

11. Explain the working of 8-to-1 multiplexer with block diagram.
12. What is a Winchester Disk ? Briefly discuss its advantages.
13. Differentiate between RISC and CISC.

MCA-05

December – Examination 2022

MCA Examination

Computer Organization and Architecture

Paper : MCA-05

Time : 3 Hours]

[Maximum Marks : 80

Note :- The question paper is divided into three Sections A, B and C. 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) What is Microprocessor ?

- (ii) What is flip-flop ? Name any *two* types of flip-flop.
- (iii) What is the role of system bus ?
- (iv) List any *four* differences between RAM and ROM.
- (v) What is Paging ?
- (vi) What is Interrupt ?
- (vii) What is the significance of pipeline ?
- (viii) State Moore's Law.

Section-B **4×8=32**

(Short Answer Type Questions)

Note :- Answer any *four* questions. Each answer should not exceed **200** words. Each question carries 8 marks.

- 2. What is the function of cache memory ? Explain the term cache hit and cache miss.
- 3. Explain the working of Half Adder with neat diagrams.

- 4. What is Racing ? What techniques are used to get rid of racing ? Explain.
- 5. Write short note on DMA.
- 6. Describe the functions of the I/O interface units in a computer.
- 7. Describe the building block of Central Processing Unit.
- 8. State and explain the Flynn's classification of microprocessor architecture.
- 9. What is pipeline hazard ? What are the types of pipelines ?

Section-C **2×16=32**

(Long Answer Type Questions)

Note :- Answer any *two* questions. You have to delimit your each answer maximum up to **500** words. Each question carries 16 marks.

- 10. What is the need for Register ? Explain different types of register.