

VISHWAKARMA INSTITUTE OF TECHNOLOGY

Department of Engineering, Sciences and Humanities

FY – 2022-2023 -SEM II

ES1045: Computer Organization and Architecture

Div - Ato J Date 28 May 2023

Title: Prepare an Animated video of maximum 10 minutes and upload the same on **class's YouTube channel**. Channel name should be

VIT_DIV X COA Concepts This is a group Activity. **Follow same groups as that of EDAI**

Assessment of the assignment will be peer level like number of views , likes and comments on the video. Co mapping - ALL CO , 20 marks,

Topics are as follows:

1. Complete instruction execution with example. **Add R1,R2**
2. Booth's algorithm implementation with flowchart
3. Division restoring algorithm implementation with flowchart
4. Cache memory
5. Virtual memory
6. Working of Interrupt Driven I/O
7. Working of DMA Transfer
8. Bus Arbitration techniques
9. What is serial and parallel processing and Flynn's classification
10. Use of Address Bus, Data Bus and Control bus in Von Neumann Architecture
11. Basic Instruction execution cycle
12. Use of MAR and MDR in memory access i. Read operation of memory ii Write operation
13. Instruction pipeline implementation and advantages of Instruction pipeline
14. I/O Mapped I/O and Memory mapped I/O
15. Introduction to Raspberi pi
16. Working of Dual core Architecture

- 17. Cache Memory mapping Techniques
- 18. Various types of Memories

Instructions:

1. You can prepare animated video or can make use of PowerPoint presentations for preparing a video.
2. Make sure that all group members are actively involved in this activity.
3. Group leader has to upload video **on class YouTube Channel on or before 10th May 2023**
4. We suggest using a high-quality microphone and record with a minimally-distracting background for the best quality.
5. Assessment of the assignment will be based on contents covered, knowledge gained and peer level review like number of views, likes and comments on the video.
6. No two groups should have the same topics .

Course Incharge: ____Swati Joshi____