20CS502PC	SET-I	HT NO:			7	R					

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**

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.

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PART-A

10 X 02 = 20 Marks

			Marks	CO	BL
1.	a	Define computer network. What are its advantages?	2	CO1	L1
	b	Write various services provided by session layer of OSI model.	2	CO1	L1
	c	Classify various Data Link Layer Services.	2	CO2	L2
	d	Define Bit stuffing.	2	CO2	L1
	e	What is Congestion control.	2	CO3	L1
	f	Write are the different parameters for measuring quality of service?	2	CO3	L1
	g	Define IP address and port number.	2	CO4	L1
	h	What are the fields that are present in the UDP header?	2	CO4	L1
	i	List the protocols used in Application Layer.	2	CO5	L1
	j	What is POP in an email system?	2	CO5	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
		OR			
3	a	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
	b	Describe the design procedure for Stop-and-Wait protocol.	5	CO2	L2
		OR			
5	a	Explain in detail Go Back N sliding window protocols.	5	CO2	L2
	b	Discuss in detail about slotted ALOHA.	5	CO2	L3
6	a	Illustrate Shortest Path Algorithm with an example.	5	CO3	L2
	b	Difference between Broadcast & Multicast routing	5	CO3	L2

algorithms.

OR

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

CO : Course Outcomes

BL : Bloom's Taxonomy Levels **L 1: Remembering** **L 2: Understanding** **L 3: Applying** **L 4: Analysing** **L 5: Evaluating** **L 6: Creating**

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Subject Code: 20CS502PC | SET-I | HT NO: 207R1A0669

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PART-A

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			Marks	CO	BL
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	b	Write various services provided by session layer of OSI model.	2	CO1	L1
	c	Classify various Data Link Layer Services.	2	CO2	L2
	d	Define Bit stuffing.	2	CO2	L1
	e	What is Congestion control.	2	CO3	L1
	f	Write are the different parameters for measuring quality of service?	2	CO3	L1
	g	Define IP address and port number.	2	CO4	L1
	h	What are the fields that are present in the UDP header?	2	CO4	L1
	i	List the protocols used in Application Layer.	2	CO5	L1
	j	What is POP in an email system?	2	CO5	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
		OR			
3	a	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^4+1. Test the error if any using CRC method.	5	CO2	L5
	b	Describe the design procedure for Stop-and-Wait protocol.	5	CO2	L2
		OR			
		Explain in detail Go Back N sliding window protocols.	5	CO2	L2
		Explain in detail about Slotted ALOHA.	5	CO2	L3
		Explain Dijkstra's algorithm with an example.	5	CO3	L2
		Explain Distance vector routing & Multicast routing.	5	CO3	

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

CO : Course Outcomes

BL : Bloom's Taxonomy Levels L 1: Remembering L 2: Understanding
L 3: Applying L 4: Analysing
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