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MCA-05

June/December – Examination 2020

Master of Computer Application (Ist Year) Examination

Computer Organization and Architecture

Paper : MCA-05

Time : 2 Hours]

[Maximum Marks : 80

Note :- The question paper is divided into two Sections A and B. Write answers as per the given instructions.

Section-A

8×2=16

(Very Short Answer Type Questions)

Note :- Answer all questions. As per the nature of the question delimit your answer in one word, one sentence or maximum up to **30** words. Each question carries 2 marks.

1. (i) Define Cycle Stealing.
- (ii) What is RAID ?

- (iii) What is Pipelining ?
- (iv) What is Interrupt ?
- (v) Define Flip-Flops.
- (vi) What is RISC ?
- (vii) Define Instruction Cycle.
- (viii) What do you mean by SIMD and MIMD ?

Section-B **4×16=64**

(Short Answer Type Questions)

Note :- Answer any *four* questions. Each answer should not exceed **200** words. Each question carries 16 marks.

- 2. What is the function of Cache Memory ? Explain the term cache hit and cache miss.
- 3. Explain the working of full adder with truth table and logic diagram.
- 4. Explain the working principle of Direct Memory Access (DMA).
- 5. Compare SRAM and DRAM.
- 6. Discuss the instruction execution cycle with interrupt and without interrupt.

- 7. What are the building blocks of Central Processing Unit ?
- 8. What is Pipelining Hazard ? Explain the various types of Hazards.
- 9. Differentiate between Combinational and Sequential Circuit.