



# SNS College of Technology, Coimbatore-35. (Autonomous)

B

### B.E/B.Tech- Internal Assessment -II Academic Year 2023-2024(ODD)

#### **Third Semester**

**Computer Science and Engineering** 

## 19ITT202 & Computer Organization and Architecture [Common to CSE & IT]

Time: 1.5 Hours Maximum Marks: 50

#### **Answer All Questions**

		PART - A (5x 2 = 10 Marks)	CO	Blooms
1.		How does Computer architecture impact the speed of addition and	CO2	Und
1.		Multiplication?		
2.		Why floating-point number is more difficult to represent and process than integer?	CO2	Ana
3.		List the algorithm for non-restoring division	CO2	Rem
4.		What are the steps required for a pipelined processor to process the instruction?	CO3	Rem
5.		How addressing modes affect the instruction pipelining?	CO3	Und
		PART – B (13+13+14=40 Marks)		
6.	(a)	Examine the two Signed numbers of 23 and -9 by using the Booth's multiplication algorithm	CO2	App
		(or)		
	(b)	Perform Division Restoring Algorithm for the following inputs:	CO2	App
		Dividend = 11 Divisor = 3		
7.	(a)	Analyze the purpose of the various elements of an 13 instruction with the help of a sample instruction format.	CO3	Ana

(or)

- (b) Write the steps in fetching a word from memory. 13 CO3 Und Differentiate between branch instructions and call subroutine instruction.
- 8. (a) Formulate binary Multiplication of Positive integer Numbers 14 CO2 App with Register Configuration diagram.

Multiplicand (M=13): 1101 &

Multiplier (Q=11): 1011

(or)

(b) Evaluate the arithmetic statement X = (A + B)\*(C + D) using 14 CO3 App a general register computer with three address, two address and one address instruction format a program to evaluate the expression.

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(Note: Und-Understand Rem-Remember Ana-Analyze App-Apply Cre- Create)

Prepared by Verified by HoD