



C14-IT-304/C14-CM-304

4234

BOARD DIPLOMA EXAMINATION, (C-14)

OCT/NOV—2018

DIT—THIRD SEMESTER EXAMINATION

COMPUTER ORGANIZATION

Time : 3 hours ]

[ Total Marks : 80

**PART—A**

3×10=30

**Instructions** : (1) Answer **all** questions.

(2) Each question carries **three** marks.

(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Define instruction cycle.

2. Define operand, opcode and address.

3. Differentiate between fixed point and floating point representations. 1+1+1

4. Draw flowchart for floating point addition.

5. Draw flowchart for floating point multiplication.

6. List various memory device characteristics.

7. List the peripheral devices that can be connected to a computer.

8. Explain about destination initiated data transfer using handshaking.

- \* 9. Explain about DMA controller.
10. List the advantages of parallel processing.

**PART—B**

10×5=50

**Instructions** : (1) Answer *any five* questions.

(2) Each question carries **ten** marks.

(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Describe the sequential execution of a program stored in memory by the CPU
12. (a) Define micro-operation and macro-operation. Give an example for each. 5
- (b) Explain about zero address and one address instructions. 5
13. Explain the fixed point multiplication operation with flowchart.
14. Explain the fixed point division operation with flowchart.
15. Explain the principle of cache memory organization with the help of diagram.
16. Explain programmed I/O method of data transfer.
17. Explain daisy-chaining priority method.
- \* 18. (a) Explain about the need for memory hierarchy in a computer. 5
- (b) Explain about array processing. 5

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