

DATA COMMUNICATION AND COMPUTER NETWORKS

Time : 2:30 Hours]

[Maximum Marks : 50

NOTES:

- i) Attempt **all** questions.
- ii) Students are advised to specially check the Numerical Data of question paper in both versions. If there is any difference in Hindi Translation of any question, the students should answer the question according to the English version.
- iii) Use of Pager and Mobile Phone by the students is not allowed.

Q1) Answer any two of the following :**[2×5=10]**

- a) What do you mean by data communication?
- b) Discuss different mode of data communication.
- c) What do you mean by network topology? Explain ring topology?

Q2) Answer any two of the following:**[2×5=10]**

- a) What is guided and unguided media. Give two examples of each.
- b) Differentiate between Amplitude modulation (A19) and frequency modulation (F19).
- c) Define the Bandwidth and channel capacity of the communication system.

Q3) Answer any two of the following:**[2×5=10]**

- a) Explain Frequency Division Multiplexing (FDM) and Code Division Multiple Access (CDMA).
- b) Discuss LAN, MAN and WAN.
- c) What do you mean by switching techniques Explain in detail.

Q4) Answer any two of the following:**[2×5=10]**

- a) Write the functions of various layers of TCP/IP model.
- b) Discuss different IP Address classes with their Net-id and Host-id.
- c) Explain the concept of subnetting in detail.

Q5) Answer any two of the following :**[2×5=10]**

- a) Write the functions of Repeater, Modem and Gateway.
- b) Explain about following trouble shooting tools
 - i) PING
 - ii) IPCONFIG
 - iii) IFCONFIG
- c) Write short note on wireless network.