

SRM Institute of Science and Technology College of Engineering and Technology

Batch 2
SET B

DEPARTMENT OF ECE

SRM Nagar, Kattankulathur – 603203, Chengalpattu District, Tamilnadu

Academic Year: 2022-23 (EVEN)

Test: CLAT-2

Course Code & Title:18ECC303J & COMPUTER COMMUNICATION NETWORK

Year & Sem: III & VI

Date: 05.04.2023

Time: 08:00 to 09:40 AM

Max. Marks: 50

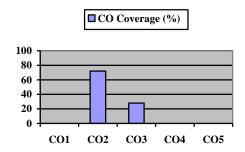
Course Articulation Matrix:

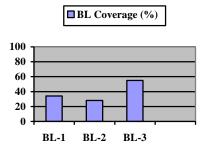
18ECC303J - Computer Communication Networks			Program Outcomes (POs)													
CO	G (GQ)		Graduate Attributes								PSO					
CO	Course Outcomes (COs)	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
1	Express the basic services and concepts related to internetworking.	-	-	-	-	-	-	3	-	-	-	-	2	-	-	-
2	Define the basic OSI model architecture and its lower layer functions.	-	-	2	-	-	-	1	-	-	ı	-	-	ı	-	3
3	Apply the various Network Layer concepts, mechanisms and protocols.	-	-	3	-	-	1	2	-	-	ı	-	-	ı	-	-
4	Analyze the services and techniques of Transport Layer.	-	-	-	-	-	-	2	-	-	-	-	-	-	-	3
5	Produce the various services and protocols in Application Layer.	-	-	2	-	-	-	-	-	-	ı	-	-	ı	-	3
6	Evaluate the various Networking concepts and Routing protocols.	-	-	-	-	1	-	-	-	-	-	-	2	-	-	3

Q.	PART - A (10 X 1 = 10 Marks)	Mark	BL	CO	PO
No	Answer all the questions				
1	Which layer is considered as end user layer?	1	1	2	3
	a. Application b. Session c. Presentation d. Transport				
2	The network layer is responsible for the delivery of a	1	2	3	3
	packet.				
	a. Source to source b. Source to destination c. Process to				
	process d. Process to source				
3	In CRC redundancy is used for which purpose?	1	1	2	7
	a. High data rate b. Error detection c. blocking message				
	d. Source coding				
4	Stop and wait protocol is in nature.	1	1	2	7
	a. Full-duplex b. Simplex c. Half-duplex d. Multiplex				
5	What type of acknowledgement is used in Go-Back-n protocol?	1	1	2	7
	a Null frama h Error centric a Individual d Comulativa				
	a. Null frame b. Error centric c. Individual d. Cumulative	1	1	2	2
6	CSMA-CD is used in which type of network?	1	1	2	3

