

G 8489



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Reg. No.....

Name.....

D.D.M.C.A. DEGREE EXAMINATION, MARCH 2026

Fourth Semester

DMCA 402—MICROPROCESSORS

(2016 Admissions—Final Mercy Chance)

Time : Three Hours

Maximum Marks : 75

Part A

*Answer any **ten** questions.*

Each question carries 3 marks.

1. Point out the register organization of 8086 microprocessors.
2. Relate the general bus operations with diagram.
3. What are the special processor activities ?
4. Elaborate the arithmetic and logic instructions with example.
5. Differentiate between the interrupts and interrupt service routines.
6. What is interrupt programming ?
7. Write a note on interrupt I/O.
8. Describe the programmable peripheral interface 8255.
9. What are assembler directives ? Give examples.
10. Identify the serial data I/O of microcontrollers.
11. What are the counters and timers for microcontrollers ? Explain.
12. Define : “LCD”.

(10 × 3 = 30)

Turn over





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Part B

Answer all questions.

Each question carries 9 marks.

13. (a) Illustrate the general architecture of 8086 microprocessors with diagram.

Or

- (b) Draw and explain the minimum mode 8086 system and timings.

14. (a) Compare and construct the shift and rotate instructions with example.

Or

- (b) Elucidate the stack structure of 8086 microprocessors.

15. (a) Determine the system architecture of DMA controller 8257.

Or

- (b) Assess the programmable interrupt controller 8259A with diagram.

16. (a) Evaluate the functions and architecture of 80186 microprocessors.

Or

- (b) Assume the benefits of interrupt cycle of 8086.

17. (a) Demonstrate the memory management in 8051 microcontroller.

Or

- (b) Enumerate the types of instruction set of 8051 microcontroller.

(5 × 9 = 45)

