

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (Software Engineering) (Sem.-4)
COMPUTER ORGANIZATION AND ARCHITECTURE

Subject Code : SE402-19

M.Code : 80026

Date of Examination : 02-07-22

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) Draw a block diagram of computer with detailed components.
- b) What do you mean by SISD and SIMD? Why are they used?
- c) What is the advantage of ripple carry adder?
- d) How carry save multiplier works?
- e) What do you mean by microprogrammed design? Give example.
- f) What is the role of SCSI?
- g) Discuss I/O interface in brief.
- h) What is the role of SCII in computer architecture?
- i) Differentiate immediate and implied addressing modes.
- j) Differentiate RAM and cache memory.

SECTION-B

2. Discuss the role of DMA.
3. Differentiate interrupts and exceptions in a system.
4. List and explain all types of ROMs.

5. Draw the architecture of cache coherence and explain it.
6. How replacement algorithm works? What is its purpose?

SECTION-C

7. Explain memory hierarchy design and organization with its characteristics.
8. What do you mean by USB? What is its latest version? Write down the advantages and disadvantages of USB in detail.
9. What are addressing modes? Explain all of them with example of each.

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