| PRN No. | | PAPER CODE | U114- 373(Backlo |

December 2024 (BACKLOGEXAM)

F.Y.B.TECH (SEMESTER - I) CSE(IoTCSBT)

COURSE NAME: CRITICAL THINKING,   COURSE CODE:
PROBLEM SOLVING AND   CI11236
PROGRAMMING

(PATTERN 2023)

Time: [2 Hrs]   [Max. Marks: 60]

(*) Instructions to candidates:
  1) **Use of scientific calculator is allowed**
  2) **Use suitable data where ever required**
  3) **All questions are compulsory. Solve any THREE sub questions from EACH question**

Q. No.	Question Description	Max. Marks	CO mapped	BT Level
Q.1	**Solve any three sub questions from the following.**			
	a) Recall the importance of the critical thinking standards.	[5]	CO1	1
	b) Analyse how critical thinking affects the process of making decisions.	[5]	CO1	4
	b) Describe the steps in the critical thinking process.	[5]	CO1	2
	d) Recognise the differences between critical and creative thinking.	[5]	CO1	3
Q2	**Solve any three sub questions from the following.**			
	a) What are the essential steps in the engineering problem-solving process?	[5]	CO2	1
	b) Identify and describe the differences between local and global variables.	[5]	CO2	2
	c) Provide an appropriate example to illustrate "Call by Value."	[5]	CO2	3
	d) Apply recursion to the Fibonacci series.	[5]	CO2	3
Q3.	**Solve any three sub questions from the following.**			

	a) Can you describe the **for** and **while** loops used in C++? Provide examples.	[5]	CO3	1
	b) Apply function overloading in a C++ program to showcase its advantages.	[5]	CO3	3
	c) Assess the significance of decision control structure (**If..else**) in C++ programming.	[5]	CO3	4
	d) Create a class in C++ that demonstrates the basics of console input and output.	[5]	CO3	3
Q.4	**Solve any three sub questions from the following.**			
	a) Design Student Class and create 3 objects.	[5]	CO4	1
	b) Summarise importance of a class's constructors and destructors.	[5]	CO4	2
	c) Describe the concept of C++ friend functions.	[5]	CO4	2
	d) Examine and contrast the various C++ inheritance types.	[5]	CO4	3

Note-[BT level 1. Remember 2. Understand 3. Apply 4 Analyze 5. Evaluate 6. Create]