

DEPARTMENT OF DATA SCIENCES AND INTELLIGENT SYSTEMS
INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DHARWAD

MID SEMESTER EXAMINATION, OCTOBER 2021

CS207: OBJECT ORIENTED PROGRAMMING

Class: III SEM B. TECH (DSIS)

Date: 06 / 10 / 2021

Time: 1 Hour.

Marks: 40

Register No.

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NOTE: 1. Answer All Questions to the point.

2. Give suitable examples wherever necessary.

3. Make reasonable assumptions and state them.

Q. No.	Questions	Marks	BT
Q1.	(a) State and explain Any Four different types of Inheritance in C++. Demonstrate them by providing the diagram and C++ code for each type of inheritance.	[8]	L1 L2 L3
	(b) Discuss four differences between top-down and bottom-up approaches in programming.	[2]	L2
Q2.	(a) Explain the rules of method overriding in Java and distinguish between method overloading and method overriding.	[6]	L2 L4
	(b) Analyze the different access modifiers in Java with examples.	[4]	L4
Q3.	(a) Create the “bank” class with following properties: (i) first name, last name, address and contact number as private member variables. (ii) member function to assign the values read from the user to the respective member variables of “bank” class. (iii) create a derived class “Account” consisting of account type, account number and deposit as the member variables.	[6]	L5 L6

	<p>(iv) member function to assign the values read from user to the respective member variables of “Account” class.</p> <p>(v) member function to display all the variables</p> <p>Evaluate the class by writing the C++ program with creation of two “Account” objects. Overload the “+” operator to display the total amount deposited.</p> <p>(b) Summarize the characteristics of Object-Oriented Programming and relate them in the above program of 3(a).</p>	4	L2 L5
Q4.	Create different types of constructors and destructors by showing the C++ code. Summarize the need for user-defined destructors	10	L3

BT: The levels of Bloom’s Taxonomy (BT): L1: Knowledge, L2: Understand, L3: Apply, L4: Analyze, L5: Evaluate and L6: Create.

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