

K18U 1938

Reg. No. : Name :

III Semester B.C.A. Degree (CBCSS-Reg/Sup./Imp.) Examination, November 2018 (2014 Admn. Onwards) Core Course 3B06BCA : COMPUTER ORGANISATION

Time : 3 Hours

Max. Marks: 40

SECTION - A

Answer all questions. Half mark each.

- 1. a) A floating point number is said to be normalized if
 - b) Give an example for control flip flop.
 - c) Specify stack operations.
 - d) Operation type instructions do not need an address field in _____ type of computers.
 - e) The number of printable characters in ASCII is
 - f) _____ is defined as the rate at which serial information is transmitted.
 - g) The performance of cache memory is measured in terms of
 - h) Data register is sometimes called

 $(8 \times \frac{1}{2} = 4)$

SECTION - B

Answer any 7 questions. 2 marks each.

- Write the procedure to subtract two signed binary numbers using 2's complement method.
- 3. Give examples for microoperations.
- 4. What is a register transfer language ?
- 5. What is meant by effective address ?
- 6. Give the memory hierarchy in a computer system.

K18U 1938

- 7. What are the different I/O operations?
- 8. What is the difference between multiprocessor and multicomputer ?
- 9. What is dynamic microprogramming ?
 - 10. Specify the differences exist between computer and peripheral.
 - What are the address sequencing capabilities required in a control memory ? (7×2=14)

SECTION - C

Answer any 4 questions. 3 marks each.

- 12. Explain the basic structure of a computer.
- 13. Draw the flowchart of the instruction cycle.
- 14. Discuss about different types of instruction code formats.
- 15. Explain serial arbitration procedure.
- 16. Explain different types of auxiliary memories.
- How does the system handle interrupts ? Explain with the help of a flowchart.

 $(4 \times 3 = 12)$

SECTION - D

Answer any 2 questions. 5 marks each.

- 18. Describe the general register organisation with a diagram.
- 19. Discuss about different addressing modes.
- 20. Explain fixed point and floating point representations.
- 21. Explain the following :
 - a) Daisy-chain priority interrupt
 - b) Parallel priority interrupt.

 $(5 \times 2 = 10)$