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Total No. of Pages : 02

Total No. of Questions : 09

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 :

1. **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) Discuss 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?

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

7. Briefly 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.