

**R18**

Code No: 153BK

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech II Year I Semester Examinations, September/October - 2023

**OBJECT ORIENTED PROGRAMMING USING C++**

(Common to CSE, IT, ECM)

Time: 3 Hours

Max. Marks: 75

**Note:** i) Question paper consists of Part A, Part B.

ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.

iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

**PART – A**

**(25 Marks)**

- 1.a) What is a Pointer? Give one example. [2]
- b) Write about break and continue statements. [3]
- c) What is “this” pointer? Explain. [2]
- d) What is the importance of friend class? [3]
- e) What is Virtual Destructor? [2]
- f) Explain Pure Virtual function. [3]
- g) What is error handling? [2]
- h) What is formatted I/O? [3]
- i) What is the principle of exception handling in C++? [2]
- j) How many types of exceptions are there in C++? [3]

**PART – B**

**(50 Marks)**

- 2.a) Explain flow control statements if and switch.
- b) Write a C ++ code to create a Calculator using the switch statement. [5+5]

**OR**

- 3.a) Explain Dynamic allocation and De-allocation operators in C++.
- b) Explain various types of operators in C++. [5+5]

4. What are access modifiers in C++? Explain different types of access modifiers in C++. Write a C++ program to illustrate all access modifiers. [10]

**OR**

- 5.a) Explain the Static and Constant member functions with an example.
- b) Explain various types of Constructors in C++. [5+5]

6. Explain different forms of Inheritance. Write C++ code for illustrating any two forms of inheritance using Shape as a base class. [10]

**OR**

7. What is Static Binding? How do you implement it in C++? Write a C++ program to illustrate it. [10]

QA

QA

QA

QA

QA

QA

QA

QA

8.a) Explain operator overloading in C++.

b) Write a C++ program for “++” operator overloading.

[5+5]

QA

QA

QA

QA

QA

QA

QA

QA

9. What is String stream? How do you create a String stream in C++? Explain in detail.

[10]

10. Explain exception handling using throw and throws in detail. Write a C++ code to illustrate it.

[10]

OR

11. Explain handling exceptions using try and catch block in detail. Write a C++ code to handle Arithmetic exception.

[10]

QA

QA

QA

QA

QA

QA

QA

QA

---ooOoo---

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA