

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- FEB-2023

COURSE CODE (CREDITS): 18B1WBT632 (3)

MAX. MARKS: 15

COURSE NAME: Infectious Disease

COURSE INSTRUCTORS: Dr. Gopal Singh Bisht

MAX. TIME: 1 Hour

*Note: All questions are compulsory. Marks are indicated against each question in square brackets.*

Q1. Answer the following questions. [2x3=6] [COI]

- I. Evaluate direct and indirect method of disease transmission. What are the element in chain of infection and how it can be broken? What is the best way to reduce one's chances of getting an infectious disease?
- II. Which of the following is a proof of disease state and why? A) Pathogen X is isolated from a patient b) Antibodies against pathogen X are found in the patient.
- III. Consider following important host factors and comment how these factors help in deciding antibiotic therapy.
  - a) Age and underlying diseases ( Hepatic and renal dysfunction)
  - b) Duration of hospitalization

Q2. How pathogenic bacteria evade human immune system? How would immune response be different if a patient has a viral infection instead of bacterial infection? [3][[COII]

Q3. Compare followings. [3][CO1]

- a) Infection vs. Colonization
- b) Incubation period vs. Latent period
- c) Exo toxin vs Endotoxin

Q4. Explain pharmacokinetic profile of typical antibiotics by plotting graph of drug concentration vs. time. Evaluate the importance of parameters such as a)  $T > MIC$  b)  $C_{max}/MIC$  c)  $AUC/ MIC$  for suggesting successful treatment of bacterial infection. [3][COII]