

KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION

(Deemed to be University)

Anand Nagar, Krishnankoil – 626 126.

END SEMESTER EXAMINATIONS, NOV/DEC 2022**212CSE2102-Computer Architecture and Organization**

(Common To All Sections)

Time : 180Minutes

Degree: B.Tech.

Maximum : 100 Marks

(Answer ALL Questions of PART A and PART B)

Assessment Pattern as per Bloom's Taxonomy:

Remember	Understand	Apply	Analyze	Evaluate	Create	Total
28	120	0	16	16	0	180

PART – A (10 × 2 = 20 Marks)

		Pattern	Mapping COs	Marks
1.	Explain the functions of control unit?	Understand	CO1	(2)
2.	Define absolute addressing mode?	Remember	CO1	(2)
3.	Describe the algorithm for restoring division.	Remember	CO2	(2)
4.	Explain about the special values in the floating point numbers.	Understand	CO2	(2)
5.	State different types of hazards that can occur in the pipeline.	Remember	CO3	(2)
6.	List out various branching technique used in micro program control unit?	Remember	CO3	(2)
7.	Explain virtual memory technique.	Understand	CO4	(2)
8.	Define cache memory.	Remember	CO4	(2)
9.	Name some of the IO devices.	Remember	CO5	(2)
10.	Define modes of data transfer in memory organization?	Understand	CO5	(2)

PART – B (5 × 16 = 80 Marks)

		Pattern	Mapping COs	Marks
11a	What do you mean by addressing mode? Explain the following addressing modes with examples. i) Direct and Indirect Addressing Mode ii) Immediate Addressing Mode.	Understand	CO1	(16)
	[OR]			
11b	Discuss in detail about basic concepts of instructions and its instruction sequencing.	Understand	CO1	(16)
12a	Illustrate multiplication algorithm in signed magnitude representation	Understand	CO2	(16)
	[OR]			
12b	Discuss the following floating point representations. a)single-precision format b)double-precision format.	Understand	CO2	(16)
13a	Describe instruction level parallelism and superscalar operation?	Remember	CO3	(16)

	[OR]				
13b	Illustrate the setup involved in instruction execution using state diagram.	Understand	CO3	(16)	
14a	Distinguish between the write-through and write-back policies pointing out their merits and demerits?	Evaluate	CO4	(16)	
	[OR]				
14b	Discuss the function of a TLB in detail? (Translation Look-aside Buffer)	Understand	CO4	(16)	
15a	What is DMA? Explain the block diagram of DMA. Also describe how DMA is used to transfer data from peripherals.	Analyze	CO5	(16)	
	[OR]				
15b	Summarize different standard I/O interfaces?	Understand	CO5	(16)	

Assessment Summary:

COs	Remember	Understand	Apply	Analyze	Evaluate	Create	Total
CO1	2	34	0	0	0	0	36
CO2	2	18	16	0	0	0	36
CO3	20	0	0	16	0	0	36
CO4	2	18	0	0	16	0	36
CO5	2	18	0	16	0	0	36
TOTAL	28	88	16	32	16	0	180
