



MARRI LAXMAN REDDY
INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(AN AUTONOMOUS INSTITUTION)

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)

Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(B) of the UGC act, 1956

II B.Tech I Sem Supplementary Examination, July-2022
Computer Organization and Architecture
 (CSE)

Time: 3 Hours.

Max. Marks: 70

Note: 1. Answer any FIVE questions.

2. Each question carries 14 marks and may have a, b as sub questions.

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|---|---|-----|-----|----|
| 1 | a) Compare computer architecture and computer organization | 7M | C01 | U |
| | b) Explain about Arithmetic Micro operations. | 7M | C01 | U |
| 2 | What do you understand by instructions format? Explain the types of instruction format and also differentiate between instruction format and instruction set. | 14M | C01 | An |
| 3 | a) Describe general register organization | 7M | C02 | U |
| | b) Explain Micro program control unit with neat diagram | 7M | C02 | U |
| 4 | Explain data transfer instructions and manipulation instructions | 14M | C02 | U |
| 5 | a) Classify and explain types of data representations in computer. | 7M | C03 | U |
| | b) Explain addition and subtraction in signed 2's complement representation. | 7M | C03 | Ap |
| 6 | a) Explain Booth multiplication algorithm. | 7M | C03 | U |
| | b) Demonstrate decimal arithmetic operations with examples | 7M | C03 | AP |
| 7 | a) Explain memory hierarchy. | 7M | C04 | U |
| | b) Describe various I/O mechanisms? | 7M | C04 | U |
| 8 | a) List out and explain Characteristics of multiprocessors | 7M | C05 | An |
| | b) Write about Interprocessor communication and synchronization | 7M | C05 | U |