Hall Ticket Number :										

R-17

Code: 7G16D

III B.Tech. II Semester Supplementary Examinations May/June 2024

Object Oriented Programming Concepts

(Common to EEE & ECE)

Max. Marks: 70 Time: 3 Hours

Answer *any five full questions* by choosing one question from each unit (5x14 = 70 Marks)

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UNIT–I

1. a) Write short note on destructor. Explain with suitable example. 7M

   b) Explain merits and demerits of Object Oriented methodology. 7M

OR

2. a) Compare Object based programming and Object Oriented Programming. Explain how data and functions are organized in OOP. 7M

   b) Write the differences between pointers and arrays. 7M

UNIT–II

3. a) When do you use virtual base class? Explain with suitable example. 6M

   b) Explain function overloading and operator overloading with examples. 8M

OR

4. a) Explain operator overloading with the implementation of complex numbers. 7M

   b) Illustrate runtime polymorphism using virtual functions. 7M

UNIT–III

5. Explain the following string handlings with suitable example.
   i. String length ii. Character Extraction iii. String comparison 14M

OR

6. a) How to assign the values to the variables in the class during the time of creation of an object to that class? Explain with an example. 7M

   b) Write a java program for checking Armstrong number. 7M

UNIT–IV

7. a) Write an example program to create threads using Thread class. 7M

   b) Write a program to explain the process of accessing interface variables. 7M

OR

8. a) What is multithreading and what are the advantages of multithreading? 7M

   b) Explain Creating Packages and Accessing a Package with examples. 7M

UNIT–V

9. a) List the types of byte & character streams in java. Explain any two byte streams & two character streams with a suitable example. 8M

   b) Write a simple applet program to display a string “I LIKE IPL MATCHES”. 6M

OR

10. a) Discuss the Life Cycle of a Thread using a state transition diagram. 7M

    b) Demonstrate the creation of an applet using an example program 7M

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Hall Ticket Number :										

R-17

Code: 7G262

III B.Tech. II Semester Supplementary Examinations May/June 2024

Microprocessors and Microcontrollers

(Electrical and Electronics Engineering)

Max. Marks: 70 Time: 3 Hours

Answer *any five full questions* by choosing one question from each unit (5x14 = 70 Marks)

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			Marks	CO	BL
		UNIT–I			
1.		Explain the instruction set of 8086 microprocessors with suitable examples.	14M	CO1	L2
		OR			
2.	a)	Explain various Addressing modes of 8086 microprocessor.	7M	CO1	L2
	b)	Write an 8086 ALP to find the sum of numbers in the array of 10 elements.	7M	CO1	L3
		UNIT–II			
3.	a)	Illustrate the D/A converter interfacing with 8086 µP	7M	CO2	L2
	b)	Interface DAC AD7523 with an 8086 CPU running at 8 MHz and write an assembly language program to generate a sawtooth waveform of period 1ms with V_{max} 5V .	7M	CO2	L4
		OR			
4.	a)	Discuss the following methods of data transfers (i) Polling (ii) Interrupt driven	7M	CO2	L2
	b)	The DMA controlled data transfers are faster than the polling and Interrupt driven data transfers". Justify	7M	CO2	L1
		UNIT–III			
5.	a)	Explain the pin structure of RS232C and discuss about voltage and current specifications of RS232C.	7M	CO3	L2
	b)	Write an assembly language program to initialize 8251 and transmit and receive 100 bytes of data.	7M	CO3	L3
		OR			
6.		Explain 8251 UART Architecture and it's functionality.	14M	CO3	L2
		UNIT–IV			
7.	a)	With a diagram list the specific features of 8051	7M	CO4	L3
	b)	Write an ALP to find square root of a numbers and store the result in R0	7M	CO4	L4
		OR			
8.	a)	Explain the bit contents of IE and IP registers.	7M	CO4	L2
	b)	Write an assembly language program to find the largest element from given array of data.	7M	CO4	L4
		UNIT–V			
9.	a)	Briefly explain about different data operations used in ARM processor.	7M	CO5	L1
	b)	Explain the versions of ARM. Discuss ARM7 TDMI Features.	7M	CO5	L2
		OR			
10.	a)	What are the advantages of arduino controller	7M	CO5	L1
	b)	Write the addressing modes of ARM microcontrollers.	7M	CO5	L1

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