

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
MAKE-UP EXAMINATION- 2016
B.Tech VI Semester

COURSE CODE: 10B11BT615

MAX. MARKS: 25

COURSE NAME: Diagnostics and Vaccine Manufacture Technologies

COURSE CREDITS: 4

MAX. TIME: 1 HR 30 MIN

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

Q1. Describe QA and AC considerations for a Real-Time PCR laboratory used for diagnosis of an infectious agent. [5]

Q2. With respect to Zika virus answer the following: [2+2+1]

- i. Complications that can occur with the Zika virus disease
- ii. Preventive measures that can be taken against Zika virus disease
- iii. Status of Zika virus vaccine

Q3. Differentiate between: [2.5 X 2 = 5]

- i. Competitive ELISA and Sandwich ELISA
- ii. Direct and Indirect Immunofluorescence

Q4. Write short notes on the following techniques and their applications: [3 X 2 = 6]

- i. Nested PCR
- ii. Multiplex PCR

Q5. Describe the principle of a western blot experiments, including; [4]

- i. SDS-PAGE
- ii. Electrophoresis
- iii. Immunodetection