

COMPUTER ORGANISATION & ARCHITECTURE (BCA 102)

Duration: 2 Hours

Max. Marks: 50

Instructions:

- *Figures to the right indicate maximum marks.*
- *Start each question on a fresh page*
- *All questions are compulsory*

Q. 1) (X). Define the following: (5)

- A. Memory Buffer Register
- B. Peripheral Device
- C. Random Access Memory
- D. Assembly Language
- E. Hexadecimal Number System

Q.1. (Y). Fill in the Blanks : (5)

- A. MOV is a data transfer instruction in _____ Language.
- B. _____ stores the address of the next instruction to be fetched.
- C. EPROM is electrically _____.
- D. Register _____ is known as Accumulator.
- E. Vacuum Tubes were used in the _____ generation of computers.

P.T.O.

Q.2. Answer the following.

- a. Convert 84 into Binary & Octal. (2)
- b. What were the highlights of first generation of computers? (3)
- c. Explain the function of each step in an instruction cycle. (5)

Q.3. Answer the following.

- a. Perform Binary Subtraction 44-20. (2)
- b. What are the functions of an Input/Output Module? (3)
- c. Explain the working of Cache Memory with the help of a Diagram. (5)

Q.4. Answer the following.

- a. Explain Immediate & Register Addressing Mode. (2)
- b. In the Memory Hierarchy comment on Cost & capacity of registers, Cache & other Memory. (3)
- c. Compare Programmed I/O with Direct Memory Access. (5)

Q.5. Answer the following.

- a. Describe the working of Arithmetic & Logic Unit(ALU). (2)
- b. Write an Assembly Language Program to Exchange two numbers. (3)
- c. Explain the working of a microprogrammed Control Unit with the help of a diagram. (5)

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