BOARD DIPLOMA EXAMINATION, (C-20)

JUNE/JULY—2022

DCME - FOURTH SEMESTER EXAMINATION

COMPUTER ORGANIZATION AND MICROPROCESSORS

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 register.
2. What is the purpose of memory buffer register?
3. Draw the flowchart for the fixed point multiplication.
4. Define Opcode, Operand and Address.
5. What is an alterability?
6. Define Main Memory.
7. Write about Cycle Stealing.
8. What is the need for interface?
9. Define Microprocessor.
10. What is flag? List the different types of flag.

PART—B 8×5=40

Instructions : (1) Answer all questions.

(2) Each question carries eight marks.

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

11. *(a)* Explain the purposes of following terms :

(i) Program counter and *(ii)* Instruction register

(OR)

(b) Explain the sequential execution of stored program in memory by the CPU.

12. *(a)* Explain floating point addition/subtraction operation with flow-chart.

(OR)

(b) Explain different types of Instruction.

13. *(a)* Explain memory hierarchy in a computer.

(OR)

(b) Explain cache memory organization.

*

14. *(a)* Explain hand shaking mode of data transfer with timing diagram.

(OR)

(b) Explain Priority Interrupt mode of data transfer.

15. *(a)* List the features of 80486 and Pentium processors.

(OR)

(b) Explain the functional block diagram of 8086 processor.

PART—C

10×1=10

Instructions : (1) Answer the following question.

(2) The question carries ten marks.

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

16. What technique is used to automatically move program and data blocks into physical main memory when they are required for executaion?

* * *

*