

8 BIT MICROCONTROLLERS

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Which among the below specified registers are addressable only from bank 1 of RFS? a) PORT A(05H) (b) PORT B(06H) c) FSR (04H) (d) ADCON0 (07H)	K1	CO1
	2	Which bit permits to enable (if set) or disable (if cleared) all the interrupts in an INTCON register? (a)GIE (b)ADIE (c) RBIE (d) TOIE	K2	CO1
2	3	How is the protection and security for an embedded system made? (a)Security chips (b)memory disk security (c) IPR (d) OTP	K1	CO2
	4	How embedded systems communicate with the outside world? a) Memory (b) output (c) peripherals (d) input	K2	CO2
3	5	Which of the following devices are specifically being used for converting serial to parallel and from parallel to serial respectively? (a)microcontroller (b) timers (c)counters (d)registers	K1	CO3
	6	What is the internal Vref of an Atmega 32 series? (a)3.3V (b) 2.56V (c) 5V (d) 4V	K2	CO3
4	7	Two wire interface is also called as ____ (a)UART (b)SPI (c)I2C (d) USART	K1	CO4
	8	How many types of addressing structures are there in I2C? (a)4 (b) 3 (c) 2 (d) 5	K2	CO4
5	9	All operating modes work under ____ kbits/s a) 11 (b) 100 (c) 15 (d) 150	K1	CO5
	10	What is the protocol used by USART? (a)RS232 (b) RS232C (c) RS485 (d) RS422	K2	CO5

Cont...

Answer ALL questions

ALL questions carry EQUAL Marks

(5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Discuss about the overview of PIC16F87XX.	K2	CO1
		(OR)		
	11.b.	Explain I/O ports of pic 16F87XX.		
2	12.a.	Illustrate the Structure of PIC16C with diagram.	K3	CO2
		(OR)		
	12.b.	Identify the Control statements used in PIC 16C and list it.		
3	13.a.	Examine about the functions of Timer 0.	K4	CO3
		(OR)		
	13.b.	Analyze about the Timers programming.		
4	14.a.	Explain in detail about the working of the USART.	K5	CO4
		(OR)		
	14.b.	Evaluate about the Special features of CPU.		
5	15.a.	Justify the importance of AVR register file.	K5	CO5
		(OR)		
	15.b.	Assess about the working of Bluetooth.		

SECTION -C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Define the-Instruction sets of PIC16F87XX.	K1	CO1
2	17	Identify the wage of pointers and arrays.	K3	CO2
3	18	Examine the operation of CCP Modules.	K4	CO3
4	19	Explain the working of Comparator module.	K5	CO4
5	20	Elaborate about the CAN using MCP2515.	K6	CO5

Z-Z-Z END