K21U 0100

Reg. No. : .....

Name : .....

VI Semester B.Sc. Degree (CBCSS-Reg./Supple./Improv.) Examination, April 2021
(2014 – 2018 Admissions)
CORE COURSE IN COMPUTER SCIENCE
6BI 5CSC : Computer Organization

Time : 3 Hours Max. Marks : 40

SECTION – A

1. **One** word answer. **(8×0.5=4)**
   a) _____ is concerned with the way the hardware components operate and the way they are connected together to form the computer system.
   b) The operations on data stored in register are called _____
   c) An _____ is a group of bits that instruct the computer to perform a specific operation.
   d) The _____ to be the address of the operand in a computation type instruction or the target address in a branch-type instruction.
   e) The _____ holds the address of the next instruction to be read from memory after the current instruction is executed.
   f) An _____ is a program that accepts a symbolic language program and produces its binary machine language equivalent.
   g) A sequence of microinstructions constitutes a _____
   h) The _____ places the operator after the operands.

SECTION – B

Write short notes on **any seven** of the following questions. **(7×2=14)**

2. Define a digital computer.
3. What is an instruction code ?
4. Define addressing modes.
5. Which are the different types of CPU organizations ?
6. Which are the different stack operations ?
7. Define direct addressing.

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8. When is the floating point number said to be normalized ?
9. Which are the different types of signed number representations ?
10. Define recursive subroutine.
11. Expand RISC.
12. Give the execution of register reference instruction.
13. What is write through method ?
14. Define bootstrap loader.
15. What is an auxiliary memory ?

SECTION – C

Answer **any four** of the following questions. **(4×3=12)**

16. Explain the stack organization.
17. Explain the basic operational concepts of computer.
18. Which are the different types of interrupts ?
19. Describe about the basic computer registers.
20. Explain the instruction format.
21. Differentiate between hardwired control and microprogrammed control.
22. Give the memory hierarchy diagram.
23. Give the block diagram of RAM chip.

SECTION – D

Write an essay on **any two** of the following questions. **(2×5=10)**

24. Explain RPN and also describe how arithmetic expression is evaluated.
25. Explain the general register organization with diagram.
26. Write about different addressing modes.
27. Explain instruction cycle with flowchart.
28. Explain different types of instructions.
29. Define cache memory and explain the mapping techniques.
