Total number of printed pages: 30

D/3rd/DCSE301

2022

Computer Architecture and Organization

Full Marks : 100

Time : Three hours

The figures in the margin indicate full marks for the questions.

*Answer **any five** questions.*

1.	a)	Explain the basic components of your computing system and their roles.	10
	b)	Define Instruction and explain various phases involved in the Instruction cycle.	10
2.	a)	Explain the computing process of playing music on your computing device.	10
	b)	Explain the role of translator in computing and its types.	10
3	a)	Explain the working principle of Multiplexer with an example. Mention its applications in computing.	10
	b)	Explain the working principle of decoder with an example. Mention its applications in computing.	10
4.	a)	Explain the concept of bit, byte and word with examples.	5
	b)	Discuss the Memory Hierarchy in computer systems with regard to Speed, Size and Cost?	15
5.	a)	Discuss different types of addressing modes with examples.	15
	b)	Explain different types of instructions.	5

6.	a)	Explain different types of onboard registers and their roles.	15
	b)	Find 2s complement of 101101100	5
7	a)	Represent (-5.7) using 2s complement representation	10
	b)	Represent (11101.01011) into decimal and octal.	10