JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST-2 EXAMINATION- APRIL -2018
B.Tech VIII Semester

COURSE CODE: 15B1WBT839

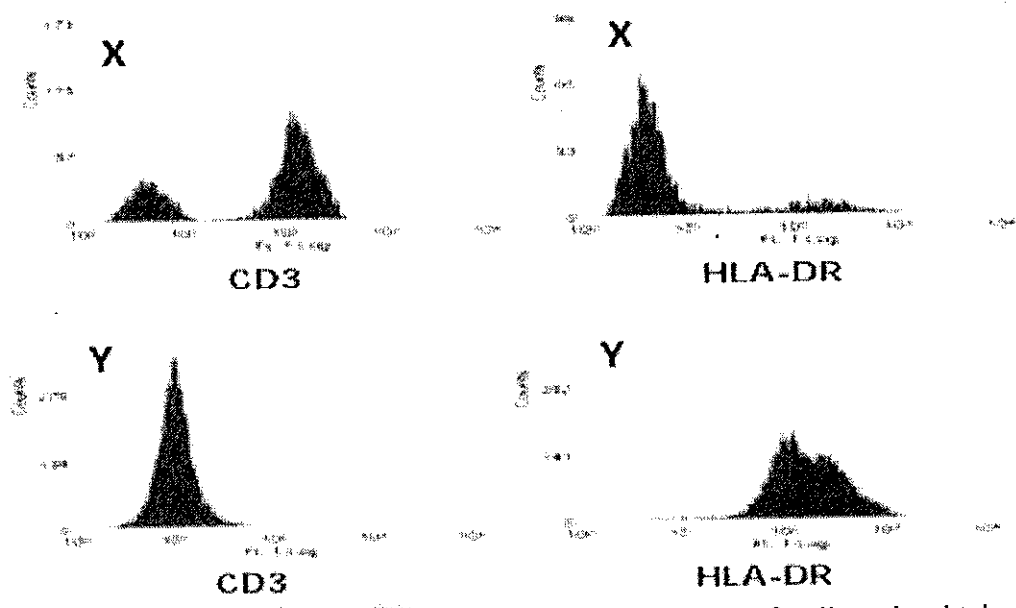COURSE NAME: INFECTIOUS DISEASES

COURSE CREDITS: 03

MAX. MARKS: 25

MAX. TIME: 1 HRS 30 Mins

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

Q1. Given below is a flow-cytometry data indicating fluorescence obtained using Anti-CD3 and Anti-HLA-DR antibodies from two individuals X and Y. Explain the data obtained in both sets and predict the diseased condition which can be diagnosed using given data sets. **[4]**

Q2. Draw a typical cell cycle histogram describing different phases of cell cycle obtained for diploid eukaryotic cells using Flow Cytometry. Mention location of apoptotic cells in the histogram with suitable explanation. **[4]**

Q3. What is MDR-TB? Explain the therapeutic regimen used for Tuberculosis and resistance mechanisms and strategies adopted by the *Mycobacterium tuberculosis* bacteria. **[4]**

Q4. Discuss the effect of following against Urinary tract infections: **[2 X 2 = 4]**
   i.   Estrogen
   ii. Fluoroquinolones

Q5. Explain the following in reference to Clinical Trials? **[2 X 2 = 4]**
   i.   Informed consent and double-blind study
   ii. Inclusion/Exclusion Criteria of a volunteer

Q6. You are provided with a tissue section after biopsy from a patient, describe various step you would use to diagnose the presence or absence of cancer in the sample. **[5]**