

(i) Printed Pages : 2

Roll No.

(ii) Questions : 9

Sub. Code :

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Exam. Code :

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**Bachelor of Computer Application (FYUP) 2nd Semester
(2055)**

OBJECT ORIENTED PROGRAMMING USING C++

Paper : NBCA203

Time Allowed : Three Hours]

[Maximum Marks : 45

Note :— Attempt **ONE** question from each section and entire compulsory question. All questions carry equal marks.

SECTION—A

1. What is the primary reason to use abstraction in OOP ?
What does an object represent in the class ? Demonstrate with an example. 9
2. Write a note on :
 - (a) Advantages of 'new' operator
 - (b) Defining member functions. 9

SECTION—B

3. How does a constructor differ from an ordinary member function ? When is the copy constructor in C++ used ? 9
4. Using the concept of binary operator overloading, write a program to compare the area of squares using relational '>' and '<' operators. [Formula : Area of a Square = Side × Side]. 9

SECTION—C

5. What is the importance of inheritance ? How can one make a private member inheritable ? Describe the problem that may arise in multiple inheritance. 9
6. How does polymorphism promote extensibility ? Can a pointer of base class type point to object of derived class ? Demonstrate. 9

SECTION—D

7. Give common examples of exceptions. Why should we deal with them ? What happens when a catch handler throws an exception ? 9
8. Describe the classes for file stream operations. Why do we need binary files ? 9

(Compulsory Question)

9. Answer the following :
 - (a) What are the advantages of late binding ? 2
 - (b) Why is inline function faster ? 2
 - (c) Write the benefits of function overloading. 2
 - (d) List the rules for defining friend functions. 2
 - (e) What is file opening mode ? 1