

Department of Electronics and Communication Engineering

Modes of Teachers' Assessments


Course Code: ECT357

Course: Computer Networks

Session: 2021-22

Sr. No.	Mode (5 Marks each)	Duration
1	MCQ	After the completion of Unit-I and Unit -II
2	MCQ	
3	MCQ	After the completion of Unit-III and Unit -IV
4	MCQ	
5	Assignment, MCQ test and presentation (Flipped Classroom)	After the completion of Unit-V and Unit -VI
6	Assignment, MCQ test and presentation (Flipped Classroom)	


(Dr. D. J. Dahigaonkar)


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Course Coordinators

ShriRamdeobaba College of Engineering and Management, Nagpur
Programme Name : Electronics and Communication (ECU)
Subject Name : Computer Network (ECT357)
2021-22

Group Assignment 1 & 2

(Marks = 05)

1) Choose the TRUE statement(s):

- A. Repeaters and Hubs are layer 2 devices.
- B. A repeater regenerates signals, but typically a hub does not unless it is a powered hub.
- C. If a repeater has more than two ports, it is practically a powered hub.
- D. Repeaters and Hubs separates collision domains.

2) Bridges are separating collision domain by:

Reading packets, checking MAC address, forwarding packets to the appropriate port.

Regenerating the signals of the physical medium.

Reading packets, checking IP address, forwarding packets to the appropriate port.

Using SDN based routing.

3) Choose the option(s) which is/ are TRUE:

- A. CSMA CA is required for wired connections to avoid collisions.
- B. CSMA CD is required for wireless connections to mitigate hidden station problem and exposed station problem.
- C. CSMA CD is an application layer protocol.
- D. CSMA CA is required for wireless connections to mitigate hidden station problem and exposed station problem.

4) When a station (source) accesses the network and send Request to Send (RTS), the other stations other than the destination _____

5) Choose the correct option:

Medium Access Control (MAC) is responsible for _____.


6) Which statement is FALSE?


1. Synchronous Medium Access Control (MAC) technique is not optimal since the needs of stations might be unpredictable in a LAN.

2. FDM and TDM are examples of synchronous MAC.
 3. Contention based MAC is less efficient than Reservation based MAC for heavy loads and stream traffic.
 4. Token passing based MAC is typically used for bus topologies, while CSMA/CD is used for ring topologies.
- 7) What is the correct sequence of events that a station follows in CSMA/CD protocol?
- 8) True/False: All the devices connected to hub are in a single collision domain and broadcast domain.
- 9) Correct Options:
- (i) Virtual circuit is a packet switching approach.
 - (ii) In datagram approach packet may arrive out of order. Which of the following statement(s) is/are correct.
- 10) Circuit switching in a network, takes place at _____

Questions and CO mapping

SN	Q.No.	CO
1.	1.	1
2.	2.	1
3.	3.	3
4.	4.	3
5.	5.	3
6.	6.	3
7.	7.	3
8.	8.	1
9.	9.	1
10.	10.	1


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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGG

TEACHERS' ASSESSMENT

Course: Computer Networks (ECT357)

Max. Marks: 05

MCQ Test for TA 3 & TA4

1. You need 500 subnets, each with 100 usable host addresses per subnet. What network mask will you assign using class B network address? **(CO5)**

- I. 255.255.255.252
- II. 255.255.255.128
- III. 255.255.255.0
- IV. 255.255.254.0

2. The subnet mask for a particular network is 255.255.31.0. Which of the following pairs of IP addresses could belong to this network? **(CO5)**

- I. 172.57.88.62 and 172.56.87.233
- II. 10.35.28.2 and 10.35.29.4
- III. 191.203.31.87 and 191.234.31.88
- IV. 128.8.129.43 and 128.8.161.55

3. **(CO4)**

_____ signal is the optical modulation of an STS-n (or STM-n) signal.

- A. OC-n
- B. TDM-n
- C. FDM-n
- D. none of the above

- I. A
- II. B
- III. C
- IV. D

4. WLAN security standards specified by **(CO4)**

- I. IEEE 802.11
- II. IEEE 802.11g
- III. IEEE 802.11b
- IV. IEEE 802.11i

5. (CO2)

you connect your personal computer (end device / host) to the internet, how does it know own IP address, and the Gateway IP address to use for sending packets to remote hosts, without any manual configuration?

