



C14-CM-304/C14-IT-304

4234

BOARD DIPLOMA EXAMINATION, (C-14)
OCT/NOV—2017
DCME—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. What is the instruction cycle?
2. Write about fixed point representation with example.
3. Define direct and immediate addressing modes with example.
4. Define OP CODE, OPERAND and ADDRESS.
5. Write about one ADDRESS INSTRUCTION with example.
6. Define the following : 1+1+1
 - (a) Access rate
 - (b) Access time
 - (c) Cycle time

- * 7. Explain the need for an interface.
- 8. Briefly explain about synchronous data transfer.
- 9. List out three modes of data transfer.
- 10. List advantages of pipeline 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. Draw the block diagram of digital computer and explain each unit.
- 12. (a) Explain about program control unit. 6
 (b) Explain implied, indirect register, register indirect addressing modes. 4
- 13. Explain about floating point addition and subtraction with neat sketch.
- 14. Explain fixed point division with neat sketch.
- 15. Write about memory hierarchy in a computer.
- 16. (a) Write about advantages of cache memory. 5
 (b) Explain BUS structure with neat sketch. 5
- * 17. Write about interrupt initiated I/O method of data transfer.
- 18. (a) Write about priority interrupt. 5
 (b) Explain about array processing. 5
