



Sardar Patel Institute of Technology

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

Makeup-Examination-Synoptic/Breakup

January 2020

Max. Marks: 60

Class: B.E./BTech.

Course Code: ELE 73B

Name of the Course: Computer and Communication Networks

Duration: 3 Hrs.

Semester: VII

Branch: ETRX

Instruction:

- 1) All questions are compulsory
- 2) Assume suitable data if necessary
- 3) Figure to the right indicate full mark

Q. No.		Max. Marks	CO-BL-PI
1 a)	CSMA/CD works well for wired networks, however, in wireless networks, there is no way for the sender to detect collisions the same way CSMA/CD does since the sender is only able to transmit and receive packets on the medium but is not able to sense data traversing that medium.	5	2-3-2.2.4
b)	<ol style="list-style-type: none">1. Straight through cable... 2marks2. Crossover cable ...2marks3. Ethernet crossover cable...2 marks4. Coaxial cable ...2marks5. Comparison Hub and switch ...2 marks	10	1-2-2.1.2
2 a)	Packet arrival rate exceeds the outgoing link capacity, Insufficient memory to store arriving packets , Bursty traffic, Slow processor. Warning bit , Choke packets, Load shedding OR What is ALOHA? Derive expression for efficiency of pure and slotted Aloha. Ans: definition ...2 marks Merits and diagrams8 marks	10	2-3-2.2.3
b)	Data Link Layer. Traditional MAC addresses are 12-digit (6 bytes or 48 bits) hexadecimal numbers. First 24 bits identifies vendor.	5	1-2-2.1.2

3a)	<p>Ans: Subnet Mask Works example (02 Marks)</p> <p>IP Address :192.168.1.1 Subnet Mask : 255.255.255.0</p> <p>ANDING PROCESS :</p> <p>192.168.1.1 = 11000000.10101000.00000001.00000001</p> <p>255.255.255.0 = 11111111.11111111.11111111.00000000</p> <p>=====</p> <p>192.168.1.0 = 11000000.10101000.00000001.00000000</p> <p>Class C : N.N.N.H (08 Marks)</p> <p>110xxxxx.xxxxxxxx.xxxxxxxx.xxxxxxxx</p> <p>Class C : 192.168.1.0 No. of Subnets: 2; No. of hosts: 62/subnets. if you convert 2 host bits to network bits, then customize subnet masks is 255.255.255.192 subnet range: 192.168.1.64 - 192.168.1.191</p> <p style="text-align: center;">OR</p> <p>Class A Priority Bit is 0, 0.0.0.0 to 127.255.255.255</p> <p>Class B Priority Bit is 10, 128.0.0.0 to 191.255.255.255</p> <p>Class C Priority Bit is 110, 192.0.0.0 to 223.255.255.255</p>	10	3-3-3.1.6
b)	1) DNS-- UDP 2) HTTPS--TCP 3) FTP-TCP 4) DHCP-UDP 5) SMTP-TCP.	5	1-2-2.1.2
4a)	<p>In a SNAT, the destination IP address is maintained and the source IP address is changed. ... A DNAT, by way of contrast, occurs when the destination address is changed and the source IP address is maintained. (2 Marks)</p> <p>A firewall is the appliance that creates that isolation, by restricting traffic both between the intranet and the DMZ and the DMZ and other networks it's exposed to. Firewall is a device. sometimes it can be a software as well. DMZ is a Logical or Physical Network. (3 Marks)</p>	5	4-3- 2.2.3
b)	<p>Use of mono alphabetic algorithm, encryption and decryption ...5 marks each</p> <p style="text-align: center;">OR</p> <p>Define the following with example:...2.5 marks each</p> <p>1) 1) Trojan Horse 2) WEP 3) DoS attacks 4) Zombie attacks</p>	10	4-3- 2.2.3
		10	4-3- 2.2.3