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MID TERM EXAMINATIONS – November 2024

Programme	: B.Tech.	Semester	: Interim Semester 2024-25
Course Title	: Introduction to Problem Solving and Programming	Course Code	: CSE1021
Date/Session	: 6 Nov 2024/Session II	Slot	: B21+E14+E22
Time	: 1 ½ hours	Max. Marks	: 50

Answer all the Questions

Q.No.	Sub. Sec.	Question Description	Marks
1		Draw a flowchart to simulate a simple banking system where a user can either deposit or withdraw money. Ensure that the balance cannot be negative.	10
2		What is the time complexity of linear search and binary search? Explain with example, why is binary search more efficient?	10
3	a.	Evaluate the expression $75 - 5 ** 2 + 3 * 2 ** 4 // 2$ and explain how precedence and associativity affect the result.	5
	b.	Write a Python program to check the number is even or odd by using bitwise operators.	5
4	a.	Write a Python program to find the 2 nd largest digit of a number. Example: if the number is 4798, the output should be 8.	5
	b.	Write a Python program that prints all numbers between 1 and 300 in reverse order, which are divisible by both 2 and 3 but not divisible by 5.	5
5		Write a Python program to print the following picture.	10

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