycobacterium tuberculosis* infection in blood samples can be identified by interaction of any of its immunogenic antigen with a complementary antibody; using any precipitation or agglutination based technique. Design an experiment using a method of your choice for diagnosis, with suitable reasons for your choice. Discuss the logistics and applications of such a method.   [4.5]