

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

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[Total No. of Questions: 09]

[Total No. of Pages: 02]

Uni. Roll No.

04 JAN 2023

Program: **B.Tech. (Batch 2018 onward)**

Semester: **3rd**

Name of Subject: **Object Oriented Programming**

Subject Code: **PCCS-101**

Paper ID: **16010**

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 procedure-oriented programming with object-oriented programming.
- b) List the operators that can't be overloaded.
- c) How early binding is different from late binding?
- d) Distinguish between call by value and call by reference.
- e) Write a C++ program to illustrate the concept of function overriding.
- f) Simplify the concept of throwing and catching mechanism.

Part – B

[Marks: 04 each]

- Q2.** Illustrate the concept of dynamic memory management using new and delete operators.
- Q3.** Explain the concept of constructor along with its various types in detail.
- Q4.** How empty classes are different from nested classes? Explain with the help of suitable examples.
- Q5.** Distinguish between inline functions and friend functions.
- Q6.** Write a program to copy the contents of one file into another file.
- Q7.** Elaborate the concept of exception handling with the help of a program.

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04 JAN 2023

Part – C

[Marks: 12 each]

- Q8.** Explain the concept of inheritance and its types with the help of suitable examples.

OR

What do you understand by pointers? Identify various pointer related problems along with examples.

- Q9.** Classify and explain various features of object-oriented programming with the help of suitable examples.

OR

Write a C++ program that displays a decimal number in reverse order using loops and operators (e.g if number is 1234, output expected is 4321).
