

III B. Tech I Semester Supplementary Examinations, Dec/Jan – 2022-23
COMPUTER ARCHITECTURE AND ORGANIZATION

(Electronics and Communication Engineering)

Time: 3 hours

Max. Marks: 70

- Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answer **ALL** the question in **Part-A**
3. Answer any **FOUR** Questions from **Part-B**
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PART -A

(14 Marks)

1. a) Give the functional units of a computer. [2M]
- b) Difference between stack and queue. [2M]
- c) Define instruction. Give its format [2M]
- d) Explain hardware interrupts. [3M]
- e) Difference between PROM and EPROM. [3M]
- f) Define micro program. [2M]

PART -B

(56 Marks)

2. a) Give the classification of Bus structure used in Computer. Explain its interconnectivity with a neat diagram. [7M]
- b) Write the difference between RISC and CISC. [7M]
3. a) Define an addressing mode. Explain about various addressing modes. [10M]
- b) What is a stack frame? Explain a commonly used layout for information in a subroutine stack frame. [4M]
4. a) Explain arithmetic and branch instructions with examples. [7M]
- b) Briefly explain about the input and output instructions along with their formats. [7M]
5. a) Explain about Direct Memory Access in detail. [9M]
- b) What is daisy chaining? Explain with neat sketch. [5M]
6. a) What are the different types of Mapping Techniques used in the Cache Memory? Explain. [7M]
- b) Explain about organization of secondary storage devices. [7M]
7. a) Compare and contrast micro-programmed control with hard wired control. [7M]
- b) Describe the process of execution of a complete instruction with a neat diagram [7M]
