

**BACHELOR OF SCIENCE (COMPUTER SCIENCE) (CBCS - 2016 COURSE)**  
**T.Y.B.Sc.(Computer Science) Sem-V : WINTER- 2022**  
**SUBJECT : DATA COMMUNICATION & NETWORKING-I**

Day : Monday

Time : 02:00 PM-05:00 PM

Date : 19-12-2022

**W-14912-2022**

Max. Marks : 60

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**N.B.:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the **RIGHT** indicate full marks.
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- Q.1** Answer **ANY TWO** of the following: [12]
- a) Explain Base Band and Broad Band Transmission.
  - b) Differentiate between LAN, WAN, MAN.
  - c) With neat diagram explain working of Router and Gateway.
- Q.2** Answer **ANY TWO** of the following: [12]
- a) Draw neat labelled diagram and explain Co-axial Cable and Fiber Optic Cables.
  - b) Illustrate the working of Storage Area Networking.
  - c) Differentiate between 10/100Mbps and Gigabit Ethernet.
- Q.3** Answer **ANY TWO** of the following: [12]
- a) Elaborate working of Network Interface Card.
  - b) Illustrate -FDDI and Broad Band Technologies.
  - c) Differentiate between Connection-Oriented and Connectionless Services.
- Q.4** Answer **ANY THREE** of the following: [12]
- a) Explain with neat diagram OSI Network Reference Model.
  - b) Illustrate terms -Twisted Pair Cabling, UTP.
  - c) Illustrate Hybrid Network with suitable diagram.
  - d) Draw and explain the working of Telephone Network.
- Q.5** Answer **ANY FOUR** of the following: [12]
- a) Elaborate the role of Repeater and Bridge in Networking.
  - b) Explain any 2 network topologies with suitable diagrams.
  - c) What is Point to Point Communication ? Explain with diagram.
  - d) What is the Role of Device Driver Software? Explain.
  - e) Explain different transmission modes.
  - f) Define - computer network and explain need of networking.

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