CMR TECHNICAL CAMPUS

UGC AUTONOMOUS

B. Tech. V Semester Regular End Examinations, Dec-2022

Computer Networks Common to CSE, IT, CSM & CSD

Time: 3 Hours

Max. Marks: 70

5

CO3

L2

Note

- i. This Question paper contains Part- A and Part- B.
- ii. All the Questions in Part A are to be answered compulsorily.

Difference between Broadcast & Multicast routing

iii. All Questions from Part B are to be answered with internal choice among them.

PART-A

			$10 \times 02 = 20 \text{ Marks}$		S
		•	Marks	CO	BL
1.	a b	Define computer network. What are its advantages? Write various services provided by session layer of OSI model.	2 2	CO1 CO1	L1 L1
	c d	Classify various Data Link Layer Services. Define Bit stuffing.	2 2	CO2 CO2	L2 L1
	e f	What is Congestion control. Write are the different parameters for measuring quality of service?	2 2	CO3 CO3	L1 L1
	g h	Define IP address and port number. What are the fields that are present in the UDP header?	2 2	CO4 CO4	L1 L1
	i j	List the protocols used in Application Layer. What is POP in an email system?	2 2	CO5 CO5	L1 L1
		PART- B			
			5 X 10 = 50 Marks		
		•	Marks	CO	BL
2.		Explain in detail about TCP/IP Protocol suite with neat diagram.	10	CO1	L2
3	a	OR Discuss in detail about Fiber optics guided media for transmission.	5	CO1	L3
	b	Write short notes on Radio Transmission.	5	CO1	L2
4	a	Given the generator polynomial x^3+1 and data polynomial x^7+1 . Test the error if any using CRC method.	5	CO2	L5
	Ъ	Describe the design procedure for Stop-and-Wait protocol. OR	5	CO2	L2
5	a b	Explain in detail Go Back N sliding window protocols. Discuss in detail about slotted ALOHA.	5 5	CO2 CO2	L2 L3
6	a b	Illustrate Shortest Path Algorithm with an example. Difference between Broadcast & Multicast routing	5	CO3	L2

Subject Code: 20CS502PC	SET-I	HT NO:
algorithms.		

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7	а	Describe about and I am			
•	b	Describe about open loop in congestion control Algorithm. Explain Flooding technique.	5 5	CO3 CO3	
8	a	Explain the services provided by transport layer to upper layers.	5	CO4	L2
	Ъ	With the help of a diagram explain the IPv4 header format.	5	CO4	L2
9		OR With the help of diagrams, explain the three-way handshake methods of TCP connection establishment and release.	10	CO4	L3
10	a b	Discuss the working principle behind DNS? Summarize the request message format in HTTP.	5	CO5	L2
11	a	What are the functions of user agent, message transfer agent	5	CO5	L2
	Ъ	and message access agent in e-mail system	5	CO5	L2
	-	Explain SNMP Protocol with a neat diagram.	5	CO5	L2

: Course Outcomes \mathbf{CO}

: Bloom's Taxonomy Levels L 1: Remembering
L 3: Applying
L 5: Evaluating BL

L 2: Understanding L 4: Analysing L 6: Creating

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B. Tech.V Semester Regular Supply End Examinations, January-2024 Computer Networks

Common to AIML, CSG, CSE, IT, CSM & CSD

Time: 3 Hours

Max. Marks: 70

Note

- i. This Question paper contains Part- A and Part- B.
- ii. All the Questions in Part A are to be answered compulsorily.
- iii. All Questions from Part B are to be answered with internal choice among them.

PART-A

 $10 \times 02 = 20 \text{ Marks}$

			Marks	CO	BL
1.	a b	Explain functionalities of Data link layer? Define Internet and ARPANET?	2 2	CO1 CO1	L2 L1
	c d	What is Piggy Backing? Classify error detection and correction methods?	2 2	CO2 CO2	L1 L4
	e f	What are the advantages of Adaptive Routing Algorithms? What is Broadcasting algorithm?	2 2	CO3	L1 L1
	g h	Explain the functionalities of Transport layer? Define Segmentation?	2 2	CO4 CO4	L2 L1
	i j	List any two services of Application Layer? Illustrate HTTP	2 2	CO5 CO5	L1 L2
	i j	. 19			

PART-B

 $5 \times 10 = 50 \text{ Marks}$

			Marks	CO	BL
2.	a b	With a neat diagram explain the TCP/IP model in detail? Compare Twisted pair and Coaxial Cable?	5 5	CO1 CO1	L2 L4
3	a	OR With a neat diagram explain the OSI reference model in detail?	5	CO1	L2
	b	Illustrate different types of Network Topologies?	5	CO1	L2
4	a b	Explain about different types MAC Protocols? Explain about Selective Repeat ARQ? OR	5 5	CO2 CO2	L2 L2
5	a	With an example explain the sliding window Flow control mechanism.	5	CO2	L2
	b	Explain about CSMA/CD protocols in detail with neat diagrams?	5	CO2	L2

Subject (Code	e: 20CS502PC	SET-II	HT NO:	7 F	2	
6	a	Demonstrate Distance V example?	tance Vector routing algorithm with Suitable		5	CO3	L2
	b		tions of ARP an RARP with examples. OR			CO3	ITS C
7	a	Illustrate in detail about field of IPv4 packet with	l about IPv4 Packet format? Explain each			CO3	L2
	b	Explain in brief about M		ithm?	5	CO3	L2
8	a	Explain in detail about c	rash recovery in trans	sport laver?	5	CO4	L2
	b	Discover what are the se the Upper layer?			5	CO4	L4
			OR				
9	a	Explain in detail User da	atagram Protocol?		5	CO4	L2
	b	Conclude in brief about connection release?	TCP connection estal	olishment and	5	CO4	L5
10	a	Explain in brief about Sl	VMD2		5	CO5	L2
10	b			ding and	5	CO5	L2
	U	Describe with detailed explanation about sending and receiving e-mail. Justify Case study how the tool is used for providing Communication?					
11	OR 11 a Illustrate Streaming Video and Audio?				5	CO5	L2
11	b	Explain in detail WWW			5	CO5	L2
co)	: Course Outcomes					
BL		: Bloom's Taxonomy Levels	L 1 : Remembering	, L 2 : U	nderstand	ing	
			L 3 : Applying	L 4 : A	nalysing		

L 6 : Creating

L 5 : Evaluating