

D. Harsh

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

T2 EXAMINATION-October 2019

B.Tech V Semester

COURSE CODE: 10B11BT514

MAX. MARKS: 25

COURSE NAME: IMMUNOLOGY

COURSE CREDITS: 04

MAX. TIME: 1.5 HRS

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

(CO; Marks)

1. Two vaccines are described below. Would you expect either or both of them to activate T<sub>C</sub> cells? Explain your answer. (CO3; 3)
  - a. A UV-inactivated ("killed") viral preparation that has retained its antigenic properties but cannot replicate.
  - b. An attenuated viral preparation that has low virulence but can still replicate within host cells.
2. What is prozone effect? Give various reasons that lead to this effect. (CO2; 3)
3. Write a note on the sequence of events that occurs during for B cell activation by a T-dependent antigen. (CO3; 3)
4. Write a note on Radioimmunoassay (RIA) and Immunofluorescence. (CO2; 3)
5. Give an experimental demonstration that shows that processing of antigen is required for recognition by T cells. (CO3; 3)
6. Give detailed description of various mechanisms of antibody diversity generation. (CO2; 5)
7. Write a note on class I and class II MHC giving their structure. What role do these play in disease susceptibility? (CO2; 5)