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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2026

B.Tech-I Semester (BCA)

COURSE CODE (CREDITS): 25BC1CI112 (4) MAX. MARKS: 15

COURSE NAME: PROBLEM SOLVING TECHNIQUE USING C

COURSE INSTRUCTOR: RVS MAX. TIME: 1 Hour

Note: *(a) All questions are compulsory.*

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

(c) Use of calculator is not allowed

Q.No	Question	CO	Marks
Q1	a) Convert the fractional decimal number $(27.625)_{10}$ into Octal. b) Convert the fractional hexadecimal number $(3A.8)_{16}$ directly into Binary and then into Octal form.	1	1.5*2=3
Q2	Draw a flowchart and algorithm to find and display the largest among three distinct numbers (num1, num2, and num3) using selection statements.	1	3

Q3	//Predict the Output:
	#include <stdio.h>
	int main()
	{
	int a = 4, b = 7, c = 2;
	int x = (c << 2) / (b % 4);
	switch (x % 5)
	{
	case 1:
	case 2: a += 3;
	case 3: b -= 2; break;
	default: a = x; break;
	}
	printf("a=%d, b=%d, x=%d\n", a, b, x);
	return 0;
	}
		2	3

Q4	a) The operator used to find the remainder after integer division is _____. b) The _____ loop executes its body at least once, even if the condition is false initially. c) The _____ statement is used to select one option from multiple alternatives based on the value of an expression.	1	3
Q5	Write a C program using a for loop to accept marks of 5 subjects and calculate their total.	2	3

UNDER EXAMINATION - DEC-2026

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