

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

P. Pages : 2

Time : Three Hours



GUG/W/23/13313

Max. Marks : 40

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

**Either:**

1. a) Define transmission. Explain the different data transmission modes. **4**  
b) Explain the following. **4**
  - i) Co- axial cable.
  - ii) Fiber- optic cable.

**OR**

- c) Explain the following. **4**
  - i) Flow control.
  - ii) Frros control.
- d) Differentiate between synchronous and asynchronous transmission. **4**

**Either:**

2. a) What are the different switching methods used in communication. **4**  
b) Explain the purpose of X. 25 protocol in detail. **4**

**OR**

- c) Define Topology. Explain ring topology and also mention advantage and disadvantage of ring topology. **4**
- d) Explain medium access control for LAN & MAN. **4**

**Either:**

3. a) What is protocol? Explain important characteristics of a protocol. **4**  
b) Explain OSI layer model in detail. **4**

**OR**

- c) Explain system network architecture in detail. **4**
- d) Explain connection oriented internetworking potential in detail. **4**

**Either:**

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

**OR**

- c) Explain different stake holders of cloud market in detail. 4  
d) Explain the following. 4  
i) Cloud security.  
ii) Cloud services.
5. Solve all the questions.
- a) Explain multiplexing in brief. 2  
b) Explain the Bus topology in brief. 2  
c) Explain the concept of routing with bridges. 2  
d) Define SAAS and PAAS in detail. 2

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