Hall Ticket Number :										

R-17

Code: 19DF32T

M.C.A. III Semester Supplementary Examinations July 2021

Computer Networks

Max. Marks: 60 Time: 3 Hours

Answer *all five* units by choosing one question from each unit (5 x 12 = 60 Marks)

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			Marks	CO	Blooms Level
		UNIT–I			
1.	a)	With a neat diagram, explain ISO - OSI reference model.	6M	CO1	L2
	b)	Differentiate between Circuit and Packet Switching.	6M	CO1	L2
		OR			
2.	a)	Explain Synchronous Time Division Multiplexing?	6M	CO1	L2
	b)	How networks are classified? Elaborate the types of networks.	6M	CO1	L2
		UNIT–II			
3.	a)	Describe ALOHA Protocols.	6M	CO2	L2
	b)	What is Cyclic Redundancy Check (CRC)? How CRC helps in dete1cting the errors? Find the CRC for P=110011 and M=11100011?	6M	CO2	L4
		OR			
4.		What is Framing? Explain the significance of framing and categorize various framing techniques implemented in Data Link layer.	12M	CO2	L4
		UNIT–III			
5.	a)	Identify the top 10 principles of the network layer in the internet.	6M	CO3	L2
	b)	Compare Internet Protocols IPV4 and IPV6.	6M	CO3	L4
		OR			
6.	a)	Describe hierarchical routing with an example. Mention its advantages and disadvantages.	6M	CO3	L2
	b)	Explain Tunneling and Fragmentation in internetworking?	6M	CO3	L2
		UNIT–IV			
7.		Discuss about the elements of Transport protocols.	12M	CO4	L2
		OR			
8.	a)	Explain UDP Protocol with UDP Datagram Structure	6M	CO4	L2
	b)	Describe in brief Nagle's Algorithm	6M	CO4	L2
		UNIT–V			
9.		What is DES algorithm? Apply DES algorithm with an example.	12M	CO5	L3
		OR			
10.		Explain the RSA algorithm with a suitable example and discuss its merits.	12M	CO5	L2

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Hall Ticket Number :										

R-19

Code: 19DF31T

M.C.A. III Semester Supplementary Examinations July 2021

Operating Systems

Max. Marks: 60 Time: 3 Hours

Answer *all five* units by choosing one question from each unit (5 x 12 = 60 Marks)

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			Marks	CO	Blooms Level
		UNIT–I			
1.		List and explain the service provided by OS for the user and efficient operating system.	12M	CO1	L1
		OR			
2.		Explain the following types of OS a) real time b) distributed system	12M	CO2	L2
		UNIT–II			
3.	a)	Show how semaphore provides solution to reader write problem	6M	CO3	L2
	b)	Explain field of process control back	6M	CO2	L1
		OR			
4.	a)	Explain long term and short term scheduling	5M	CO1	L2
	b)	Define process state, write a neat sketch, and explain the fundamental state transition of processes.	7M	CO2	L2
		UNIT–III			
5.	a)	Explain dead lock detection algorithm.	6M	CO2	L1
	b)	Briefly describe dead lock handling approaches	6M	CO2	L1
		OR			
6.	a)	What is dead lock? What are necessary conditions an operating system must satisfy for a dead lock to occur?	6M	CO3	L4
	b)	How can dead lock be prevent? Describe them.	6M	CO3	L2
		UNIT–IV			
7.	a)	Compare contiguous and noncontiguous memory allocation	6M	CO3	L3
	b)	What is paging? Explain paging hardware with translation look –aside buffer.	6M	CO2	L2
		OR			
8.	a)	Explain demand loading of a page with the help of figure.	6M	CO2	L2
	b)	Explain with a neat diagram tree structure directory.	6M	CO2	L1
		UNIT–V			
9.		Explain in detail about access matrix in system protection.	12M	CO5	L2
		OR			
10.		Explain in detail system and network threats	12M	CO2	L2

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