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CAMBRIDGE INSTITUTE OF TECHNOLOGY

K.R. PURAM, BENGALURU-560036

Department of Basic Sciences

First Internal Assessment - Even Semester 2018-19

Sub. Name: C Programming for Problem Solving **Sub. Code**: 18CPS23 **Semester**: II

Date: 01-04-2019 **Time**: 2:30 PM **Duration**: 90 Minutes **Max. Marks**: 30

[Instructions: Answer any two full questions as indicated below]

Sl. No.	QUESTIONS	COs	RBT Levels	Marks
1.	a) List the rules of valid identifier in C language. Choose the invalid names from the following: i) for ii) #12 iii) help+me.	CO1	L1	03M
	b) What is a token in C? Explain the different types of tokens available in C language.	CO1	L2	04M
	c) Explain each of the following in detail: i) Ports and connectors ii) Input and output devices.	CO1	L2	08M
	OR			
2.	a) What are keywords and identifiers in C? Give example for each.	CO1	L1	03M
	b) Show the evaluation of the following C expressions: i) 10 != 10 || 5 < 4 && 8 ii) X = a – b / 3 + c * 2 - 1 when a = 9, b = 12, c = 3	CO1	L2	04M
	c) Explain the following operators with an example: i) Increment and Decrement ii) Conditional iii) Assignment iv) Logical operators.	CO1	L2	08M
3.	a) What is a statement in C language? List the different types of branching statements.	CO2	L1	02M
	b) Explain the following branching statements with syntax and example program for each: i) simple if ii) else-if ladder.	CO2	L2	06M

	c) An electricity board charges the following rates for the use of electricity: for the first 200 units 80 paise per unit, for next 100 units 90 paise per unit, beyond 300 units Rs.1 per unit. All users are charged a minimum of Rs.100 as meter charge. If the total amount is more than Rs.400, then an additional surcharge of 15% of total amount is charged. Write a program to read the name of the user, number of units consumed and print the amount to be paid by the customer.	CO2	L3	07M
	OR			
4.	a) What is meant by iterative statement?	CO2	L1	02M
	b) Explain switch statement with syntax and example.	CO2	L2	06M
	c) Write a C program to compute the roots of a quadratic equation by accepting the coefficients.	CO2	L3	07M

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