PSG COLLEGE OF ARTS & SCIENCE

(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2023

(First Semester)

Branch- APPLIED ELECTRONICS

MICROCONTROLLER

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry **EQUAL** marks $(10 \times 1 = 10)$

ALL questions carry EQUAL marks (10 × 1 - 10)						
Module No.	Question No.	Question	K Level	СО		
1	1	a) Computer Instruction Set Compliment b) Complete Instruction Set Compliment c) Computer Indexed Set Components d) Complex Instruction set computer	K1	CO1		
	2	Computer architecture aimed at reducing the time of execution of instructions is a) CISC b) RISC c) ISA d) ANNA	K2	CO2		
2	3	Which of the following task swapping method is a better choice in the embedded systems design? a) time slice b) RMS c) cooperative multitasking d) pre-emptive	K1	CO1		
	4	Which type of memory is suitable for low volume production of embedded systems? a) Non-volatile b) RAM c) Volatile d) ROM	K2	CO2		
3	5	Which of the following bit/s of the status register that allows the microcontroller to operate in its low power mode? a) CPU off b) Z c) N d) Reserved	K1	CO1		
	6	Which of the following is the basic functions of a timer? a) it can control the compare, capture mode b) it provided a time delay c) it can act as a counter d) all of the mentioned	K2	CO2		
4	7	How many control lines are present in analog to digital converter in addition to reference voltage? a) Three b) Two c) One d) None of the mentioned	K1	CO1		
	8	Find out the integrating type analog to digital converter? a) Flash type converter b) Tracking converter c) Counter type converter d) Dual slope ADC	K2	CO2		
5	9	EPROM Programming versions are of greater significance to designers for	K1	CO1		

Cont...

22ELP104N/ 22ELP104 Cont...

 $(3 \times 10 = 30)$

ponent is replaced by an in-circuit emulator on	K2	CO2
b) I/O Ports		
ontroller IC d) All of the above		
1	ment board for testing purposes? b) I/O Ports	ment board for testing purposes? b) I/O Ports

SECTION - B (35 Marks)

Answer ALL questions

		ALL questions carry EQUAL Marks $(5 \times 7 = 3)$	5)	
Module No.	Question No.	Question	K Level	СО
1	11.a.	Explain about CISC.	K4	
		(OR)		COI
	11.b.	Discuss about PIC Programme memory.		
2	12.a.	Describe the function variable types.	K4	CO2
		(OR)		
	12.b.	State the function about pointer and arrays.		
3	13.a.	Explain the parallel slave port.	K5	CO3
		(OR)		
	13.b.	Draw with neat sketch watchdog timer.		
4	14.a.	Classify the function of interrupt operations.	K6	CO4
		(OR)		
	14.b.	Discuss the function about A/D Conversion.		
5	15.a.	Explain the advantages of 232 interface.	K5	CO5
		(OR)		
	15.b.	Justify the term I ² C Interface.		

SECTION -C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

Module No.	Question No.	Question	K Level	СО
1	16	Determine the operations RISC.	K5	CO1
2	17	Compare data operations and sequence control.	K4	CO2
3	18	Discuss the details about timers programming.	K6	CO3
4	19	Inspect a note on peripheral interrupts with neat Diagram.	K4	CO4
5	20	Explain the function DAC Interface.	K5	CO5

Z-Z-Z END