Reg. No. : | | | | | | | | | | | | |

Question Paper Code :R3205S

B.E./B.Tech. DEGREE EXAMINATION, NOV 2024

Third Semester

Computer Science and Engineering

R21UCS305-COMPUTER ORGANIZATION

(Common to ECE, IT, CSBS, AI&DS, CSD, CSE(AIML), IOT & CYBER SECURITY)

(Regulations R2021)

Duration: Three hours | Maximum: 100 Marks

Answer All Questions

PART A - (10 x 2 = 20 Marks)

1.	What is the straight-line sequencing?	CO1-U
2.	Define Addressing mode& list out the various types of addressing mode	CO1-U
3.	Find the 2's complement form for –39,-120.	CO1-U
4.	What is non –Restoring division?	CO1-U
5.	What is Data Hazard?	CO1-U
6.	What is branch folding?	CO1-U
7.	Define seek time and latency time	CO1-U
8.	Define hit rate	CO1-U
9.	How is the interrupt handled during exception?	CO1-U
10.	What are the three types of buses?	CO1-U

PART – B (5 x 16= 80 Marks)

11.	(a)	Explain in detail the various components of computer system with neat diagram.	CO1-U	(16)
		Or		
	(b)	What do you mean by addressing modes? Explain various addressing modes with the help of an Examples	CO1-U	(16)
12.	(a)	Describe how the floating-point numbers are represented and used in digital arithmetic operations. Give an example	CO1-U	(16)
		Or		

	(b)	Explain the data path and control unit in detail	CO1-U	(16)
13.	(a)	Define parallel processing and explain the flynn's classification of computer with suitable diagram	CO1-U	(16)
		Or		
	(b)	Explain SPMD and MPP in detail	CO1-U	(16)
14.	(a)	Explain about main memory and its types.	CO1-U	(16)
		Or		
	(b)	What is the use of Translation Look aside Buffers in Virtual Memory organization ? With a neat sketch explain the organization of associative mapped TLB.	CO1-U	(16)
15.	(a)	Explain the concept of I/O Systems with necessary diagrams.	CO1-U	(16)
		Or		
	(b)	Describe the working principle of Serial Port in interface circuits.	CO1-U	(16)