

B.Sc. (Information Technology)-III Fifth Semester
5BIT3 - Data Communication and Cloud Computing Paper - III

P. Pages : 2

Time : Three Hours



GUG/W/18/1445

Max. Marks : 80

- Notes :
1. All questions are compulsory and carry equal marks.
 2. Draw neat and labelled diagram and use supporting data wherever necessary.
 3. Avoid vague answers and write specific points/answers related to questions.

1. Either:-

- a) What is encoding? Explain in brief about analog and digital data transmission. **8**
- b) Explain pulse code modulation technique for encoding analog data on digital signal with suitable example. **8**

OR

- c) What is multiplexing? Explain the synchronous time division multiplexing. **8**
- d) Explain Data Link control protocols in detail. **8**

2. Either:-

- a) What is network? Explain the packet switching with suitable diagram. **8**
- b) Explain the following **8**
 - 1) LAN
 - 2) MAN

OR

- c) What are the principal of packet switching? Write in detail about datagram. **8**
- d) Define Topology? Explain the different types of topologies in network. **8**

3. Either:-

- a) Explain OSI model in detail. **8**
- b) Explain the following **8**
 - i) Bridges
 - ii) Routing with Bridge

OR

- c) What is TCP/IP protocols Architecture? Explain its operation in detail. **8**
- d) What is Internetworking? Explain connectionless internetworking protocol standards. **8**

4. Either:-

- a) What is cloud computing? Explain the different development models of the cloud. **8**
- b) Explain the hardware and infrastructure for cloud in detail. **8**

OR

- c) Explain services provided by cloud computing in detail. **8**
- d) Explain the applications, Benefits & limitations of cloud computing. **8**

5. Solve all the questions.

- a) Differentiate between Asynchronous and synchronous transmission. **4**
- b) Explain in short about X.25. **4**
- c) Explain the system Network Architecture (SNA) in detail. **4**
- d) Explain the security in cloud computing. **4**
