Rahul Srivastava

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- September 2016

B.Tech VII Semester

COURSE CODE: 14B1WBT736 MAX. MARKS: 15

COURSE NAME: Antibody Engineering Technologies

COURSE CREDITS: 03 MAX. TIME: 1Hr

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

Q1. Match the following **[3]**

Monoclonal antibody	Mechanism of Action on Tumor Cell
(A) Cetuximab	(i) Induction of ADCC
(B) Rituximab	(ii) Immunostimulation
(C) Anti-PD-LI mab	(iii) Inhibition of Growth factor
(D) Mab Avastin	(iv) Induction of Apoptosis
(E) Anti-CD20-mab Rituximab	(v) Inhibition of Angiogenesis
(F) Trastuzumab-emtansine	(vi) Drug, toxin (or) radio-isotype mediated therapy

Q2. Discuss the differential circumstances under which an antibody-drug conjugate bystander effect / crossfire effect can be beneficial or detrimental . **[3]**

Q3. Differentiate between the following, illustrating their applications: **[4]**

i. GDEPT and ADEPT

ii. Uncleavable and Cleavable Linkers

Q4. What are the potential obstacles to a successful monoclonal antibody cancer therapy? **[3]**

Q5. Why is humanizing of monoclonal antibodies required? What demerits it overcomes in comparison to mouse monoclonal antibodies. **[2]**