CO

18CSR166

DEPT. OF COMPUTER SCIENCE & ENGG.
KONGU ENGINEERING COLLEGE,
THOPPUPALAYAM (PO)
PERUNDURAI (TK), ERODE - 638 060

SSK	19.8.19
Name and signature of Hall Supdt. with Date	

KONGU ENGINEERING COLLEGE

PERUNDURAI ERODE - 638 060.

(Autonomous)

Estd : 1984

Name of the Student	S.SAKTHIPRASANNA	Register No.	1	8	C	S	R	1	6	6
Programme	BE	Branch & Semester	Computer Science III							
Course Code and Name	18CST32 Computer Organization	Date	19.08.2019			No.of Pages Used		7.		

MARKS TO BE FILLED IN BY THE EXAMINER

PART - A		PART - B			Grand Total Max. Marks : 50
Question No.	Max Marks : 2	Question No.		Max Marks : 10	
1	0	11	i)	2	24
2	0		ii)	0	
3	0	12	i)		
4	0		ii)		
5	-	13	i)	0	
6	2		ii)	0	
7	0	14	i)	0	
8	0		ii)		
9	0				
10	0				
TOTAL	2	TOTAL		2	

Verified
S.sakthiprasanna

Total marks in words : Zero Four

INSTRUCTION TO THE CANDIDATE

1. Check the Question Paper, Programme, Course Code, Branch Name etc., before answering the questions.
2. Use both sides of the paper for answering questions.
3. POSSESSION OF ANY INCRIMINATING MATERIAL AND MALPRACTICE OF ANY NATURE IS PUNISHABLE AS PER RULES.

Name of the Examiner

Signature of the Examiner with Date

PART-A

1) 2,4

0010 0100

1 1

0110 0101

-2, =4

=0110 0101.

2) 4 3

0100 0011

(-)1

1110 0001

+4 =1110 3 = 0001

43 = 0101.

3) The 8bit that the representation of 2 would require

0100

(-)1

0110

4) Array
Loops
pointers
Constants

5) $C_n \oplus C_{n-1}$

$= 0 \oplus 0 \; 1 \; 0$

$= 0 \; 0 \; 0 \; 1 \; 0$

$0 + 1 \quad 1$

6) A = 1 1 1 1 1 0 1 0

B = 0 0 0 0 1 0 1 0

1 1 1 1 1 0 1 0

0 0 0 0 1 0 1 0

1 1 1 1 1 0 1 0

0 1 1 1 1 0 0 1 1

$= 0 \; 1 \; 1 \; 1 \; 1 \quad 0 \; 0 \; 1 \; 1$

7) $b(n-1)-1$

$= 0 \; 1 \; 1 \; 0 \; (b-1)-1$

$= 0 \; 1 \; 1 \; 0 \; (5)-1$

$= 0 \; 0 \; 1 \; 1 \; 1 \; 0 \; 0 \; 1$

8 4 2 1

Booth algorithm - 4.

9) There 3 (3-2) reduction levels
are needed to reduce 16
Summands 2

0 0 1 0
0 0 1 0
0 0 1 1

0 0 1 1 0 0 1 0
0 0 1 1 0 0 1 0
0 0 1 1 0 0 0 0
0 0 1 0 0 0 0 0
0 0 1 1 0 0 0 0
0 1 0 0 0 0 1 0
0 1 0 0 0 0 1 0
0 0 0 1 0 1 0 0
0 1 0 1 0 1 1 0

