

4234

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH /APRIL-2019

DCME - THIRD SEMESTER EXAMINATION

COMPUTER ORGANIZATION

Time: 3 Hours]

[Max. Marks: 80M

PART-A

10x3=30M

- Instructions:** 1) Answer **all** questions.
2) Each question carries **three** marks.
3) Answer should be brief and straight to the point and shall not exceed five simple sentences.

- 1) Define Fetch cycle and Execution cycle.
- 2) Define operand, opcode and address.
- 3) List any six addressing modes.
- 4) Draw flow chart for floating point addition.
- 5) Write about the fixed point addition.
- 6) Write the need for memory hierarchy in a computer.
- 7) What is the need for an interface?
- 8) Define bus system? List out various bus systems?
- 9) Define Polling?
- 10) Write about the principle of parallel processing?

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PART-B

5x10=50M

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

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

3) The answers should be comprehensive and the criteria for valuation is the content but not the length of answer.

11) Draw the block diagram of accumulator based CPU and explain the function of each unit. 10

12) Draw and explain the flowchart for fixed point multiplication. 10

13) Draw and Explain flow chat for division of floating point numbers. 10

14) a) Explain about Associative memory. (6+4)

b) Explain one address and two address instructions with simple examples.

15) a) Explain the principle of memory interleaving in a computer. (6+4)

b) Write the advantages of cache memory.

16) Explain the programmed I/O and Interrupt initiated I/O modes of data transfer. 10

17) What is DMA data transfer? Explain about DMA controlled data transfer.

18) a) Describe the sequential execution of a program stored in memory.

b) Explain the arithmetic instruction pipeline. (5+5)

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