



SYNERGY INSTITUTE OF ENGINEERING AND TECHNOLOGY, DHENKANAL

Near NH-55, Banamaliprasad – 759001

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

NBA ACCREDITED

Assignment-IV

Full Marks-40 Duration- Within 1 Week from Notification
Name- Registration No-

Subject with Code: Computer Organization and Architecture (CSPC2005)

Year & Semester: 2nd & IV

Course & Branch: B. Tech. & CSE

Academic Session: 2024-2025

Course Outcome	Total Marks	Marks Secured	Signature of Evaluator
CO4	40		
Level	Total Marks	Marks Secured	
L1-L3			
L4-L6			

Section-A

Answer All Questions

1. What is the advantage of using Booth algorithm? [2 marks] [CO4] [L2]
2. Write the algorithm for restoring division [2 marks] [CO4] [L2]
3. Write the algorithm for non-restoring division. [2 marks] [CO4] [L2]
4. In floating point numbers when so you say that an underflow or overflow has occurred? [2 marks] [CO4] [L2]

Section-B

Answer All Questions

1. Generate bit pair recoding of 11010. [6 marks] [CO4] [L2]
2. Using restoring division method, divide 8 by 3. [6 marks] [CO4] [L2]

Section-C

Answer All Questions

1. Using non-restoring division method, divide 8 by 3. [10marks] [CO4][L2]
2. Carry out multiplication of below two numbers using booth algorithm.

(+13)x(-6)

[10marks] [CO4][L2]

Additional Questions

1. Explain normalization of floating point numbers.
2. Differentiate between single and double precision floating point numbers..
3. Explain fast multiplication using bit pair recording..