Course Code: 1930514 Roll No: MLRS- R19

MARRI LAXMAN REDDY
INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(AN AUTONOMOUS INSTITUTION)
(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)
Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section2(f) & 12(B)of the UGC act,1956

II B.Tech I Sem Regular End Examination, March 2021
OBJECT ORIENTED PROGRAMMING USING C++
(CSE & IT)

Time: 3 Hours. **Max. Marks: 70**

Note: 1. Answer any FIVE questions.
2. Each question carries 14 marks and may have a, b as sub questions.

1	a)	Differentiate between Procedure Oriented Programming and Object Oriented Programming.	7M	CO	BL
	b)	Develop a C++ program to display a decimal number in a reverse order (Ex: if a number 1234, expected output is 4321).	7M	CO	BL
2	a)	Explain various types of loops used in C++ with suitable example.	7M	CO	BL
	b)	Define a structure that represents Fruit with properties fruit name, fruit type, fruit color. Write a program that accepts data of four fruits and displays the results.	7M	CO	BL
3	a)	Define a class named 'Train' representing following members: Data members : - Train Number - Train Name - source -destination -journey date -capacity Member functions: - input train data and initialize members - Display data Write a C++ program to test the train class.	7M	CO	BL
	b)	What is the use of static class members? Explain the same with program.	7M	CO	BL
4	a)	How is polymorphism achieved at compile time and run time in C++? Explain with example code.	7M	CO	BL
	b)	Define abstract class. How it is different from class? Explain usage of abstract class with example.	7M	CO	BL

5	a)	A program uses a function named convert() in addition to its main function. The function main() declares the variable x within its body and the function convert declares two variables y and z within its body, z is made static. A fourth variable m is declared ahead (i.e, at top) of both the functions. State the visibility and lifetime of each of these variables.	7M	CO	BL
	b)	Demonstrate hybrid inheritance with the help of suitable example.	7M	CO	BL
6	a)	Draw hierarchy of stream classes for file operations. Explain when do we use and functions defined each class in hierarchy.	7M	CO	BL
	b)	Develop a C++ program to overload '-' operator to subtract two complex numbers.	7M	CO	BL
7	a)	Develop a C++ program to write a student objects (3) to a file, read the same from file and display the student details on screen (Note: use write() and read() functions).	7M	CO	BL
	b)	Define exception specification. Why do we require this in exception handling? Explain with example program	7M	CO	BL
8	a)	Describe the execution flow of statements in a C++ program when exception handling is implemented.	7M	CO	BL
	b)	Develop a C++ program to rise an exception when user tries to draw below minimum balance from bank account (Assume minimum balance as 1000 rupees and data members required).	7M	CO	BL

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