B.Tech - Even Sem : Semester in Exam-I
Academic Year:2021-2022
21EC1202 - COMPUTER ORGANIZATION & ARCHITECTURE
Set No: 1

Time:				Max.Marks: 50			
S.NO	Answer All Questions	Choice	Options	Marks	CO	CO BTL	COI BTL
1.	Provide the assembly language using two-address instructions for the give expression: Z=(AB+3C+2D-E)/6.	choice Q-2		4.5Marks	CO1	2	1
2.	Illustrate the state diagram and explain in brief			4.5Marks	CO1	2	1
3.	Differentiate Assembly language programming, Machine level programming and High-level programming.	choice Q-4		8Marks	CO1	2	2
4.	Design an ALU (with any 4 operations) using the suitable combinational logic circuit/s.			8Marks	CO1	2	2
5.	Sketch the Von Neumann architecture and explain it in brief. Organize the words computer architecture and computer organization. Relate the attributes with suitable examples.	choice Q-6		12.5Marks	CO1	2	1
6.	Interpret the functionality of all Addressing Modes with suitable diagrams.			12.5Marks	CO1	2	2
7.	Explain in detail about basic components of CPU.	choice Q-8		4.5Marks	CO2	2	1
8.	List and emphasize on various tasks performed by CPU.			4.5Marks	CO2	2	1
9.	Explain the Microprogrammed Control CPU design in detail with a neat sketch and list its merits and demerits.	choice Q-10		8Marks	CO2	2	2
10.	Illustrate the internal structure of the CPU with internal CPU buses.			8Marks	CO2	2	2
11.	Define Instruction Cycle and elaborate on Instruction interpretation and execution. Describe the Bus System of CPU with appropriate diagrams.	choice Q-12		12.5Marks	CO2	2	1
12.	Report the flow of data through the single bus organization inside the CPU. Discuss different processor status word.			12.5Marks	CO2	2	2

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