

Code No.: EC502PC

R20

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CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
III-B.TECH-I-Semester End Examinations (Supply) - May- 2023
MICROPROCESSORS & MICROCONTROLLERS
(ECE)

[Time: 3 Hours]

[Max. Marks: 70]

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks.

PART-A

(20 Marks)

1. a) What is the importance of pipelining concept in 8086 microprocessor? [2M]
- b) List different types of 8086 hardware interrupts. [2M]
- c) Explain the importance of 8051 Microcontroller over 8086 Microprocessor. [2M]
- d) What is PUSH and POP instructions in 8051? [2M]
- e) Explain the importance of Memory interfacing of 8051. [2M]
- f) Give the serial communication standards. [2M]
- g) List out few comparisons of ARM and Microcontroller. [2M]
- h) Define Pipeline? [2M]
- i) Expand OMPA processor and its memory capacity. [2M]
- j) List out the different applications of OMPA processor. [2M]

PART-B

(50 Marks)

2. Draw the internal architecture of 8086 microprocessor and explain the function of each block in detail. [10M]
- OR**
3. Define Addressing mode? List out different Addressing modes used in 8086 microprocessor. [10M]
 4. Draw the Pin diagram of 8051 Microcontroller and explain each pin in detail. [10M]
- OR**
5. Explain about the Timer Registers of 8051 with its Modes of Operation. [10M]
 6. Explain the instruction set of 8051 Microcontroller. [10M]
- OR**
7. Draw the PIN diagram of RS-232 serial communication scheme and explain importance of each pin. [10M]
 8. Draw the internal architecture of ARM processor and explain function of each block in detail. [10M]
- OR**
9. Mention about the Program status register instructions in ARM processor. [10M]
 10. List out different classifications of OMPA processor and explain its architecture in detail. [10M]
- OR**
11. Explain the architecture and mention different applications of CORTEX processor. [10M]
