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| **DIT UNIVERSITY DEHRADUN**   |  |  | | --- | --- | | **Diploma (CSE)** | **(Regular/Back) MID TERM EXAM, ODD SEM 2023-24 (SEM V)** | | | | | | | | | | | | | |
| **Roll No.** |  |  |  |  |  |  |  |  |  |  |  |  |
| **Subject Name: Computer Networks** | | | | | | | | | | | | |

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| **Time: 2 Hours** | **Total Marks: 50** |
| **Note: All questions are compulsory. No student is allowed to leave the examination hall before the completion of the exam.**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**   |  |  |  | | --- | --- | --- | | **Q.1)** | **Attempt all Parts :** | | |  | **(a)** | **Explain the following terms:**   1. **End Devices** 2. **Server** | |  | **(b)** | **Distinguish between LAN, MAN and MAN?** | |  | **(c)** | **What is the difference between logical address, and a physical address?** | |  | **(d)** | **Elaborate the Data Transmission Modes in a network?** | |  |  | **[4 x 2.5= 10]** | |  | | | | **Q.2)** | **Attempt all Parts :** | | |  | **(a)** | **What do you mean by client server architecture? Discuss its advantages and disadvantages.** | |  | **(b)** | **What are advantages of switch over hub?** | |  | **(c)** | **Compare datagram approach with virtual Circuit Approach.** | |  | **(d)** | **Assume twenty devices are arranged in a mesh topology? How many cables are needed?** | |  |  | **[4 x 2.5= 10]** | |  | | | | **Q.3)** | **Attempt any Two Parts :** | | |  | **(a)** | **Differentiate between circuit switching and packet switching with suitable example.** | |  | **(b)** | **Define topology and explain the advantages and disadvantages of star and ring topology.** | |  | **(c)** | **Explain the concept of Repeater. Also mention the different types of repeaters with example.** | |  |  | **[2 x 5= 10]** | |  | | | | **Q.4)** | **Attempt any Two Parts :** | | |  | **(a)** | **Demonstrate the OSI model and explain the functions of different layers.** | |  | **(b)** | **Mention the different services provided by the data link layer.** | |  | **(c)** | **Explain error detection in computer networks. Also explain it’s type.** | |  |  | **[2 x 5= 10]** | |  | | | | **Q.5)** | **Attempt any Two Parts :** | | |  | **(a)** | **Explain in detail about the concept of TCP/IP model with Example.** | |  | **(b)** | **Give a detailed introduction of RJ-45 and RJ-11 connectors. Also mention the real time application of both the connectors.** | |  | **(c)** | **What do you understand by multiplexing in computer networks, Define its Types.** | |  |  | **[2 x 5= 10]** | | **-----END OF PAPER ----** | | | | |