



School of Computer Science and Engineering

Winter Semester 2022-2023

Continuous Assessment Test – I

Programme Name & Branch: BCB, BCE, BCI, BCT, BDS, BKT

SLOT: A2+TA2

Course Name & code: Computer Architecture and Organization- BCSE205L

Class Number (s): VL2022230502972, VL2022230504131

Faculty Name (s): Prof. AJITHA D, Prof. VENKATA PHANIKRISHNA B

Exam Duration: 90 Min.

Maximum Marks: 50

General instruction(s): Answer all questions

Q.No	Question	Max Marks
1.	a) Describe the Interconnection various functional components of a Computer (4 Marks) b) Write an assembly code for computing $A = (B * C) / D$ expression using IAS instructions (6 Marks) Assume that inputs are available in the memory locations 701 and 702, 703. Store the result in memory locations 704 and 705.	10 [4 + 6]
2.	a) Draw the flowchart for Booths Algorithm (4 Marks) b) Perform multiplication of -11×3 using Booths Algorithm (6 Marks) Description of each step should be given	10 [4 + 6]
3.	a) Outline the representation of floating point numbers (4 Marks) b) Multiply 7×-3 using Modified Booths Algorithm (6 Marks) Description of each step should be given	10 [4 + 6]
4.	a) Compare 1's and 2's complement representation (4 Marks) b) Perform 15 divided by 4 using non-Restoring Division Algorithm for Unsigned Integer. (6 Marks) Description of each step should be given	10 [4 + 6]
5.	Discuss the operation of IAS computer with a neat flow chart	10