K20U 1348

Reg. No. : .....

Name : .....

III Semester B.C.A. Degree (CBCSS – Sup./Imp.) Examination, November 2020
(2014-'18 Admns.)
Core Course
3B06BCA : COMPUTER ORGANISATION

Time : 3 Hours

Max. Marks : 40

SECTION – A

Answer **all** questions. **Half** mark **each** :

1. a) A control unit whose binary control variables are stored in memory is called _____

   b) Give an example for macrooperation.

   c) The output of each general register is connected to _____

   d) Who introduced prefix notation ?

   e) _____ technique is used to reduce the number of bits in the addressing field of the instruction.

   f) A memory unit accessed by content is called _____

   g) The register that keeps track of address of the instruction to be executed is called _____

   h) The transfer of information from a memory word to outside environment is _____

(8×0.5=4)

SECTION – B

Answer **any 7** questions. **2** marks **each** :

2. Add +18 with –7 using 2's complement method.
3. What are the different parts of a floating point number ?
4. What is a control function ? Give example.

P.T.O.

5. Distinguish between direct and indirect addressing modes.
6. What is the principle of microprogramming ?
7. How does a CRT monitor work ?
8. What is locality of reference ?
9. What is CISC ?
10. Write any four register reference instructions.
11. Explain base register addressing mode. (7×2=14)

SECTION – C

Answer **any 4** questions. **3** marks **each** :

12. What are the different types of computers ?
13. Draw the diagram and explain procedure to construct a bus system with three-state buffer.
14. What are the different types of commands that an interface may receive ?
15. Distinguish between register stack and memory stack using stack operations.
16. Describe the function of priority encoder. Draw the diagram.
17. Explain address sequencing. (4×3=12)

SECTION – D

Answer **any 2** questions. **5** marks **each** :

18. Explain control functions and microoperations needed for the execution of memory-reference instructions.
19. Describe different modes of data transfer to and from peripherals. Draw necessary diagrams.
20. Write a detailed note on instruction cycle describing various steps involved in it.
21. Compare the characteristics of CISC and RISC. (2×5=10)