

M.C.A. Second Semester (First Year) (CGS)
15513 : Data Communication : 2 MCA 4 / 2 CS 4

P. Pages : 2

Time : Three Hours

**AU - 3156**

Max. Marks : 80

- Notes :
1. Assume suitable data wherever necessary.
 2. Illustrate your answer necessary with the help of neat sketches.
 3. Use of pen Blue/Black ink/refill only for writing the answer book.

1. a) Draw and explain the function of PBX. 8
- b) What are the steps needed to send a fax? explain. 6

OR

2. a) Describe the interactive voice response system. 6
- b) Define : Data communication. Explain the basic components of data communication network with the help of block diagram. 8
3. a) Explain the various types of network architecture. 8
- b) What is converter? Explain it in detail. 6

OR

4. a) What are the advantages and disadvantages of Host-base network versus client base network. 8
- b) What is multiplexing? Explain its purpose. 6
5. a) Describe various standards for modem. 6
- b) Describe the data transmission modes in detail. 7

OR

6. a) What is PCM? Explain. 7
- b) What is modulation? Explain the types of modulation. 6
7. a) Draw the architecture of ISO-OSI model for network communication. Describe the function of each layer. 7
- b) What is forward error correction? Explain the Hamming code method for error correction. 6

OR

8. a) What is polling? Explain the types of polling? 7
b) What is Controlled Access? 6
9. a) What is routing? Describe centralized and decentralized routing. 7
b) Define : Topology. Explain various network topologies. 6

OR

10. a) Distinguish between Static & Dynamic routing. 6
b) Describe the working of OSPF protocol for routing. 7
11. a) What is LAN? Describe various components of a LAN. 7
b) Explain. 6
i) Arcnet
ii) AppleTalk.

OR

12. a) What are the various ways to improve the performance of LAN? 7
b) What are NICs? State their role in LAN. 6
