POSSESION OF MOBILES IN EXAM IS UFM PRACTICE.

Name _____ **Enrollment No.**_____

Jaypee Institute of Information Technology, Noida

T-1 Examination, 2024

B.Tech 6th Semester

Course Title: Telecommunication Network **Maximum Time: 1 Hr**

Course Code: 15B11EC611 **Maximum Marks: 20**

CO1	To understand the basic concepts of Telecommunication network model, traffic engineering and switching technology. Also, to understand various mechanisms involved in OSI model, TCP/IP and LAN access protocols, ATM and ISDN.
CO2	To apply the concepts of traffic engineering, switching technologies and various network protocols for solving network related problems.
CO3	To analyze the link utilization and data packet generated after incorporation of data link error control and flow control mechanisms.
CO4	To apply the concept of subnetting for evaluating address blocks in a network. Applying various routing algorithms to predict routing path for communication between two nodes.

Note: Attempt all the questions

Q1. A call processor in an exchange requires 120 ms to complete 1 process of the call. What is the BHCA rating for the processor? If the exchange is capable of carrying 700 E of traffic, what is CCR? Assume call holding time is 2 mins. **[CO2(Applying),4 Marks]**

Q2. For a 3-stage switching network having 256 inlets and 256 outlets, find out minimum number of switching elements, if the switch is: **[CO2(Applying),4 Marks]**

a) blocking switch

b) non-blocking switch

Q3. A 64x32 basic time division switch is operating in sequential read/random write mode. Find the following: **[CO2(Applying),4 Marks]**

a) Number of address lines b) Number of data lines

c) Size of data memory d) Size of control memory

e) Contents of control memory for following connections of input and output:

50……30 **5……2**

23……28 **16……32**

Q4. Explain the working of a memory- controlled time division space switch with the help of a suitable diagram. **[CO1(Understanding),4 Marks]**

Q5. Derive the expression of blocking probability for a 3-stage network. **[CO1(Understanding),4 Marks]**