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Total No. of Printed Pages: [01]

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BCA-MCA Dual Degree (Semester – 1st)

COMPUTER ORGANIZATION

Subject Code: BMCAS1103

Paper ID: [19340103]

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(2 marks each)

Q1. Attempt the following:

- a) What is software?
- b) What is input device?
- c) What do you mean by three address instruction?
- d) What do you mean by universal gate?
- e) What is combinational circuit?
- f) What is cache memory?
- g) What is the difference between primary memory and secondary memory?
- h) What is register? What is its use?
- i) What is a truth table?
- j) What is D Flip Flop?

Section – B

(5 marks each)

- Q2. Discuss various computer generations in detail.
- Q3. What is addressing mode? Discuss various types of addressing modes.
- Q4. What is memory? Discuss various types of memory with their hierarchy.
- Q5. What is instruction cycle? Explain instruction cycle with proper example.
- Q6. What is Flip Flop? Explain SR Flip Flop with truth table.

Section – C

(10 marks each)

- Q7. (a) Draw block diagram of computer and explain it.
(b) Briefly explain CPU architecture.
- Q8. (a) What is an adder? How full adder can be implemented using two half adders. Explain using proper diagram.
(b) What is an interrupt? Explain maskable and non- maskable interrupts.
- Q9. Write short note on the following:
 - i) Timing and control in CPU
 - ii) Binary counter
 - iii) Instruction types