- A. Domain Name System (DNS)
- B. From its own routing table.
- C. Address Resolution Protocol (ARP)
- D. Dynamic Host Configuration Protocol (DHCP)

- I. A
- II. B
- III. C
- IV. D

6. Why do we consider dividing an IP address into network address and host address (CO5)

- I. To increase the total number of IP addresses possible
- II. So that the router route the packets based on host address
- III. To avoid the overhead of storing all possible host IP addresses in each router
- IV. For resolving IP address from domain name

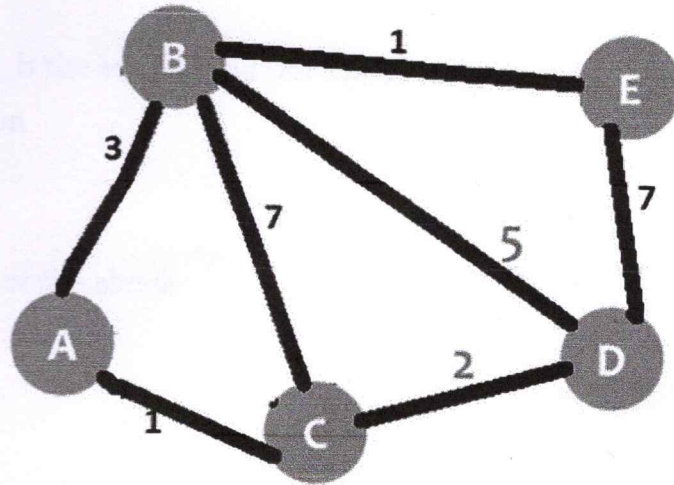
7. (CO4)

ATM is a cell relay protocol that _____.

- A. has moved software functions to hardware
- B. is connection-oriented
- C. can interface with existing systems
- D. all of the above

- I. A
- II. B
- III. C
- IV. D

8. Calculate the shortest path to all node. Assume that node C is the source node (CO3)



A

C	2
A	4
B	3
D	1
E	0

B

C	0
A	1
B	3
D	2
E	4

C

C	0
A	1
B	4
D	2
E	5

D

C	2
A	1
B	3
D	2
E	5

- I. A
- II. B
- III. C
- IV. D

9. (CO4)

The _____ layer adds a 5-byte header to a 48-byte segment.

- A. AAL
- B. ATM
- C. physical
- D. SAR

- I. A
- II. B
- III. C
- IV. D

10. (CO4)

A _____ is the end-to-end portion of the network between two STS multiplexers

A. section

B. line

C. path

D. none of the above

- I. A
- II. B
- III. C
- IV. D



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TEACHERS' ASSESSMENT

Course: Computer Networks (ECT357)

Max. Marks: 05

Group Assignment for TA 5 & TA6 (CO2)

Sr. No.	Topic	Roll Nos.				
		1	19	44	58	81
1	Ciphers	1	19	44	58	81
2	DES—The Data Encryption Standard,	2	20	45	61	82
3	AES—The Advanced Encryption Standard,	3	21	46	62	83
4	RSA Algorithm	4	22	47	63	84
5	Symmetric-Key Signatures,	5	23	48	65	85
6	Public-Key Signatures	8	25	50	71	101
7	Public Key Infrastructures	11	31	51	72	102
8	IPsec (IP Security)	12	32	52	73	103
9	Firewalls	13	33	53	74	104
10	Virtual Private Networks	14	34	54	75	105
11	Wireless Security	16	41	55	77	106
12	PGP —Pretty Good Privacy	17	42	56	78	107
13	S/MIME	19	43	57	79	

TA5/6

- Students should initially read the study material provided and search related additional study material in books/website etc.
- Discuss the contents with group members and submit photograph of the discussion. Submit a write-up (1-2 pages, but not limited to) (No plagiarism) OR Present seminar on anyone topic. (5 marks)
- MCQ test (Unit 5 and 6) (5 marks)

Last date of Submission: 19/04/2022


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