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G. VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS), KOVILPATTI – 628 502.



UG DEGREE END SEMESTER EXAMINATIONS - NOVEMBER 2025.

(For those admitted in June 2023 and later)

PROGRAMME AND BRANCH: B.Sc., ELECTRONICS

SEM	CATEGORY	COMPONENT	COURSE CODE	COURSE TITLE
V	PART - III	CORE - 9	U23EL505	MICROPROCESSOR AND MICROCONTROLLER

Date & Session: 04.11.2025/FN

Time : 3 hours

Maximum: 75 Marks

Course Outcome	Bloom's K-level	Q. No.	SECTION – A (10 X 1 = 10 Marks) Answer <u>ALL</u> Questions.
CO1	K1	1.	The time taken for an instruction to complete is called _____. a) Instruction Cycle b) Machine Cycle c) Program Cycle d) Data Cycle
CO1	K2	2.	Number of pins in an 8085 microprocessor is _____. a) 10 b) 20 c) 30 d) 40
CO2	K1	3.	Unit II 8051 has _____ number of ports. a) 1 b) 2 c) 3 d) 4
CO2	K2	4.	In microcontroller, SFR stands for. a) Special Function Routine b) Special Function Register c) Sub Function Routine d) Sub Function Register
CO3	K1	5.	Which of the following is not an addressing modes. a) Direct b) indirect c) Request d) Register
CO3	K2	6.	Which of the following instruction is correct. a) MUL A,B b) MUL AB c) MUL A*B d) MUL A-B
CO4	K1	7.	Timer in 8051 is ____ bits. a) 4 b) 8 c) 16 d) 32
CO4	K2	8.	In RS232 communication, the speed is mentioned as. a) Transfer rate b) Baud rate c) Byte rate d) bit rate
CO5	K1	9.	Which of the following is used to convert non digital signal to digital data. a) ADC b) DAC c) I2C d) ASM
CO5	K2	10.	The mode used in 8255 to set port C as bit operation is. a) BSR b) PCB c) RST d) DAC
Course Outcome	Bloom's K-level	Q. No.	SECTION – B (5 X 5 = 25 Marks) Answer <u>ALL</u> Questions choosing either (a) or (b)
CO1	K3	11a.	Calculate and explain the possible address for memory mapped I/O in 8085.
CO1	K3	11b.	(OR) Write about the opcode fetch cycle with timing diagram.

CO2	K3	12a.	Write about the internal RAM of 8051. (OR)
CO2	K3	12b.	Prepare a chart on special function registers in 8051.
CO3	K4	13a.	Compare different addressing modes. (OR)
CO3	K4	13b.	Write a assembly language program for 8-bit multiplication.
CO4	K4	14a.	Evaluate a delay program with and example. (OR)
CO4	K4	14b.	Analyse the RS232 transmission and receiving of data with 8051.
CO5	K5	15a.	Explain the process of configuring 8255 PPI in different modes. (OR)
CO5	K5	15b.	Describe the process of interfacing 7 segment display.

Course Outcome	Bloom's K-level	Q. No.	SECTION – C (5 X 8 = 40 Marks) Answer <u>ALL</u> Questions choosing either (a) or (b)
CO1	K3	16a.	Define the architecture of 8085. (OR)
CO1	K3	16b.	What is read and write cycle? Explain with example.
CO2	K4	17a.	Compare Microprocessor with Microcontroller. (OR)
CO2	K4	17b.	Classify the instruction set in 8051.
CO3	K4	18a.	Comment your thoughts on the assembly language programming with a reference. (OR)
CO3	K4	18b.	Write a program for 1 second delay.
CO4	K5	19a.	Give your opinion on the timer and counter mode of operation. (OR)
CO4	K5	19b.	List the measures to be taken in serial RS232 communication.
CO5	K5	20a.	Assess the process of interfacing DC motor with 8051. (OR)
CO5	K5	20b.	Evaluate the keyboard interface methods in 8051.