LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.C.A. DEGREE EXAMINATION – **COMPUTER APPLICATIONS**

SECOND SEMESTER – **APRIL 2023**

CA 2502 – COMPUTER ORGANIZATION AND ARCHITECTURE

Date: 10-05-2023   Dept. No.   Max. : 100 Marks
Time: 09:00 AM - 12:00 NOON

PART – A

Answer ALL the questions   **(10 x 2 =20)**

1. What is meant by digital computer?

2. What is meant by Don't care condition?

3. Define shift register.

4. Define AND gate.

5. Name any two address modes.

6. Define register.

7. Write down the hardware components of basic computer.

8. What are control logic gates?

9. Define control word.

10. What is the use of status bit?

PART – B

Answer ALL the questions   **(5 x 8 = 40)**

11. a) Illustrates Boolean algebra and its basic identities.

(OR)

    b) Describe in detail about Register with parallel load.

12. a) Write a note on multiplexer with example.

(OR)

    b) Discuss in detail about Types of ROMs.

13. a) Explicate the number system with example.

(OR)

    b) Give a detailed account on Instruction cycle.

14. a) Write a note on control of single Flip – Flop.

(OR)

    b) Discuss in detail about Adder and Logic circuit.

15. a) Describe in detail about general register organization.

(OR)

    b) Give a detailed account on RISC Instructions.

Answer any TWO questions (2 x 20 = 40)

16. a) Discuss in detail about different types of Flip – Flops. (10 Marks)

    b) Explain in detail about combinational circuit. (10 Marks)

17. a) Write a detailed note on interrupt cycle. (10 Marks)

    b) Describe in detail about common bus system. (10 Marks)

18. a) Give a detailed account on control logic gates. (10 Marks)

    b) Explain in detail about addressing modes. (10 Marks)

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