**VISHWAKARMA INSTITUTE OF TECHNOLOGY**

**Department of Engineering, Sciences and Humanities**

**FY – 2022-2023 -SEM II**

**ES1045: Computer Organization and Architecture**

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**HOME ASSIGNMENT NO 4**

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| **Q. N.** | **CO No** | **BT\* No** | **Description** | **Max marks** |
| 1 | CO3 | 2 | Draw and explain Single Bus CPU organization in detail. | **8** |
| 2 | CO3 | 3 | Write sequence and control signals for an execution of an instruction Add (R3), R1. | **10** |
| 3 | CO3 | 2 | Explain the followings   1. Register transfers 2. Fetching a word from memory 3. Storing a word from memory | **15** |
| 4 | CO3 | 2 | Write short Note on   1. Hardwired control organization. 2. Micro programmed control unit. | **8** |
| 5 | CO4 | 2 | Explain in detail I/O functions and I/O module structure in detail. |  |
| 6 | CO4 | 2 | Write short Note on   1. Programmed I/O 2. Interrupt Driven I/O 3. DMA | **12** |

**Important Note**: Last date of assignment submission is 3rd May 2023.