

Code No: **R18A0572****MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**

(Autonomous Institution – UGC, Govt. of India)

III B.Tech I Semester Supplementary Examinations, April 2023**Computer Organization & Operating Systems****(ECE)**

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Time: 3 hours**Max. Marks: 70**

Note: This question paper Consists of 5 Sections. Answer **FIVE** Questions, Choosing ONE Question from each SECTION and each Question carries 14 marks.

SECTION-I

- 1 **A** With a neat diagram explain the basic operational concepts of computer? [7M]
 B What is an Addressing mode? List and explain the various addressing modes with an example. [7M]

OR

- 2 **A** Describe about Arithmetic Logic Shift Unit. [7M]
 B Give the major characteristics of RISC and CISC architectures. [7M]

SECTION-II

- 3 **A** Explain the cache memory mapping techniques with relevant diagrams. [10M]
 B Differentiate between SRAM and DRAM. [4M]

OR

- 4 **A** Describe about virtual memories in detail. [7M]
 B Write short note on Hard Wired Control. [7M]

SECTION-III

- 5 **A** What is a priority interrupt? Explain daisy-chaining priority methods with a neat diagram. [7M]
 B Explain about Asynchronous Data Transfer Modes. [7M]

OR

- 6 **A** Describe in detail about input-Output Processor (IOP) organization. [7M]
 B Write a short note on PCI. [7M]

SECTION-IV

- 7 **A** Briefly explain about demand paging. [7M]
 B Write different operating system services and explain. [7M]

OR

- 8 What is Deadlock? Explain Deadlock prevention & Avoidance. [14M]

SECTION-V

- 9 **A** Explain about file system mounting in detail. [7M]
 B Explain about directory structure? [7M]

OR

- 10 **A** Write short note on a)File sharing b)Protection [7M]
 B Illustrate the functions of file and file implementation. [7M]
