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

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

UG DEGREE END SEMESTER EXAMINATIONS - APRIL 2025.
(For those admitted in June 2021 and later)

PROGRAMME AND BRANCH: B.Sc., ELECTRONICS

SEM	CATEGORY	COMPONENT	COURSE CODE	COURSE TITLE
V	PART - III	CORE	U21EL506	MICROPROCESSOR AND MICROCONTROLLER

Date & Session: 26.04.2025/AN **Time :3 hours** **Maximum: 75 Marks**

Course Outcome	Bloom's K-level	Q. No.	SECTION – A (10 X 1 = 10 Marks) Answer ALL Questions.
CO1	K1	1.	The main purpose of Accumulator register of 8085 is_____. a)Temporary data storage b) Storing Instructions c) Permanent data storage d) used primary pointer
CO1	K2	2.	How many flip-flops are there in a flag register of 8085 microprocessor? a) 4 b) 5 c) 6 d) 8
CO2	K1	3.	PIC stands for___. a) Process Interface Controller b) Process Interrupt Controller c) Programmable Interface Controller d) Programmable Interrupt Controller
CO2	K2	4.	USART stands for ___. a) Universal Synchronous Asynchronous Receiver Transmitter b) Universal Standard Analog Receiver Transmitter c) Universal Synchronous Analog Radiator Transmitter d) Universal Standard Asynchronous Radiator Transmitter
CO3	K1	5.	The 8051 microcontroller is of ___pin package as a _____ processor. a) 30, 1byte b) 20, 1 byte c) 40, 8 bit d) 40, 8 byte
CO3	K2	6.	For all of the arithmetic operations and logical instructions, _____ is used. a) Accumulator b) Multiplier c) Actuators d) Shifters
CO4	K1	7.	ORL operand performs logical ____ operations? a) AND b) OR c) EX-OR d) NOT
CO4	K2	8.	LCALL instruction takes. a) 2 bytes b) 4 bytes c) 3 bytes d) 1 byte
CO5	K1	9.	Assembly language is often termed as? a) Low-level language b) middle-level language c) High-level language d) very Low-level language
CO5	K2	10.	Which bit of the IE register is used to enable TxD/RxD interrupt? a) IE.D5 b) IE.D2 c) IE.D3 d) IE.D4

Course Outcome	Bloom's K-level	Q. No.	**SECTION – B (5 X 5 = 25 Marks)** **Answer ALL Questions choosing either (a) or (b)**
CO1	K3	11a.	Describe the Various Addressing modes in 8085. **(OR)**
CO1	K3	11b.	Illustrate the Difference between Memory Mapped I/O & I/O Mapped I/O.
CO2	K3	12a.	Analyse the Block diagram of Serial Communication Interface 8251. **(OR)**
CO2	K3	12b.	Examine about Digital to Analog Converter Interfacing.
CO3	K4	13a.	Distinguish between Microcontroller & Microprocessor. **(OR)**
CO3	K4	13b.	Describe the program counter & Stack pointer in 8051 Microcontroller.
CO4	K4	14a.	Analyse the Data Exchanges instruction of 8051 microcontrollers. **(OR)**
CO4	K4	14b.	Illustrate the Operations of Logical Byte & Bit level Instructions of 8051 microcontroller.
CO5	K5	15a.	Describe to Write an 8051 Assembly language program to find Addition & Multiplication of two numbers? **(OR)**
CO5	K5	15b.	Examine about Digital to Analog Converter Interfacing.

Course Outcome	Bloom's K-level	Q. No.	**SECTION – C (5 X 8 = 40 Marks)** **Answer ALL Questions choosing either (a) or (b)**
CO1	K3	16a.	Develop an Architecture of Microprocessor 8085 and explain each block. **(OR)**
CO1	K3	16b.	Examine about Following Instruction Sets of Microprocessor 8085 1) Data Transfer Instructions 2) Logical Instructions
CO2	K4	17a.	Sketch and analyze the block diagram of 8255 programmable peripheral interface and explain in detail. **(OR)**
CO2	K4	17b.	Construct the circuit to interface the Keyboard with Microcontroller 8051 and write a program for that?
CO3	K4	18a.	Sketch the Block Diagram of Microcontroller 8051 and Explain each block. **(OR)**
CO3	K4	18b.	Develop an Mode of operation in Timers of Microcontroller 8051 and explain with suitable diagrams.
CO4	K5	19a.	Illustrate the following instructions of Microcontroller 8051. 1) Rotate & Swap Operations 2) Jump & Call instructions **(OR)**
CO4	K5	19b.	Explain the Arithmetic Instructions and Interrupt & return Instructions of 8051microcontroller.
CO5	K5	20a.	Build an ALP for to find AND, OR & NOT Operations using 8051 instructions. **(OR)**
CO5	K5	20b.	Design a circuit to interface Digital to Analog Converter with 8051 and explain.