(Printed Pages 3) Roll No. _____

4138

B.C.A. Examination, 2016

Third Semester

Third Paper

(*Computer Architecture & Assembly Language*)

Time : Three Hours ***Maximum Marks : 75***

Note: Attempt any **five** questions. **All** questions carry equal marks.

1. Explain the basic computer organization and design with a neat diagram. Explain also register organisation in detail. 15

2. Explain the terms given below. 5×3

   (a) Timing and control Instruction cycle

   (b) Input / output and Interrupts

   (c) Memory Interfacing

3. Explain the addressing modes used in basic computer system, and also explain the function of pipelining. 15

4. Discuss ALU structure. Explain Booth's algorithm with suitable example. 15

5. What are the peripheral devices? Explain any one of the peripheral devices used in computer. 15

6. Explain the function of following : 5+5+5

   (a) ALU

   (b) Periority interrupt.

   (c) Serial Communication

7. Draw the block diagram of 8085 microprocessor & explain flag register and address/ data buses used in 8085 microprocessor. 15

8. Write an Assembly language program for transfer a block of data from 2000H→2009H to 3000H to 3009H memory location. 15

9. What do you know about subroutine and macros. Differentiate between them with examples. 15

10. Write short notes on any **three** of following : 5+5+5

    (a) Assembler

    (b) Floating points representation

    (c) Program counter and Stack pointer

    (d) RISC and CISC