Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058, India

(Autonomous College Affiliated to University of Mumbai)

Mid Semester Examination

Mar 2019

Max. Marks: 20 **Duration: 60 Mins.**

Class: M.Tech. **Semester: II**

Course Code: CE921 **Branch: Computer Engineering**

Name of the Course: Network Analysis and Design

Instruction:

(1) All questions are compulsory

(2) Draw neat diagrams

(3) Assume suitable data if necessary

Q No.		Max. Marks	CO
Q.1	What is Additive Increase and Multiplicative Decrease Mechanism for TCP Congestion Control? Consider an instance of TCP's Additive Increase Multiplicative Decrease(AIMD) algorithm where the window size at the start of the slow start phase is 2 MSS and the threshold at the start of the first transmission is 8 MSS. Assume that a timeout occurs during the fifth transmission. Find the congestion window size at the end of the tenth transmission. OR What is slow start in TCP Congestion Control? Why is the requirement of the slow-start phase in TCP congestion control?	05	CO1
Q.2	Differentiate between IPv4 and IPv6	5	CO1
Q.3	Illustrate the working of Routing Information Protocol (RIP). How the slow convergence problem is addressed in RIP.	5	CO1
Q.4	Illustrate the working of Multiple Access with Collision Avoidance with Acknowledgement (MACAW) protocol.	5	CO3