LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

SECOND SEMESTER – **APRIL 2016**

CA 2502 / CA 2501 - COMPUTER ORGANIZATION AND ARCHITECTURE

Date: 21-04-2016 Dept. No. Max. : 100 Marks
Time: 01:00-04:00

PART – A

Answer ALL of the following: **(10X2=20)**

1. Draw NOR gate and write its truth table?
2. Define Flip-flop?
3. What is Decoder?
4. What is Multiplexers?
5. What is an Operation code?
6. Define Effective address.
7. Define Control word?
8. What is Interrupt Cycle?
9. What is Program counter?
10. What is Program Status word?

PART – B

Answer All of the following **(5X8=40)**

11. a)Draw Different types of logic gates and write its truth table?

(or)

b)Explain Half and Full adder with diagram?

12. a) Briefly explain about Multiplexers?

(or)

b)Explain Shift Registers with example?

13. a)Discuss on Timing and Control?

(or)

b).Explain Instruction Cycle in detail?

14).a)Explain Control registers and memory?

(or)

b).Explain Register stack with example?

15).a)Explain Various Instruction formats in detail?

(or)

b).Briefly explain Data transfer instructions?

PART- C

Answer any Two of the following **(2X20=40)**

16. a) Explain the different types of Flipflops?

    b) Write short notes on memory unit?

17.a) Discuss Various Memory reference Instructions.

    b) Explain Design of Accumulator logic.

18.a) ExplainProgram Control in detail?

    b) Explain the different types of addressing mode in detail.

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