

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

Course Schedule: June - November 2024

Department : Physics
Name/s of the Faculty : Dr. Belina Xavier
Course Title : Microprocessors and Microcontrollers
Course Code : 19PH/MC/MM53
Shift : I

Week & No. of hours	Units & Topics	Teaching Methodology	Text & References	Method of Evaluation
Jun 19 – 26, 2024 (Day Order 1 - 6)	Unit 1 Central Processing Unit (CPU) 1.1 Bus structure-address, data and control system bus-	Lecture Power Point Presentation	Microprocessor Architecture, Programming and Applications with the 8085. Ramesh Gaonkar	Questioning on the topic
Jun 27 – July 4, 2024 (Day Order 1 - 6)	Memory and I/O interface block diagram- CPU 8085. 1.2 Architecture: general purpose registers, ALU, accumulator, program counter,	Lecture Power Point Presentation	Microprocessor Architecture, Programming and Applications with the 8085. Ramesh Gaonkar	Questioning on the topic
July 5 – 12, 2024 (Day Order 1 - 6)	1.2 instruction register, stack, push/pop operations, flag register	Lecture Power Point Presentation	Microprocessor Architecture, Programming and Applications with the 8085. Ramesh Gaonkar	Questioning on the topic
July 15 – 23, 2024 (Day Order 1 - 6)	Unit 2 Addressing Modes and instruction set 2.1 Addressing modes: direct, register, immediate, register in-direct addressing modes.	Lecture Power Point Presentation	Introduction to Microprocessors Adithya.P. Mathur	Questioning on the topic
July 24 – 31, 2024 (Day Order 1 - 6)	2.2 Instruction set: data transfer group	Lecture Power Point Presentation	Fundamentals of Microprocessor-8085 Architecture Programming and Interfacing Vijayendran. V	Quiz (III component)

Aug 1 – 5, 2024 (Day Order 1 - 3)	2.2 arithmetic group, and logic group instruction. 2.3 Timings of 8085 – fetch and execute cycle.	Lecture Power Point Presentation	Fundamentals of Microprocessor-8085 Architecture Programming and Interfacing Vijayendran. V	Questioning on the topic
Aug 6 – 10, 2024	C.A. Test – I			

Aug 12 – 14, 2024 (Day Order 4-6)	Unit 3 Software Program 3.1 Arithmetic operations: addition, subtraction, multiplication and division of single byte numbers	Lecture cum Demonstration	Fundamentals of Microprocessor-8085 Architecture Programming and Interfacing Vijayendran. V	Program test (III component)
Aug 16 – 23, 2024 (Day Order 1-6)	3.1 - multi-byte addition. Search an array for a given byte 3.2 sorting an array in ascending/ descending order	Lecture Power Point Presentation	Fundamentals of Microprocessor-8085 Architecture Programming and Interfacing Vijayendran. V	Questioning on the topic
Aug 27 – Sep 3, 2024 (Day Order 1-6)	Unit 4 Interfacing I/O devices and interrupt circuit 4.1 Types of interfacing devices: Address decoding for I/O – Input and output ports	Lecture Power Point Presentation	Microprocessor Architecture, Programming and Applications with the 8085. Ramesh Gaonkar	Questioning on the topic
Sep 4 – 11, 2024 (Day Order 1-6)	4.2 8085 Interrupt circuit – restart instructions	Lecture Power Point Presentation	Microprocessor Architecture, Programming and Applications with the 8085. Ramesh Gaonkar	Questioning on the topic
Sep 12 - 20, 2024 (Day Order 1-6)	4.2 Hardware Interrupts	Lecture Power Point Presentation	Microprocessor Architecture, Programming and Applications with the 8085. Ramesh Gaonkar	Questioning on the topic
Sep 23 - 26, 2024 (Day Order 1-4)	4.2 Interrupt priorities Unit 5 Microcontrollers and Embedded systems 5.1 Micro-Controller-8051- architecture	Lecture Power Point Presentation	8051 Microcontroller – Architecture, Programming and applications Kenneth J. Ayala,	Scrap book (III component)
Sep 27 – Oct 3, 2024	C.A. Test – II			
Oct 4 – 5, 2024	5.1 Applications	Lecture	8051	Questioning on the

(Day 5 & 6)	5.2 embedded system concept	Power Point Presentation	Microcontroller – Architecture, Programming and applications Kenneth J. Ayala,	topic
Oct 7 - 15, 2024 (Day Order 1 to 6)	5.2 embedded system concept	Lecture Power Point Presentation	8051 Microcontroller – Architecture, Programming and applications Kenneth J. Ayala,	Questioning on the topic
Oct 16 - 22, 2024 (Day Order 1 to 6)	5.2 Embedded microcontroller pic series-applications	Lecture Power Point Presentation	8051 Microcontroller – Architecture, Programming and applications Kenneth J. Ayala,	Questioning on the topic
Oct 23 - 24, 2024 (Day Order 1 to 2)	REVISION			