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Subject Code: ACSBS 0303

Roll No:

2001331360011

## NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

Course: B.Tech

Branch: CSBS

(SEM III SESSIONAL EXAMINATION -II) (2021-2022)

Computer Organization and Architecture(ACSBS-0303)

Time: 1.15 Hours

SET-B

Max. Marks:30

## **General Instructions:**

- This Question paper consists of ...2...pages & ...5...questions. It comprises of three Sections, A, B, and C
- Section A -Question No-1 is objective type questions carrying 1 mark each, Question No-2 is very short answer type carrying 2 mark each. You are expected to answer them as directed.

Section B - Question No-3 is Short answer type questions carrying 5 marks each. Attempt any two out of three questions given.

Section C -Question No. 4 & 5 are Long answer type (within unit choice) questions carrying 6 marks each. Attempt any one part <u>a or b.</u>

		SECTION - A	[8]	
/				
X.	All	questions are compulsory.	(4×1=4)	CO 2
	3/	is used for binary multiplication?	(1)	002
T		i) Restoring Multiplication	(1)	
		ii) Booth's Algorithm		
		iii) Pascal's Rule		
		iv) N.O.T		
1	b.	Booth's Algorithm is applied on	(1)	
		i) Counter	(1)	
		ii) Flip flop		
		Shift register		
1		iv) Push down stack		
	c.	IEEE 754 representation for	(1)	
		Floating Point Number.	(-)	
		ii) Integer no.		
		iii) Binary no.		
		iv) Octal no.		
1	d.	The addressing mode which makes use of in-direction pointers is	. (1)	
		Indirect addressing mode	(1)	
		ii) Index addressing mode		
		iii) Direct addressing mode		
		iv) N.O.T		

a. Explain Half Adder with the help logical diagram.  Describe IEEE 754 with any two examples.  SECTION - B  3. Answer any two of the following-  A. What is Adder? Explain the logical diagram & truth table for full adder.  Design the 1 bit ALU with suitable diagram.  C. Specify significance of array multiplier with suitable example.  SECTION - C  Answer any one of the following-(Any one can be seed to the fol	a. Explain Half Adder with the help logical diagram.  Describe IEEE 754 with any two examples.  SECTION – B  3. Answer any two of the following-  a. What is Adder? Explain the logical diagram & truth table for full adder.  b. Design the 1 bit ALU with suitable diagram.  (5)  Section – C  4 Answer any one of the following-(Any one can be applicative if applicable)  Explain different addressing modes with the help of diagrams.  (6)  Explain Fixed and floating-point representations with example.  (6)  5. Answer any one of the following-  Explain the Flow chart & Booth multiplication algorithm with an example.  (6)  What is Ripple Carry adder? Also explain the concept of carry look ahead adder.	The same of the sa			NAME AND ADDRESS OF THE OWNER, WHEN	
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