

MCA 1st year 2nd Semester 2020
Class Test – 1
Sub: Computer Organization and Architecture

Answer any three

Time: 1 hr.

Full Marks: 30

1.	a. Write down two differences between Computer Architecture and Organization.	2
	b. Compare RISC with CISC (4 points at most).	2
	c. Discuss the pros and cons of 2's complement, 1's complement, and sign-and-magnitude number representation (one each).	6
2	a. Implement the following expression in 1-address, 2-address, 3-address machines: $(X-Y)*(X+Y)*(X/Y)$. (Variables: Suppose your name is Amar Pal, then take variable name as 'A' and 'P' (i.e. replace X and Y with A and P respectively))	10
3.	a. Define the terms: Stack-pointer, Base and Limit registers.	3
	b. What are the basic operations of Control Unit? What are the application of stack?	2+2
	c. What are differences between relative addressing and absolute addressing?	3
4.	Pictorially describe Wilkes Design with its functions. Consider a 3x8 decoder. Start with 000, then take last digit of your roll number, and this will be the next 3-bit address.	10