USN : 2GT20IS011 Course Code : 18CS51/18IS51

Fifth Semester B.E. Semester End Examination, JANUARY_MARCH_2023

COMPUTER NETWORKS

Time: 3 hrs. **Max. Marks :100**

Instructions :1. Answer any FIVE full Question selecting at least ONE Question from Each Unit.

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MODULE 1				
1a. Define the term protocol. Discuss the internet protocol stack with a neat diagram.	[2]	[1]	[1]	[10]
1b. Provide a nuts and bolts view and service view of the internet with neat diagrams.	[2]	[1]	[1]	[10]
OR				
2a. Discuss digital subscriber line internet access with a neat diagram.	[2]	[1]	[1]	[10]
2b. With the help of neat diagrams explain the two Key Network Core functions and the concept of Circuit switching.	[2]	[1]	[1]	[10]
MODULE 2				
3a. what is web caching? Explain with a diagram clients requesting objects through a web cache along with its advantages	[2]	[2]	[1]	[10]
3b. Demonstrate the File Transfer Protocol with a neat diagram along with the commands and response messages	[2]	[2]	[1]	[10]
OR				
4a. Illustrate the basic operation of SMTP for the scenario where Alice sends a message to Bob with the help of a neat diagram. Write the sequence of commands issued between user agent and mail server by POP3 protocol	[2]	[2]	[1]	[10]
4b. Illustrate the working of p2p architecture for file distribution application (Bit Torrent)	[3]	[2]	[3]	[10]
MODULE 3				
5a. Discuss TCP segment structure with neat diagram with a brief description of each field.	[2]	[3]	[1]	[10]
5b. Discuss Go Back N protocol with neat diagram.	[2]	[3]	[1]	[10]
OR				
6a. Discuss UDP segment structure with neat diagram. What are the reasons that make many applications well suited for UDP?	[2]	[3]	[1]	[10]
6b. Explain Selective Repeat protocol with neat diagram.	[2]	[3]	[1]	[10]
MODULE 4				
7a. Explain with a neat diagram a high-level view of a generic router architecture	[2]	[4]	[1]	[10]
7b. Differentiate between virtual circuit networks and datagram networks with a neat diagram	[2]	[4]	[3]	[10]
OR				
8a. Explain the IPV6 datagram format	[2]	[4]	[3]	[10]
8b. Explain with a neat diagram switching techniques of a router	[1]	[4]	[1]	[10]
MODULE 5				
9a. Differentiate between TDMA and FDMA with neat diagrams.	[4]	[5]	[1]	[10]
9b. Discuss Data Center Networking with a neat diagram.	[2]	[5]	[1]	[10]
OR				
10a. Discuss the term slotted ALOHA with neat diagram.	[2]	[5]	[1]	[10]
10b. Discuss the concept of MPLS in detail with neat diagrams.	[2]	[5]	[1]	[10]