

B.Sc.- III (Information Technology) (CBCS Pattern) Semester-VI  
**002 / UBITT601.2 - Elective-II Paper-I - Data Communication and Cloud Computing**

P. Pages : 2

Time : Three Hours



**GUG/S/25/13313**

Max. Marks : 40

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- Notes :
1. All questions are compulsory and carry equal marks.
  2. Draw neat labelled diagram wherever necessary.
  3. Avoid vague answers and write relevant answer and specific to questions.

**Either :**

1. a) Write a detail note on simplex and full duplex mode. 4
- b) What do you mean by Data link control protocols? Explain. 4

**OR**

- c) Write a note on: 4
  - i) Digital signal
  - ii) Analog Signal.
- d) Describe the process of Asynchronous and synchronous data transmission. 4

**Either :**

2. a) Define Network topology. Explain any two types network topology. 4
- b) Give the difference between LAN and MAN technology. 4

**OR**

- c) Explain the process of single node network in detail. 4
- d) Write a note on Virtual circuit and Datagram. 4

**Either :**

3. a) Describe OSI model in detail with diagram. 4
- b) What do you mean by connectionless internetworking? Explain. 4

**OR**

- c) Draw and explain system network architecture. 4
- d) Write a detail note on TCP/IP protocol. 4

**Either :**

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|-----------|----|---|----------|
| <b>4.</b> | a) | Enlist the benefits and limitations of cloud computing. | <b>4</b> |
|           | b) | Describe various cloud computing services.              | <b>4</b> |

**OR**

- |           |    |  |          |
|-----------|----|--|----------|
|           | c) | How does Google's cloud computing platform work?                             | <b>4</b> |
|           | d) | Discuss the security measures implemented in cloud computing infrastructure. | <b>4</b> |
| <b>5.</b> |    | Solve all the question.  |          |
|           | a) | Write a note on error detection techniques.                                  | <b>2</b> |
|           | b) | Explain the concept of Signaling.  | <b>2</b> |
|           | c) | Describe the principles of internetworking.                                  | <b>2</b> |
|           | d) | What are the different types of clients in cloud computing.                  | <b>2</b> |

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