

Supplementary Summer Examinations 2024

Course: B. Tech.

Branch: Computer & Allied

Semester : IV

Subject Code & Name: Computer Architecture & Organization (BTCOC304)

Max Marks: 60

Date: 06/07/2024

Duration: 3 Hr.

Instructions to the Students:

1. All Questions are Compulsory.
2. Draw neat diagram wherever necessary.
3. Figures to right indicates full marks
4. Assume suitable data wherever necessary and mention it clearly

(Level/CO) Marks

Q. 1 Solve Any Two of the following.

- | | | |
|--|--------------|----|
| A) State the basic fundamental units of computers and give brief explanation for each with neat diagram. | (Synthesis) | 06 |
| B) Write a short note on i)PC ii)IR iii) MAR iv) MDR | (Remember) | 06 |
| C) Explain in detail Instruction Fetching and Execution | (Understand) | 06 |

Q.2 Solve Any Two of the following.

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|--|--------------|----|
| A) Explain types of Operand and Operations with suitable instruction of assembly language. | (Understand) | 06 |
| B) Describe and list Addressing Modes with examples | (Remember) | 06 |
| C) Explain RISC and CISC architecture. | (Understand) | 06 |

Q. 3 Solve Any Two of the following.

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|---|--------------|----|
| A) Multiply using a sequential circuit for binary multiplication
i) 11 x 7 ii) 7 x 8 | (Synthesis) | 06 |
| B) Write a Booth algorithm for multiplication with a suitable example. | (Understand) | 06 |
| C) Solve the following using Binary division restoring algorithm
i) 8 / 2 ii) 11 / 5 | (Remember) | 06 |

Q.4 Solve Any Two of the following.

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|--|--------------|----|
| A) Explain RAM & DRAM with neat diagram. | (Remember) | 06 |
| B) Write a short note i) Magnetic Disk ii) Magnetic Tape | (Understand) | 06 |
| C) Explain Cache Mapping – Set associative mapping with neat diagram | (Understand) | 06 |

Q. 5 Solve Any Two of the following.

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|---|--------------|----|
| A) Explain Microprogrammed control unit. | (Understand) | 06 |
| B) Write short note on i) I/O channels ii) Direct memory Access (DMA) | (Remember) | 06 |
| C) Explain Micro-instruction Sequencing. | (Understand) | 06 |

*** End ***