Academic year 2022-2023 (Odd Sem)

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

Date	Jan 2023	Maximum Marks	60
Course Code	22PLC15D	Duration	120 Min
Sem	I	CIE - I	

PROGRAMMING LANGUAGE COURSE
(Introduction to C++ Programming)

SL No.	Quiz Questions	M	BT	CO
1	Identify any two attributes and methods for the real world object: "CAR"	2	L3	CO1

2	main()
	{
	int i = 4;
	int x = 6;
	double z;
	z = x / i;
	printf("z=%.12lf\n", z);
	}
	Write the output of the above code segment.
		2	L4	CO2

3	'volatile' type qualifier could be used to tell explicitly the compiler that _____ .	1	L1	CO2

4	Write the output of following code?
	#include<stdio.h>
	main( )
	{
	int x=-1,y=-1;
	if(x==++y)
	printf("C V Raman");
	else
	printf("Amartya Sen");
	}
		2	L4	CO2

5	Differentiate between C and C++ with any two differences.	2	L2	CO3
6	Encapsulation is the mechanism that binds together _____ and the _____ it manipulates.	1	L1	CO3

SL No.	Test Questions	M	BT	CO
1	Explain four main classifications of operators with examples.	10	L2	CO3
2	Explain the need for array variables. Elaborate on declaration and access of single dimensional array and two dimensional array elements with examples.	10	L2	CO2
3.a	Explain any two Iteration statements with their syntax and example.	6	L2	CO2

3.b	Identify the use of functions in C++ programming language and differentiate between call by value and call by reference ways of passing arguments.	4	L2	CO1
4.	Explain the following conditional compilation directives. #if, #elif, #ifdef, #ifndef, #else	10	L2	CO1
5.	Design a C++ program by creating a class for student to track marks secured by each student in six courses. i) Include member functions to accept data for each student and display data of each student. ii) Calculate average marks of each course and display	10	L3	CO2

BT-Blooms Taxonomy, CO-Course Outcomes, M-Marks

Marks Distribution	Particulars		CO1	CO2	CO3	CO4	L1	L2	L3	L4	L5	L6
	Test	Max Marks	10	36	14	--	2	40	10	8	--	--

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RVCE22BCO01

Academic year 2022-2023 (Odd Sem)

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

Date	Feb 2023	Maximum Marks	10+50
Course Code	22PLC15D	Duration	120 Min
Sem	I	QUIZ-II & Test-II	
Introduction to C++ Programming			

Sl. No.	QUIZ Questions – PART - A	M	BT	CO
1.	Write the differences between C++ class and C++ structure	02	L2	CO2
2.	Which other keywords are also used to declare the class other than class?	01	L1	CO2

3.	What is the output of the following program?
	#include<iostream>
	using namespace std;
	class Test
	{
	int x;
	};
	int main()
	{
	Test t;
	cout << t.x;
	return 0;
	}
		02	L3	CO2

4.	Write any 2 points on how constructors are different from other member functions of the class?	02	L2	CO1
5.	What is the significance of Friend Function in C++?	01	L1	CO1

6.	What is the output of the following program?
	#include <iostream>
	using namespace std;
	class Sample {
	static int A;
	public:
	Sample()
	{
	A = 10;
	}
	void print()
	{
	cout << A << endl;
	}
	};
		02	L3	CO2

```
{
   Sample S;
   S.print();

   return 0;
}
```

Test Questions - PART - B

1 a.	Describe the structure of class declaration and class definition through example program.	10	L2	CO3
2a.	Explain the relation between Structures, Unions and Classes.	06	L2	CO2
2b	Bring out the advantages of using friend functions with relevant examples.	04	L2	CO2
3	Differentiate between inline functions and inline functions within a class through examples.	10	L2	CO2
4a.	Briefly explain the passing and returning objects in C++ functions with examples.	06	L2	CO2
4b.	Differentiate between constructors and destructors with examples.	04	L2	CO2
5.	Design a C++ program using friend functions for comparing attributes of two different classes to check whether attributes of both classes are equal.	10	L3	CO2

BT-Blooms Taxonomy, CO-Course Outcomes, M-Marks

Particulars		CO1	CO2	CO3	CO4	L1	L2	L3	L4	L5	L6
Marks Distribution	Test Max Marks	-	40	10	-	-	40	10	-	-	-
	Quiz Max Marks	03	07	-	-	02	04	04	-	-	-

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Academic year 2022-2023 (Odd Sem)

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

Date	Mar 2023	Maximum Marks	10+50
Course Code	22PLC15D	Duration	120 Min
Sem	I	QUIZ-III& Test-III	
Introduction to C++ Programming			

Sl. No.	QUIZ Questions – PART - A	M	BT	CO
1.	Define polymorphism along with its syntax representation.	02	L1	CO3
2.	Write the syntax for publicly derived class B from class A.	02	L2	CO3
3.	What is the importance of inheritance in C++.	02	L1	CO3
4.	Write the syntax for creating a virtual function to implement polymorphism	02	L1	CO3
5.	Can the private functions in the base class be inherited by the derived class? Justify the answer.	02	L2	CO3
	Test Questions - PART - B			
1	Discuss the advantages of inheritance in Object Oriented Programming and explain the different types of inheritance with pictorial representations and examples.	10	L2	CO3
2a.	Explain about the protected access mode in the derived class.	06	L2	CO3
2b	Discuss in brief about compile time and run time polymorphism.	04	L2	CO3
3	Design and implement a C++ program to create an abstract class - SHAPE to represent any shape in general. The class should have two pure virtual functions to read dimensions and to compute the area. Create three derived classes - CIRCLE, RECTANGLE, and SQUARE by inheriting the features of class SHAPE. Implement the functions to read and compute the area.	10	L3	CO3
4a.	Explain the concept of function overloading with its syntax and examples.	06	L2	CO3
4b	Examine the importance of default arguments in C++ programming.	04	L2	CO3
5.	Explain the following concepts with examples. a.Virtual Functions b.Abstract Classes.	10	L2	CO3

BT-Blooms Taxonomy, CO-Course Outcomes, M-Marks

	Particulars		CO1	CO2	CO3	CO4	L1	L2	L3	L4	L5	L6
Marks Distribution	Test	Max Marks	-	-	50	-	-	40	10	-	-	-
	Quiz	Max Marks	-	-	-	-	6	4	-	-	-	-

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