	DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE		
	End Semester Examination – Summer Supplementary 2023		
	Course: B. Tech. Branch : Computer Engg. Second Year Semester :III		
	Subject Code & Name: BTCOC305A & Object Oriented Programming in C++		
	Max Marks: 60 Date:18/8/2023 Duration: 3.00 Hr.		

Instructions to the Students:
1. *All the questions are compulsory.*
2. *The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in ( ) in front of the question.*
3. *Use of non-programmable scientific calculators is allowed.*
4. *Assume suitable data wherever necessary and mention it clearly.*

		(Level/CO)	Marks
Q. 1	**Solve Any Two of the following.**		
A)	Explain in brief about the benefits of object oriented programming over procedure oriented programming	(Understand)	**6**
B)	Explain types of program flow statements in C++?	(Application)	**6**
C)	What are classes? Create a class with the following data members? Name of the class: student, Data members: name, roll number, branch, year, and college name, Member functions: put details() and get details() to set and Display student details respectively?	(Application)	**6**
Q.2	**Solve Any Two of the following.**		
A)	What is constructor? Differentiate among constructors, default constructors and copy constructors?	(Analysis)	**6**
B)	How will you destroy the objects initialized by the constructor in the program?	(Application)	**6**
C)	Define Inheritance. Explain different types of Inheritance	(Understand)	**6**
Q. 3	**Solve Any Two of the following.**		
A)	With an example explain how late binding can be achieved in C++.	(Application)	**6**
B)	Write a program to Operator Overloading.	(Application)	**6**
C)	What is multi-level inheritance? Explain with an example, how it can be implemented in C++.	(Application)	**6**
Q.4	**Solve Any Two of the following.**		
A)	Write a C++ program that reads a file and writes to another file after converting every character into upper case letter.	(Application)	**6**
B)	Write a manipulators in C++ with the help of example.	(Application)	**6**
C)	What is sequential and random access to file in C++?	(Application)	**6**
Q. 5	**Solve Any Two of the following.**		
A)	What is generic programming? Explain in detail about class templates?	(Unerstand)	**6**

B)	Differentiate between class templates and function templates.	(Application)	**6**
C)	Explain the exception handling mechanism in C++?	(Application)	**6**
	*** End ***		

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