

Roll No.

3093

**B. Tech. 4th Semester (ECE)
Examination – May, 2023**

MICROCONTROLLERS

Paper : PCC-ECE-210-G

Time : Three hours]

[Maximum Marks : 75

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all, selecting *one* question from each Unit. Question No. 1 is *compulsory*. All questions carry equal marks.

1. Write short notes on the following 2.5 / 6 = 15
- (a) Micro-computer system
 - (b) Cache memory
 - (c) Pentium pro
 - (d) DMA
 - (e) Interrupt
 - (f) EU unit of 8086

UNIT – I

2. Draw and explain functional block diagram of 8086. 15
3. Describe various Addressing Modes of 8086. 15

UNIT – II

4. (a) Explain various Instructions of 80286. 7
- (b) Draw the block diagram of 80386. 8
5. Draw and explain the functions of 80286 and block diagram of 80286. 15

UNIT – III

6. (a) Explain Enhanced features of Pentium. 8
- (b) Describe few features of Pentium-II 7
7. Compare various Pentium processor in detail. 15

UNIT – IV

8. (a) Explain the functions of PPI chip. 8
- (b) Describe the working of DMA controller. 7
9. (a) Explain the working of Interrupt controller. 8
- (b) Describe programmable Interval timer in detail. 7

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B.Tech. (ECE) 4th Semester (G Scheme)
Examination, July-2022
MICROCONTROLLERS
Paper- PCC-ECE-210-G

Time allowed : 3 hours] [Maximum marks : 75

Note : The students have to attempt five questions in total, first being compulsory and selecting one from each unit.

1. (a) What is the function of ALU in a Microprocessor? 2.5
- (b) Explain the flag register of 8086. 2.5
- (c) Enlist the name of segment registers in a Pentium processor. 2.5
- (d) Discuss briefly MUL and DIV instructions with example. 2.5
- (e) Discuss briefly the BSR mode of Intel 8255. 2.5
- (f) What do you understand by the term Interrupt in microprocessor? 2.5

Unit - I

2. Draw the pin diagram of 8086 Microprocessor and explain the function of each pin. 15
3. Explain in detail the memory segmentation implemented in 8086 Microprocessor. 15