10 1 1 0 1 1 0 1 1

0 0 1 0 0 0 1 0

0 1 1 0 1 1 0 0 1

0 1 1 0 0 1 0 1 0

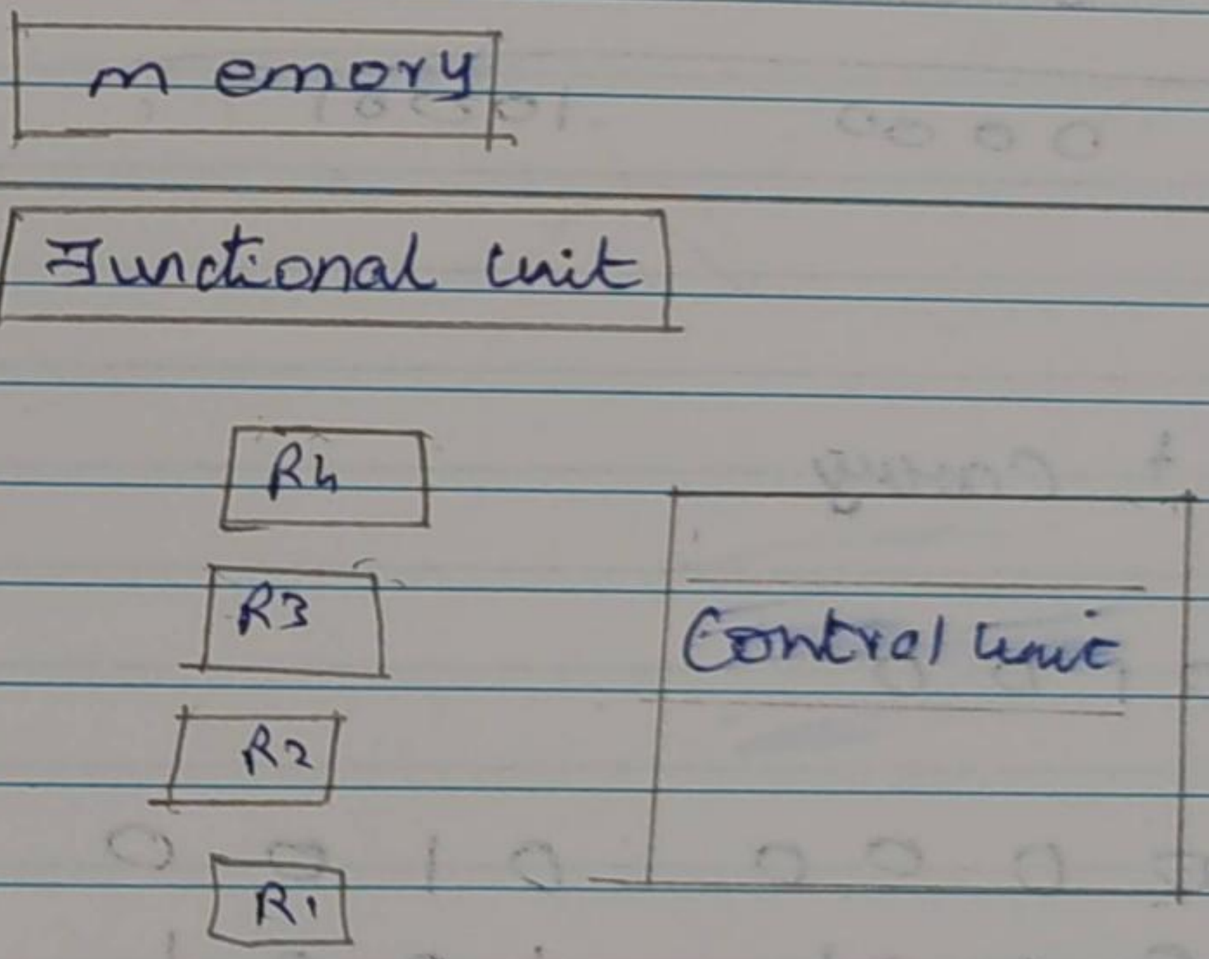
0 0 0 1 1 0 1 1

0 1 0 0 1 1 0 1 0

0 0 0 1 1 0 1 1

PART - B

(i)



(ii)

a) 7 and 9

0 1 1 1 1 0 0 1

1

0 1 1 1 1 0 0 1

0 1 0 1 1 0 1 0

0 1 1 0 0 1 1 1

0 0 0 1 0 1 0 0

0 1 1 1 1 0 1 0

0 0 0 0 0 0 1 0

1 1 1 1 0 0 0 1

0 0 0 1 1 0 0 1

0 0 0 0 1 0 0 0 1

13)

(i) 4 bit carry

0 1 0 0

0 0 0 0 0 1 0 0

0 0 0 1 1 0 0 1

0 0 0 1 1 1 0 1

0 0 0 0 0 0 0 0

0 0 0 1 1 1 0 1

0 1 0 0 0 0 0 1

0 1 0 1 1 0 0 1

1.1 n-1.

ii) 4 5

0 1 0 0

0 1 1 1

1 0 1 0

0 1 0 1

1 0 0 1

0 1 1 1

1 0 1 0

0 1 0 1

1 0 0 1

1 1 1 0

1 1 0 1

4)

A = 0 1 0 1 1 1

B = 1 1 0 1 1 0