DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Winter Examination – 2022

Course: B. Tech. Branch :Computer Science & Engineering Semester :III

Subject Code & Name: (BTCOC304)Computer Architecture & Organization

Max Marks: 60 Date: Duration: 3 Hr.

Instructions to the Students:

1. *All the questions are compulsory.*
2. *The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in ( ) in front of the question.*
3. *Use of non-programmable scientific calculators is allowed.*
4. *Assume suitable data wherever necessary and mention it clearly.*

		(Level/CO)	Marks
Q. 1	**Solve Any Two of the following.**		**12**
A)	Explain the different components of Central Processing Unit?	Understand	**6**
B)	Explain different types of memories with examples?	Remember	**6**
C)	Explain with neat diagram computer components top- level view?	Analysis	**6**
Q.2	**Solve Any Two of the following.**		**12**
A)	Explain different types of instructions sets.	Remember	**6**
B)	Explain different addressing modes.	Analysis	**6**
C)	Explain the architecture of RISC and CISC processor.	Understand	**6**
Q. 3	**Solve Any One of the following.**		**12**
A)	Explain the function of ALU.	Understand	**6**
B)	Briefly explain the following representations: sign magnitude, twos complement.	Synthesis	**6**
C)	What are the four essential elements of a number in floating-point notation?	Analysis	**6**
Q.4	**Solve Any Two of the following.**		**12**
A)	Explain types of semiconductor memories technologies.	Understand	**6**
B)	Explain memory hierarchy in computer system.	Remember	**6**
C)	Explain the working of optical memory.	Understand	**6**
Q. 5	**Solve Any One of the following.**		**12**
A)	Explain Programmed I/O module and Interrupt driven I/O.	Understand	**6**
B)	Explain Input/output organization of computer system.	Remember	**6**
C)	Explain the Flynn's classification.	Analysis	**6**