

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



M.C.A. DEGREE EXAMINATION – COMPUTER APPLICATIONS

SECOND SEMESTER – APRIL 2022

18PCA2MC04 – COMPUTER ARCHITECTURE AND MICROPROCESSOR

Date: 16-06-2022

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 NOON

PART – A

Q. No Answer ALL Questions

(10 x 2 = 20 Marks)

- 1 What is 2's Complement?
- 2 What is Boolean Algebra?
- 3 What is Counter?
- 4 What is Decoder?
- 5 State the term RISC.
- 6 What is indirect addressing modes?
- 7 What is Instruction Format?
- 8 State Microcomputer.
- 9 What is Assembler?
- 10 What is MASM?

PART – B

Answer ALL Questions

(5 x 8 = 40 Marks)

- 11 a) Explain 10's and 9's Complement with example
or
b) State Multiplexer with neat diagrams
- 12 (a) Explain the Adders and Subtractors with diagrams
or
(b) Explain Registers in details.
- 13 a) Explain the Timing And Control detail
or
(b) Describe the Computer Arithmetic in detail
- 14 a) Explain standard program structure in detail
or
b) Explain Microprocessor evolution and types
- 15 (a) Explain Instruction descriptive in detail.
or
(b) Describe the Macros in Micro Processor.

PART – C

Answer any TWO Questions

(2 x 20 = 40 Marks)

- 16 Explain Logic Gates with neat diagram and truth table
- 17 What is Flip Flops and explain RS, JK, D, T Flip Flops
- 18 i) Explain the concept of Addressing Modes
ii) Describe the 8086 bus activities in details.

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