A (Printed Pages 4)

(20222) Roll No. .....

BCA-III Sem.

18013 (CV-III)

B.C.A. Examination, Dec.-2021

COMPUTER ARCHITECTURE AND ASSEMBLY LANGUAGE

(BCA-303)

Time : 1½ Hours] *[Maximum Marks : 75*

Note : Attempt questions from **all** sections as per instructions.

Section- A

Note : Attempt any **two** questions. Each question carries 7.5 marks.

2×7.5=15

1. Define the Computer Registers.

2. Differentiate between Micro-instruction and micro program.
3. What is the advantage of using Booth Algorithm?
4. What is cache memory? Describe its operations in brief.
5. Convert the following into reverse polish notation.

   A*B+C

Section - B

Note: Attempt any **one** question. Each question carries 15 marks. 1×15=15

6. Differentiate between direct and indirect addressing with an example.
7. Discuss basic computer organization. How is it different from computer architecture.

8. Explain subroutine in assembly language.

Section - C

Note: Attempt any **two** questions. Each question carries 22.5 marks. $2 \times 22.5 = 45$

9. What is Booth algorithm? Explain it in detail. Multiply 24 and -7 using Booth algorithm.

10. Describe Direct Memory Access (DMA) Explain its functioning of DMA transfer with the help of diagram.

11. What is Priority Interrupt? Explain polling and Daisy chaining Priority.

12. What do you mean by Input-output processor (IOP)? Explain with the help of block diagram.

13. Write short note on:

    (a) RISC/CISC

    (b) Array Processor

    (c) Parallel Processor