



Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058, India
(Autonomous College Affiliated to University of Mumbai)

End Semester Examination Synopsis

Max. Marks: 100

Class: T.E.

Course Code: ETC603

Name of the Course : Computer Communication Telecom Networks

Duration: 3Hrs

Semester: VI

Branch: Electronics and Telecommunication Engg.

Instructions:

- (1) All Questions are Compulsory
- (2) Draw neat diagrams
- (3) Assume suitable data if necessary

Question No.		Max. Marks	CO
Q1a)	Discuss the role of different layers of OSI Diagram=1M Functional role of layer = 9M	10	CO1
Q1b)	Draw and explain with neat sketch of TCP/IP protocol suit with different layer wise protocol. Detail diagram with protocol=2M Role of each protocol=8M OR Explain unicast, multicast, broadcast with example of IP address	05	CO1
Q1c)	Explain the working principle of basic model of TFTP Diagram =1M Phase wise details=4M	05	CO1
Q2a)	Compare between TCP and UDP protocol five points of comparison =5M OR Compare between circuit switching and packet switching five points of comparison =5M	05	CO4
Q2b)	Describe the steps of connection establishment in 3 way handshaking in TCP Connection establishment, data transfer, connection termination with diagram =4+4+2=10	10	CO4
Q2c)	What do you mean by congestion control? explain any one mechanism to control the congestion	05	CO4



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	Congestion control=1M Mechanism with diagram=4M		
Q3a)	What do you mean by peer to peer communication? Explain working principle of peer to peer file sharing protocol. Peer to peer commu.=2M File sharing protocol=8M OR Name the protocol that map domain name to IP address? Draw and Explain packet format of that protocol. Name of protocol=1M Proper Packet format of DNS with all details=8M	10	CO5
Q3b)	What do you mean by socket address? Explain with example. Define the role of socket programming. Socket address with example=1M Socket programming details with diagram=4M	05	CO5
Q3c)	Discuss the working principal of SMTP Diagram=1M Explanation 4M	05	CO5
Q4a)	Classify unicast routing protocol. Give the role of each field of packet format of OSPF Classification =2M OSPF packet format with details=8M	05	CO3



Q4b)	<p>Evaluate the shortest path tree for node B using Dijkstra's algorithm.</p> <div style="text-align: center;"> </div> <p>Initialization to final shortest path stepwise marks</p> <p style="text-align: center;">OR</p> <p>Compare and contrast between distance vector algorithm and Link state algorithm.</p> <p>Functional difference with specific protocol between algorithm</p>	10	CO3
Q4c)	<p>Justify that BGP is exterior protocol</p> <p>Discussion of AS with diagram.</p>	5	CO3
Q5a)	<p>How the collision is avoided using CSMA /CA mechanism?</p> <p>Algorithm steps with flow graph</p>	5	CO2
Q5b)	<p>Give the Physical-layer Services of following</p> <p>a)Wi Max b)Optical fiber</p> <p>Description with features of each transmission media</p> <p style="text-align: center;">OR</p> <p>a)Frequency Division Multiplexing b) Time Division Multiplexing</p> <p>Diagram=2M</p> <p>Detail explanation=8M</p>	10	CO2



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Q5c)	Compare between HUB, Bridge and Router Mapping of OSI layer with devices is IMP with functional difference	5	CO2