Which one is not a HDLC frame?		a. WiFi b. GSM c. Ethernet LAN d. Bluetooth				
	7	Which one is not a HDLC frame?	1	1	2	3
Segments of the same LAN		a. I-Frames b. H-Frames c. S-Frames d. U-Frames				
Segments of the same LAN a. Gateways b. Switches c. Repeaters d. Routers	8	does not convolly connect true I ANC it connects true	1	1	2	7
a. Gateways b. Switches c. Repeaters d. Routers 9 Change the IP addresses (10000001 00001011 11101111) 1 3 3 7 a. 0X810B0BEF or 810B0BEF16 b. 0XC10B0BFF or B10B0BEF16 c. 0XB10B0BEF or 810B0BF16 d. 0X71BB0BEF or 810B0BBF16 10 Find the class of the address: 193.14.56.22 1 1 1 3 7 a. Class A b. Class B c. Class C d. Class D PART B (4 X 4 = 16 Marks) Answer Any Four Questions 11 Compare Stop and wait protocol with Sliding window? 4 2 2 3 3 (000) and (011)? 13 Discuss different types of modes in HDLC? 4 1 2 3 3 (1fferent types?) What is Hamming distance? Find the Hamming distance between (000) and (011)? 14 Draw Supervisory frame (S- Frame) diagram and write its different types? What is usbnetting? 4 1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		·				
Change the IP addresses (10000001 00001011 10001011 1110111)		segments of the same LAN				
Change the IP addresses (10000001 00001011 10001011 1110111)		a Gateways h Switches c Repeaters d Routers				
from binary notation to hexadecimal notation. a. 0X810B0BEF or 810B0BEF16 b. 0XC10B0BFF or 810B0BEF16 c. 0XB10B0BEF or 810B0BEF16 d. 0X71BB0BEF or 810B0BFF16 d. 0X71BB0BEF or 810B0BFF16 10 Find the class of the address: 193.14.56.22 1 1 1 3 7 a. Class A b. Class B c. Class C d. Class D PART - B (4 X 4 = 16 Marks) Answer Any Four Questions 11 Compare Stop and wait protocol with Sliding window? 4 2 2 3 12 What is Hamming distance? Find the Hamming distance between (000) and (011)? 13 Discuss different types of modes in HDLC? 4 1 2 3 14 Draw Supervisory frame (S- Frame) diagram and write its different types? 15 What is subnetting? What is the subnetwork address if the destination address is 200.45.34.56 and the subnet mask is 255.255.240.0? 16 What is packetizing? Why does network layer protocol provide this service to the transport layer? PART - C (2 X 12 = 12 Marks) Answer Any Two Questions 1 a. What are the persistence methods in CSMA? Explain all in detail with flow diagram. b. Explain in detail about CSMA/CD protocol. 18 Explain in detail about CSMA/CD protocol. 18 Explain in detail about CSMA/CD protocol. 19 a. Find the Class, the Block, and the Range of the given network address: (1) Network Address: 17.0.0.0 (2) Network Address: 17.0.0.0 (2) Network Address: 17.0.0.0 (3) Network Address: 220.34.76.0 b. Draw the flow diagram to find the class of classful addressing. Explain this for the following address: 101000111 1101111 1000110111111	9		1	3	3	7
a. 0X810B0BEF or 810B0BEF16 b. 0XC10B0BFF or B10B0BEF16 c. 0XB10B0BEF or 810B0BFF16 d. 0X71BB0BEF or 810B0BFF16 d. 0X71BB0BEF or 810B0BFF16 d. 0X71BB0BEF or 810B0BFF16 d. 0X71BB0BEF or 810B0BBF16 a. Class A b. Class B c. Class C d. Class D PART - B (4 X 4 = 16 Marks) Answer Any Four Questions 11 Compare Stop and wait protocol with Sliding window? 4 2 2 3 12 What is Hamming distance? Find the Hamming distance between (000) and (011)? 13 Discuss different types of modes in HDLC? 4 1 2 3 14 Draw Supervisory frame (S- Frame) diagram and write its different types? What is subnetting? What is subnetting? What is the subnetwork address if the destination address is 200.45.34.56 and the subnet mask is 255.255.240.0? 16 What is packetizing? Why does network layer protocol provide this service to the transport layer? PART - C (2 X 12 = 12 Marks) Answer Any Two Questions 17 a. What are the persistence methods in CSMA? Explain all in detail about CSMA/CD protocol. 18 Explain the following error detection methods as per instructions; Explain VRC, Explain LRC, Explain CRC and find CRC for the data blocks 100100 with divisor 1101 19 a. Find the Class, the Block, and the Range of the given network address; (1) Network address: 17.0.0.0 (2) Network Address: 17.0.0.0 (2) Network Address: 17.0.0.0 (3) Network Address: 220.34.76.0 b. Draw the flow diagram to find the class of classful addressing. Explain this for the following address: 101000111 1101111 10001011 01101111		,	1	3	3	,
