

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

P. Pages : 2

Time : Three Hours



**GUG/S/23/13313**

Max. Marks : 40

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

**Either:**

1. a) Differentiate between Analog and Digital transmission. 4
- b) Explain transmission impairments in details. 4

**OR**

- c) Explain the following- 4
  - i) Frequency and period
  - ii) Peak amplitude
- d) Write a note on Data Link Control. 4

**Either:**

2. a) Define Network communication Differentiate between packet switching and circuit switching. 4
- b) Explain the following- 4
  - i) Virtual circuit
  - ii) Datagram

**OR**

- c) Explain the purpose of X.25 protocol in detail. 4
- d) Differentiate between Ring and star topology. 4

**Either:**

3. a) Explain the TCP/IP protocol architecture? Explain its operation in detail. 4
- b) Explain OSI model in detail. 4

**OR**

- c) Explain the concept of routing with Bridge and also explain Bridge in detail. 4
- d) Differentiate between connectionless and connection oriented internetworking. 4

**Either:**

4. a) Explain architecture of cloud computing in detail. 4  
b) Explain cloud computing services in detail. 4

**OR**

- c) Explain Benefits and limitations of cloud computing. 4  
d) Explain different challenges face by cloud computing. 4
5. Solve **all** the questions.
- a) Explain error Detection Techniques in brief. 2  
b) Explain in brief about traffic control. 2  
c) Explain the concept of Internetworking. 2  
d) Explain the hybrid cloud in brief. 2

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