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Roll No.					Total No. of Pages : 02

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B.Tech. (Artificial Intelligence & Machine Learning/Computer Engineering/Computer Science & Engineering/Computer Science & Engineering (Artificial Intelligence & Machine Learning)/Information Technology/CSE (Internet of Things and Cyber Security including Block Chain Technology)/CSE (PIT)) (Sem.-4)

COMPUTER ORGANIZATION AND ARCHITECTURE

Subject Code: BTES-401-18 M.Code: 77627

Date of Examination: 05-07-22

Time: 3 Hrs. Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

- SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- 2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
- 3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly

- a) What is Control Unit?
- b) Discusss carry look-ahead adder.
- c) Write functioning of USB.
- d) Define concept of Memory Organization.
- e) What is meant by division restoration?
- f) Write use of software interrupts?
- g) What are CPU registers?
- h) Discuss floating point arithmetic.
- i) Briefly explain cache size?
- j) List advantages of pipelining?

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SECTION-B

- 2. Explain different addressing modes used in central processing unit.
- 3. What are the advantages and disadvantages of hardwired and microprogrammed design approaches?
- 4. What is DMA? Give an example, where DMA mode of data transfer is useful.
- 5. Discuss the role of cache coherency in parallel processors?
- 6. How the data is represented in computer architecture? Explain with example

SECTION-C

- Priefly explain the block diagram and instruction set of 8085 processor? How 8085 is different from 8086?
- 8. What is the need of replacement algorithms in memory organization? Explain with example.
- 9. Discuss the role of pipelining for data processing in computer organization. How it increases the throughput?

NOTE: Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.

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