



QP CODE: 24803814



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Reg No : .....

Name : .....

**INTEGRATED MSC DEGREE EXAMINATION, JULY 2024**

**Fourth Semester**

INTEGRATED MSC COMPUTER SCIENCE-ARTIFICIAL INTELLIGENCE AND MACHINE  
LEARNING

**COMPLEMENTARY - IC5A4CM2 - MICROPROCESSORS**

2020 Admission Onwards

F2697F16

Time: 3 Hours

Weightage: 30

**Part A (Short Answer Questions)**

*Answer any **eight** questions.*

*Weight 1 each.*

1. Define Hexadecimal number system
2. What is an assembler?
3. What are the uses of AD15 – AD0 lines?
4. What is PIT 8254?
5. Write a short note on register to register instruction format with example.
6. What are the use of CALL and RET instructions of 8086?
7. Define control register.
8. What are the different task involved in memory interfacing?
9. Write down the addressing modes of 80386.
10. What can you do with a Raspberry Pi?

(8×1=8 weightage)

**Part B (Short Essay/Problems)**

*Answer any **six** questions.*

*Weight 2 each.*

11. What is the overview of microcomputer structure and operations?
12. Explain the bus interface unit and execution unit of 8086 microprocessor.
13. Explain in detail about the interrupts and interrupt service routines of 8086.





14. Draw flowchart and write an assembly language program to subtract two 16 bit numbers.
15. Compare similarities and difference between PUSH/POP and CALL/RET instructions.
16. Differentiate INPUT PORT and OUTPUT PORT.
17. Draw and explain the pin diagram of 8255 Programmable Peripheral Interface.
18. Distinguish between 80286 and 80586 microprocessors.( Any four points)

(6×2=12 weightage)

**Part C (Essay Type Questions)**

*Answer any **two** questions.*

*Weight 5 each.*

19. a) What are the different addressing modes supported by 8086 microprocessor ? Explain each of them with suitable example b) Write an ALP to find the square of a number.
20. Describe how an assembly language program is developed and debugging using program developments tools
21. Explain 8255 Microprocessor Operating Modes.
22. Draw and explain the internal architecture of 80286 processor.

(2×5=10 weightage)

