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| animatedLOGO | **Assignment No. 01  Semester: Fall 2021**  **CS601: Data Communication** | | **Total Marks: 20**  **Due Date: 9th Dec 2021** |
| **Instructions:**  Please read the following instructions carefully before submitting assignment:  You need to use MS word document to prepare and submit the assignment on VU-LMS.  It should be clear that your assignment will not get any credit if:   * The assignment is submitted after due date. * The assignment is not in the required format (doc or docx). * The submitted assignment does not open or file is corrupt. * Assignment is copied (partial or full) from any source (websites, forums, students, etc).   **Objectives:**  To enhance the learning capabilities of the students about:   * Transmission Modes * TCP/IP Layers * Network Topologies * Types of Computer Networks | | | |
| **Assignment** | |  | |

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| **Question No. 1**  **Scenario**  “Global Consultants” is a consultancy company in Lahore. A couple of days ago, they have decided to open another office in Islamabad. In the new office, they want to establish a computer network for different departments. Following are the department details:   1. In the “Marketing department” there will be 9 computers that are interconnected with each other to provide efficient communication among them. 2. In the “Admin department” there will be 5 computers that are connected via a central hub.   At the end of the day, the admin department of the Islamabad office will pass all the data to a secure main server in Lahore.  After carefully reading the above scenario, write down the answer of each of the questions given in the following table:   |  |  | | --- | --- | | **Questions:** | **Answer:** | | Identify the topology that will be used in the “Admin Department”. |  | | Identify the topology that will be used in the “Marketing department” department. |  | | Number of links that will be required for the identified topology of “Marketing department”? |  | | Which type of computer network (LAN or WAN) will be designed within the “Admin department”? |  | | Number of links that will be required for the identified topology of “Admin Department”? |  | | Which TCP/IP layer will be responsible for passing the data to the main server in Lahore? |  |   **Question No. 2**  Following table contains some communication scenarios. You are required to mention the suitable Transmission mode against each scenario.   |  |  | | --- | --- | | **Communication Scenarios** | **Transmission Mode** | | Fire Alarm system. |  | | Two traffic wardens talking to each other via walkie-talkie. |  | | Two friends talking on cellular phone |  | | Output on the LED monitor |  |     **Best of Luck…!** |