b. 0XC10B0BFF or 810B0BEF16 c. 0XB10B0BEF or 810B0BFF16 d. 0X71BB0BEF or 810B0BF16 10 Find the class of the address: 193.14.56.22		Trom omary notation to normale motation				
b. 0XC10B0BFF or 810B0BEF16 c. 0XB10B0BEF or 810B0BFF16 d. 0X71BB0BEF or 810B0BF16 10 Find the class of the address: 193.14.56.22		a. 0X810B0BEF or 810B0BEF ₁₆				
C. OXB10B0BEF or 810B0BFF16 d. OX71BB0BEF or 810B0BFF16 d. OX71BB0BFF16 d. OX71BB0BF16 d. OX71BB0B0BF16 d. OX71BB0BBF16 d. OX71BB0BBF16						
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b. Explain in detail about CSMA/CD protocol. 18 Explain the following error detection methods as per instructions; Explain VRC, Explain LRC, Explain CRC and find CRC for the data blocks 100100 with divisor 1101 19 a. 6+6 3 3 7 Find the Class, the Block, and the Range of the given network address; (1) Network address: 17.0.0.0 (2) Network Address: 132.21.0.0 (3) Network Address: 220.34.76.0 b. Draw the flow diagram to find the class of classful addressing. Explain this for the following address: 10100111 11011011 10001011 01101111	1/	1	0+0	1	2	3
Explain the following error detection methods as per instructions; Explain VRC, Explain LRC, Explain CRC and find CRC for the data blocks 100100 with divisor 1101 19 a. 6+6 3 3 7 Find the Class, the Block, and the Range of the given network address; (1) Network address: 17.0.0.0 (2) Network Address: 132.21.0.0 (3) Network Address: 220.34.76.0 b. Draw the flow diagram to find the class of classful addressing. Explain this for the following address: 10100111 11011011 10001011 01101111		<u> </u>				
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CRC for the data blocks 100100 with divisor 1101 19 a. 6+6 3 7 Find the Class, the Block, and the Range of the given network address; (1) Network address: 17.0.0.0 (2) Network Address: 132.21.0.0 (3) Network Address: 220.34.76.0 b. Draw the flow diagram to find the class of classful addressing. Explain this for the following address: 10100111 11011011 10001011 01101111	10		12	3		3
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(3) Network Address: 220.34.76.0 b. Draw the flow diagram to find the class of classful addressing. Explain this for the following address: 10100111 11011011 10001011 01101111						
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Explain this for the following address: 10100111 11011011 10001011 01101111		(2)				
Explain this for the following address: 10100111 11011011 10001011 01101111		b. Draw the flow diagram to find the class of classful addressing.				
10100111 11011011 10001011 01101111						
20 In Go-back N protocol, why the size of the sender window must 12 3 2 3	20	In Go-back N protocol, why the size of the sender window must	12	3	2	3
be less than 2 ^m and explain with neat diagram.		be less than 2 ^m and explain with neat diagram.				

Course Outcome (CO) and Bloom's level (BL) Coverage in Questions





Approved by the Course Coordinator Register No.:

Name of the Student:

			Part- A (10 x 1= 10 Mar	ks)	
Q. No	CO	PO	Maximum Marks	Marks Obtained	Total
1	CO2	3	1		
2	CO3	3	1		
3	CO2	7	1		
4	CO2	7	1		
5	CO2	7	1		
6	CO2	3	1		
7	CO2	3	1		
8	CO2	7	1		
9	CO3	7	1		
10	CO3	7	1		
'			Part- B (4 x 4= 16 Marl	KS)	
11	CO2	3	4		
12	CO2	3	4		
13	CO2	3	4		
14	CO2	3	4		
15	CO3	3	4		
16	CO3	3	4		
l]	Part – C (2 X 12 = 24 marl	ks)	
17	CO2	3	12		
18	CO2	3	12		
19	CO3	7	12		
20	CO2	3	12		

CO	Maximum	Marks
2	59	
3	23	
Total	82	

PO	Maximum	Marks
3	64	
7	18	
Total	82	