SRM Institute of Science and Technology
College of Engineering and Technology

DEPARTMENT OF ECE

SRM Nagar, Kattankulathur – 603203, Chengalpattu District, Tamilnadu

Academic Year: 2022-23 (EVEN)

Batch 2
SET B

Test: CLAT-2 **Date: 05.04.2023**
Course Code & Title:18ECC303J & COMPUTER COMMUNICATION NETWORK **Time: 08:00 to 09:40 AM**
Year & Sem: III & VI **Max. Marks: 50**

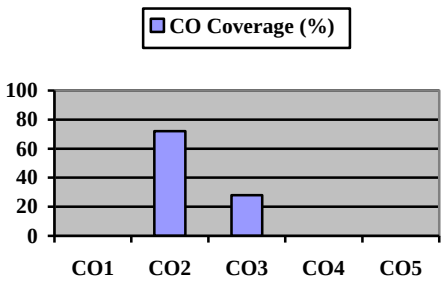
Course Articulation Matrix:

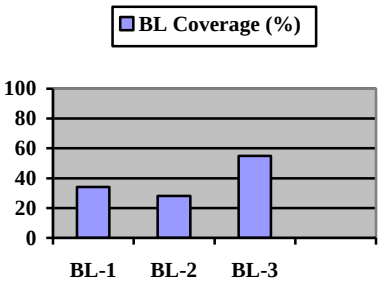
	18ECC303J - Computer Communication Networks	**Program Outcomes (POs)**														
CO	**Course Outcomes (COs)**	**Graduate Attributes**												**PSO**		
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**1**	**2**	**3**
1	Express the basic services and concepts related to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

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

	a. WiFi b. GSM c. Ethernet LAN d. Bluetooth				
7	Which one is not a HDLC frame? a. I-Frames b. H-Frames c. S-Frames d. U-Frames	1	1	2	3
8	_____ does not actually connect two LANS, it connects two segments of the same LAN a. Gateways b. Switches c. Repeaters d. Routers	1	1	2	7
9	Change the IP addresses (10000001 00001011 00001011 11101111) from binary notation to hexadecimal notation. a. 0X810B0BEF or $810B0BEF_{16}$ b. 0XC10B0BFF or $B10B0BEF_{16}$ c. 0XB10B0BEF or $810B0BFF_{16}$ d. 0X71BB0BEF or $810B0BBF_{16}$	1	3	3	7
10	Find the class of the address: 193.14.56.22 a. Class A b. Class B c. Class C d. Class D	1	1	3	7
	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)?	4	3	2	3
13	Discuss different types of modes in HDLC?	4	1	2	3
14	Draw Supervisory frame (S- Frame) diagram and write its different types?	4	1	2	3
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?	4	3	3	3
16	What is packetizing? Why does network layer protocol provide this service to the transport layer?	4	2	3	3
	PART – C (2 X 12 = 12 Marks) **Answer Any Two Questions**				
17	a. What are the persistence methods in CSMA? Explain all in detail with flow diagram. b. Explain in detail about CSMA/CD protocol.	6 + 6	1	2	3
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	12	3	2	3
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: 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	6 + 6	3	3	7
20	In Go-back N protocol, why the size of the sender window must be less than 2^m and explain with neat diagram.	12	3	2	3

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





Approved by the Course Coordinator

Name of the Student: **Register No.:**

Part- A (10 x 1= 10 Marks)					
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 Marks)					
11	CO2	3	4		
12	CO2	3	4		
13	CO2	3	4		
14	CO2	3	4		
15	CO3	3	4		
16	CO3	3	4		
Part – C (2 X 12 = 24 marks)					
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	

Signature of the Question paper setter **Academic Advisor**