D 50578　　　　　　　　(Pages : 2)　　　　　Name......................................

　　　　　　　　　　　　　　　　　　　　　　　Reg. No................................

FIFTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION NOVEMBER 2023

Computer Science

BCS 5B 07—COMPUTER ORGANIZATION AND ARCHITECTURE

(2019 Admission onwards)

Time : Two Hours　　　　　　　　　　　　　　　　　　　Maximum : 60 Marks

Section A (Short Answer Type Questions)

Answer **all** *questions, each correct answer carries a maximum of* 2 *marks.*

Ceiling 20 *marks.*

1. Explain Multiplexer.

2. What is edge triggering ?

3. List out the basic registers of a computer.

4. Define effective address.

5. Explain direct addressing mode.

6. Define stack.

7. Discuss OR gate.

8. Explain full adder.

9. Define associative memory ?

10. Explain simplex data transmission method.

11. What is Direct Memory Access ?

12. List out 4 program control instructions.

Turn over

Section B (Short Essay Type Questions)

Answer **all** *questions, each correct answer carries a maximum of* 5 *marks.*

Ceiling 30 *marks.*

13. Explain typical RAM chip with the help of a block diagram.

14. Explain Status Bits.

15. Explain memory reference instruction with examples.

16. Write short note on shift registers.

17. Discuss asynchronous & synchronous counters.

18. Explain Register stack.

19. Differentiate external and internal interrupts.

Section C (Essay Type questions)

Answer any **one** *question, correct answer carries* 10 *marks.*

20. Explain various Flip Flops with the help of truth tables.

21. Define Cache Memory. Explain different cache memory mapping techniques.

$(1 \times 10 = 10 \text{ marks})$