

Semester Lecture Plan

Name of the college: Government College of Arts, Science and Commerce, Sanquelim Goa							
Name of Faculty: Shubha Kamat			Subject: Computer Science				
Paper code: CSC213 Computer Organisation			Program/Course:SYBSc		Division:		
Academic year: 2025 - 2026			Semester: III		Total Lectures: 45		
Course Objectives ● Conceptualise the Basics of Computer Organisational and Architectural issues and Classify the computers based on performance and Machine instructions ● Learn various data Transfer techniques and I/O interfaces ● Estimate and compare performance of various Classes of Memory ● Understand the basics of ALU implementation , Hardwired and microprogrammed Control Units , pipelining and Parallel Architechture.							
Course outcomes ● 1.Explain the theory and architecture of Central Processing unit, I/O and Memory organisation ● 2.Understand concepts of parallel Processing pipelining and inter Processor communication ● 3.Represent different number systems and perform various binary operations ● 4.Analyse design issues in terms of speed , technology, cost,performance , CPU architecture.							
Month	Lectures From: To:		No. of lectures allotted	Topic, Subtopic to be covered	Learning outcome	ICT Tools	Reference books
June	23	28	3	Introduction to Logic Gates and Boolean Algebra:	CO1	LCD, PPTs	
	30	July 5	3	Combinational Circuits and Karnaugh Map Data Representation:	CO1	LCD, PPTs	---do--
July	7	12	3	Number Systems, Signed number, Fixed, Floating	CO3	LCD, PPTs	---do--

				point, Character representation,			
	14	19	3	Addition, Subtraction, Multiplication, Shift and Add, Booth's Algorithm, Division. Pseudocode Definition and its attributes, constructs and examples	CO3	-do-	---do--
	21	26	3	Memory Hierarchy, Types of Memory- Internal and External, Cache Memory, Memory interleaving	CO1	-do-	---do--
	28	August 2	3	Introduction to Computer Architecture, Flynn's Classification, Performance Metrics.,	CO4	-do-	---do--
August	4	9	3	Fundamental Blocks of Computer, Computer Function	CO1	-do-	---do--
	11	16	3	Interconnection Structures, Bus Interconnection	CO1	-do-	-do--
	18	23	3	Peripheral Devices: Types I/O sub systems, Programmed I/O, Interrupt Driven I/O	CO1	-do-	
September	2	6	3	DMA, I/O channels and Processors	CO1	-do-	---do--
	8	13	3	Instruction Set Architecture (ISA) Types of ISA- RISC and CISC	CO2	-do- -do-	---do--
	15	20	3	Processor Organisation Register Organisation	CO2	-do-	---do--

	22	27	3	Instruction Execution Cycle, Instruction formats, Addressing Modes, Register Transfer Language(RTL)	CO2	-do-	---	do--	:
	29	Oct 4	3	Assembly Language Programming ARM Architecture	CO2	-do-		---	do--
October	6	11	3	X86 Architecture.	CO4	-do-		---	do--
	13	18	3	Revision					