CBCS SCHEME

USN | | | | | | | | | | |

18EC71

Seventh Semester B.E. Degree Examination, June/July 2023
Computer Networks

Time: 3 hrs. Max. Marks: 100

Note: ***Answer any FIVE full questions, choosing ONE full question from each module.***

Module-1

1 a. Define what is data communication. Write and explain components of a data communication system. **(10 Marks)**

b. Mention and explain different formats used to represent information in data communication. **(10 Marks)**

OR

2 a. Explain different data flow techniques used for communication between two devices. **(10 Marks)**

b. With layer diagram, explain the responsibility of each layer in OSI model. **(10 Marks)**

Module-2

3 a. Explain the need for protocol layering. What are its advantages. **(10 Marks)**

b. With neat sketch, explain encapsulation and decapsulation. **(10 Marks)**

OR

4 a. Define and explain the following terms :
i) Framing
ii) Flow control
iii) Error control. **(09 Marks)**

b. What is piggybacking? Explain concept of piggybacking with neat diagram. **(11 Marks)**

Module-3

5 a. What is Controlled Access? Explain different control access methods. **(10 Marks)**

b. A slotted ALOHA networks transmits 200 bit frame on a shared channel of 200 Kbps. Find the through put, if the system produces
i) 1000 frames per second
ii) 500 frames per second
iii) 250 frames per second. **(10 Marks)**

OR

6 a. Explain different forwarding techniques used to forward the packets from source to destination. **(10 Marks)**

b. What is address space? Explain different classes IP addresses. **(10 Marks)**

Module-4

7	a.	Write a note on security of IPV4 datagrams.	(10 Marks)
	b.	With suitable diagram explain distance vector routing.	(10 Marks)

OR

8	a.	Explain the services provided by transport layer to the upper layer.	(10 Marks)
	b.	Explain stop and wait ARQ protocol.	(10 Marks)

Module-5

9	a.	Explain TCP UDP datagram.	(12 Marks)
	b.	Explain TCP connection establishment and connection termination.	(08 Marks)

OR

10	a.	Explain how application layer protocol interacts with End – user applications.	(10 Marks)
	b.	Explain working of any one applications layer protocol.	(10 Marks)

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