

Please check that this question paper contains 09 questions and 02 printed pages within first ten

[Total No. of Questions: 09]

[Total No. of Pages: .02.]

Uni. Roll No.

MORNING

Program: B.Tech. (Batch 2018 onward)

Semester: 3rd

12 MAY 2023

Name of Subject: Object Oriented Programming using C++

Subject Code: PCIT-102

Paper ID: 16041

Scientific calculator is Allowed

Detail of allowed codes/charts/tables etc. NIL

Time Allowed: 03 Hours

Max. Marks: 60

NOTE:

- 1) Parts A and B are compulsory
- 2) Part-C has Two Questions Q8 and Q9. Both are compulsory, but with internal choice
- 3) Any missing data may be assumed appropriately

Part – A

[Marks: 02 each]

Q1.

- a) Compare object oriented programming with procedure oriented programming.
- b) Illustrate two string functions with the help of example (s).
- c) Discuss the role of constructor in a class in C++.
- d) Compare error and exception.
- e) Demonstrate the difference between while and do-while in C++.
- f) How templates are useful in generic programming?

Part – B

[Marks: 04 each]

- Q2.** What is the need of type conversion? Discuss different types of type conversion in C++.
- Q3.** Discuss the role of access specifiers in inheritance and their visibility when they are inherited as public, private and protected.
- Q4.** How compile time polymorphism is different from run-time polymorphism?
- Q5.** Write a program to demonstrate the use of the ternary operator in C++.
- Q6.** Write a program to swap two variables to show the use of call by value and call by reference.

Q7. Explain the role of try, throw and catch through a code segment of C++.

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Part – C

[Marks: 12 each]

Q8. Explain the working of various control flow statements in C++.

OR

Explain the process of reading and writing a file in C++.

Q9. Demonstrate the use of various formatted and unformatted I/O functions in C++.

OR

Develop a program to perform the addition of two complex numbers (use constructors, destructors, friend functions, objects as parameters, and return type of function as objects).
