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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- FEBRUARY 2019

B.Tech VI Semester

COURSE CODE: 10B11BT615

MAX. MARKS: 15

COURSE NAME: Diagnostics and Vaccine Manufacture Technologies

COURSE CREDITS: 4

MAX. TIME: 1 HR

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

Q1. Give reason for the following:

[CO-I] [1.5 X 4 = 6.0]

- SDS-PAGE allows better separation of proteins than Immuno-electrophoresis.
- Monovalent antigens cannot be used for precipitation based techniques.
- Common milk powder can be used as blocking agent in Western Blot Experiments.
- Rocket Immuno-electrophoresis is preferred over Immuno-electrophoresis for study of antigen-antibody interaction although it can be used for only negatively charged antigen.

Q2. Presence of Syphilis infection, caused by *Treponema pallidum* can be identified by interaction 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.

[CO-II][4]

Q3. Write Short Note on:

[CO-II] [2.5 X 2 = 5]

- Quantitative Radial Immunodiffusion
- Crosses (2D) Immuno-electrophoresis