(T) Roll No. .....

PAPER ID—15911

Bachelor of Technology

EXAMINATION, 2025

(Third Semester)

Btech-2023-358

PROGRAMMING WITH C++

Time : 3 Hours *Maximum Marks : 70*

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt all questions.

1. (a) Define Encapsulation. **2**

   (b) Define ADT. **2**

(c) What are the characteristics of constructor ? 2

(d) What are the applications of C++ ? 2

(e) What are Objects ? 2

(f) List the types of polymorphism. 2

(g) Define Data hiding. 2

2. Define Object-oriented programming and Explain feature of Object Oriented programming. How is it different than procedure Oriented programming ? **14**

3. Explain the basic C++ program syntax with an example. **14**

4. What are abstract classes ? Where are they useful ? Discuss with an example. **14**

5. With an example program for each discuss :

(i) Constructors with default arguments 7

(ii) Copy constructors 7

6. Describe the importance of destructor. Explain its use with a program. **14**

7. What does inheritance mean in C++ ? What are different forms of inheritance ? Give an example of each. **14**

8. (a) What is a virtual function ? Write rules for virtual function. Explain with example. 7

(b) Explain function overloading with example. 7

9. (a) Write a program in C++ to check whether the given no is prime or not. 7

(b) Explain Generic functions and Generic class. 7

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