	PVKN Govt. College (Autonomous) Chittoor	Program II B.Sc. Electronics Minor			
Course Code 24-ELE-4C4	TITLE OF THE COURSE Course – 4: MICROPROCESSOR SYSTEM	Semester-IV			
Teaching	Hours Allocated: 45 Hrs (**Theory**) (**3 Hrs./wk.**)	L	T	P	C
Pre-requisites	Basic knowledge about Microprocessors	3	-	-	3

Syllabus:

UNIT -I: (12Hrs)
CPU ARCHITECTURE Introduction to Microprocessor, INTEL -8085(P) Architecture, CPU, ALU unit, Register organization, Address, data and control Buses. Pin configuration of 8085. Addressing modes.

UNIT -II: (12 Hrs)
8085 Instruction Set: Data transfer Instruction, Logical Instructions, Arithmetic Instructions, Branch

Instructions, Machine Control instructions.

UNIT -III: (12Hrs)
Assembly Language Programming using 8085, Programmes for Addition, Subtraction, Multiplication, Division, largest and smallest number in an array, **ascending and descending order** BCD to ASCII and ASCII to BCD.

UNIT -IV: (12Hrs)
8086 Microprocessor: Architecture, Pin description. Instruction format, Instruction Execution timing, Addressing modes, Basic 8086 Configurations – Minimum mode and Maximum Mode, Interrupt Priority Management I/O Interfaces: Serial Communication interfaces, Parallel Communication, ~~Programmable Timers, Keyboard and display~~, DMA controller

UNIT -V: (12Hrs) ARM PROCESSOR: Introduction to 16/32 bit processors, Arm Architecture & organization, Arm based MCUs, Programming model, Instruction set

Blue Print for The Question Paper Setting

S. No.	Type of Question	To be given in the Question Paper			To be answered		
		No. of Questions	Marks allotted to each question	Total Marks	No. of Questions	Marks allotted to each question	Total Marks
1	Section - A (Very Short Questions)	5	2	10	5	2	10
2	Section – B (Short Questions)	8	5	40	5	5	25
3	Section - C (Essay Questions)	6	10	60	4	10	40
		Total Marks		**110**	**Total Marks**		**75**

Chapter No.	Very Short Questions 2 Marks	Short Questions 5 Marks	Essay Questions 10 Marks	Marks allotted to the Chapter
UNIT –1	1	2	1	22
UNIT –2	1	2	1	22
UNIT - 3	1	0	2	22
UNIT –4	1	2	1	22
UNIT - 5	1	2	1	22
Total No. of Questions	5	8	6	110

	PVKN Govt. College (Autonomous) Chittoor	 II B.Sc. ELECTRONICS MINOR.
Course Code 24-ELE-4C4	TITLE OF THE COURSE4: Course – 4: MICROPROCESSORS SYSTEM	Semester-IV
Time: 3 hrs	MODEL QUESTION PAPER	Max Marks: 75

SECTION – A

Answer all the following very short questions. Each carry 2 marks   5 X 2 =10M

1. Define a microprocessor system.
2.. Write any two machine control instructions
3.. Write an ALP for addition of two 8- bit numbers
4.. Draw the pin diagram of 8086 microprocessor
5.. Define ARM processor.

SECTION – B

Answer any five of the following short questions. Each carry 5 marks   5 X 5 = 25M

6. Describe register organization
7. Describe the addressing modes of 8085 microprocessor.
8.. Explain any four of data transfer instructions.
9. Explain any four of branch instructions
10. Write an ALP to covert BCD to ASCII.
11. Write an ALP for division of two numbers.
12. Explain the instruction format of 8086 microprocessor.
11. Write a note on DMA controller.

SECTION – C

Answer any four of the following essay questions. Each carry 10 marks   4X10 =40 M

14. Explain the architecture of 8085 microprocessor.
15. Explain arithmetic and logic instructions.
16. Write an ALP to pickup largest number in a given array.
17. Explain the serial communication interface.
18. Explain ARM architecture.
19. Explain the instruction set of ARM processor.