

NOVEMBER/DECEMBER 2019

**BSCA44 — COMPUTER ORGANIZATION
AND ARCHITECTURE**

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define the term – Instruction code.
2. What is Program counter?
3. Define the term –Subroutine.
4. What is Sequencer in address sequencing?
5. Define the term –Addressing mode.
6. What is meant by the Effective address of the operand?
7. Distinguish between Isolated versus Memory –mapped I/O/
8. Define the term –DMA.
9. What is Cache memory?
10. Distinguish between RAM and ROM.



SECTION B — ($5 \times 5 = 25$ marks)

Answer ALL questions.

11. (a) Discuss on any five Memory Reference instructions.

Or

- (b) Explain the Timing and Control functions in Control unit.

12. (a) Describe the Address Sequencing procedure.

Or

- (b) Discuss on Control Memory functions.

13. (a) Explain the general register organization with common ALU and buss system.

Or

- (b) Describe any three Addressing Modes.

14. (a) Discuss on Peripheral Devices.

Or

- (b) Explain the different Modes of Data transfer.

15. (a) Describe the working of Auxiliary Memory.

Or

- (b) Discuss on the functioning of Virtual memory.

SECTION C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Describe the functions of Input-Output and Interrupt.

Discuss on Microinstruction format, Symbolic Microinstructions, Symbolic and Binary Microprograms.

18. Explain the different types of Instruction Formats.

19. Describe the Asynchronous Data Transfer mechanism.

20. Discuss on the functioning of Associative Memory.