TAPI DIPLOMA ENGINEERING COLLEGE [647], SURAT
COMPUTER ENGINEERING DEPARTMENT [07]
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TERM: 01/02/2024 To 25/05/2024
SUBJECT CODE: 4340703
SUBJECT NAME: COMPUTER NETWORKING
STUDENT NAME:

DIVISION:
BATCH:
ENROLLMENT NO:

SR. NO	DATE	AIM OF EXPERIMENT	PAGE NO.	(1)	(2)	(2)	(2)	(3)	TOTAL (10)	SIGN
1		Connect computer using given topology with wired media. Assume six devices are arranged, if in: a) bus topology b) ring topology c) star topology d) mesh topology Find out number of cables (links), ports needed in each device and total number of ports needed in entire network for each of above stated topology.								
2		Study about OSI model network Layers.								
3		Determine whether following IPv4 address are valid or invalid. If valid IPv4 address then find class, Network and Host ID of an IPv4 address. If invalid IPv4 address then write reason for the same. a. 1.4.5.5 g. 221.34.7.8.20 b. 75.45.301.14 h. 240.230.220.89 c. 111.56.045.78 d. 192.226.12.11 e. 130.45.151.154 f. 11100010.23.14.67								
4		Determine Class and Network Address for given IPv4 address and subnet mask. 	IPv4 address	Subnet Mask	Class	Subnet	 	172.16.2.10	255.255.255.0			 	10.6.24.20	255.255.240.0			 	10.30.36.12	255.255.255.0											
5		Subnet the IP address 216.21.5.0 into 30 hosts in each subnet.								

Vision
"To mould technocrat in the field of computer engineering with innovation skills, moral values and societal concerns".

6		Identify valid IPv6 addresses and if invalid IPv6 address then write reason for the same: a) 2001 : db8: 3333 : 4444 : 5555 : 6666 : 7777 : 8888 b) : : c) 225.1.4.2 d) 2001: db8: : e) : : 1234 : 5678 f) 2001 : db8: : 1234 : 5678 g)2001:0db8:0001:0000:0000:0ab9:C0A8:0102 h) fe80:2030:31:24									
7		Prepare and Test Straight UTP Cable and Cross UTP Cable.									
8		Study and Test various Network devices available at Department/Institute. (Repeater, Hub, Switch, Bridge, Router and Gateway).									
9		Study of firewall in providing network security.									
10		Run basic utilities and network commands: ipconfig, ping, tracert, netstat, pathping , route									

Experiment Evaluation Metrics

Sr. No.	Performance Indicators For PrOs	Marks (10)
1	Regularity	1
2	Problem Analysis	2
3	Development Of Solution	2
4	Testing of Solution	2
5	Mock Viva Test	3