

CMR TECHNICAL CAMPUS

UGC AUTONOMOUS

B. Tech. III Semester Supply End Examinations, August-2023

Object Oriented Programming using C++

Common to CSE & IT

Time: 3 Hours

Max. Marks: 70

Note

- i. This Question paper contains Part- A and Part- B.
- ii. All the Questions in Part A are to be answered compulsorily.
- iii. All Questions from Part B are to be answered with internal choice among them.

PART-A

10 X 02 = 20 Marks

| | Marks | CO | BL |
|---|-------|-----|----|
| 1. a What is an Object | 2 | CO1 | L1 |
| b Draw a structure of C++ program | 2 | CO1 | L2 |
| c Define a Class? | 2 | CO2 | L2 |
| d What is Static class? | 2 | CO2 | L1 |
| e Explain Virtual Function? | 2 | CO3 | L2 |
| f Importance on Inheritance? | 2 | CO3 | L2 |
| g How do you open files in C++ | 2 | CO4 | L2 |
| h Bring out file Input Output Header files? | 2 | CO4 | L1 |
| i Distinguish between Error and Exception? | 2 | CO5 | L2 |
| j Sketch the diagram to show exception handling model in C++. | 2 | CO5 | L2 |

PART- B

5 X 10 = 50 Marks

| | Marks | CO | BL |
|--|-------|-----|----|
| 2. a Discuss the Object-Oriented Program Paradigms with suitable Examples? | 6 | CO1 | L4 |
| b Write a C++ program on type casting conversion with examples | 4 | CO1 | L5 |
| OR | | | |
| 3 a Develop a C++ program on student data StudId, SName, SMarks of 4 subjects and display the same | 10 | CO1 | L6 |
| 4 a What is polymorphism and types of Polymorphism? Explain any one polymorphism with suitable C++ program | 10 | CO2 | L5 |

OR

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|----|---|---|----|-----|----|
| 5 | a | Is what way abstract class achieved? Explain their use with the help of C++ program? | 5 | CO2 | L4 |
| | b | Short note on i) this pointer ii) Friend Function | 5 | CO2 | L4 |
| 6 | a | Clarify the following terms in the context of object-oriented programming. Also explain how these concepts are implemented in C++ by giving an example program for each. (a)Benefits of Data Abstraction (b)Encapsulation (c)Virtual base class and when do we make it. (d) Polymorphism and its types. | 10 | CO3 | L5 |
| OR | | | | | |
| 7 | a | Describe the concept of default constructor, copy constructor and parameterized constructor with the help of suitable C++ program | | CO3 | |
| 8 | a | Write a program to create a file emp. data with employee number, name, deduction, and allowances as record fields. open a file, read a record, calculate the salary, and write back to the same file. | 10 | CO4 | L6 |
| OR | | | | | |
| 9 | a | Differentiate between formatted and unformatted I/O. Discuss its different functions | 5 | CO4 | L3 |
| | b | Explain the role of seekg(),seekp(),tellg(),tellp(),function in the process of random access in a file. | 5 | CO4 | L3 |
| 10 | a | Define an exception? Explain how exceptions are handled in C++, with the help of an example program. When do we used multiple catch handlers? | 10 | CO5 | L5 |
| OR | | | | | |
| 11 | a | Discuss the benefits of exception handling and explain with suitable example | 5 | CO5 | L4 |
| | b | Describe on i) try ii)catch iii) throw | 5 | CO5 | L3 |

CO : Course Outcomes

BL : Bloom's Taxonomy Levels

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|-------------------|---------------------|
| L 1 : Remembering | L 2 : Understanding |
| L 3 : Applying | L 4 : Analysing |
| L 5 : Evaluating | L 6 : Creating |
