[5954]-402

S.Y. B.B.A. (Computer Application)
CA - 402 : OBJECT ORIENTED CONCEPTS THROUGH CPP
(2019 Pattern) (Semester - IV)

Time : 2½ Hours]   *[Max. Marks : 70*
Instructions to the candidates:
1) *All questions are compulsory.*
2) *Figures to the right indicate full marks.*

Q1) Attempt any EIGHT of the following (out of TEN).   **[2×8=16]**

   a)   What is Encapsulation?

   b)   Define the following terms

   i)   Early Binding

   ii)   Late Binding

   c)   What is Inline function?

   d)   Explain get() and put () function.

   e)   What is stream?

   f)   Define Friend function.

   g)   Explain the use of new opreator, state the syntax.

   h)   State the need of virtual keyword.

   i)   State user defined data types in C++.

   j)   Explain the use of Scope Resolution operator.

Q2) Attempt any FOUR of the following (out of FIVE).   **[4×4=16]**

   a)   List different types of constructor. Explain any one constructor with example.

   b)   What is function overloading? Explain with suitable example.

   c)   Describe different types of inheritance.

   d)   Explain virtual base class with suitable diagram.

   e)   Describe file manipulators with their syntaxes.

P.T.O.

Q3) Attempt any FOUR of the following (out of FIVE). [4×4=16]

    a) Write a C++ program to copy contents of one file to another file.

    b) Write a program to calculate area and circumference of a circle using inline function.

    c) Declare a class of vehicle. Derived classes are two whecler, three wheeler and four wheeler. Display the properties of each type of vehicle using member functions of class.

    d) Write a C++ program to use setfile ( ) and setiosflags ( ) manipulator.

    e) Write a C++ program to compare two strings using overload operater "==".

Q4) Attempt any FOUR of the following (out of FIVE). [4×4=16]

    a) Trace the output of the following program and explain it. Assume there is no syntax error.

```
# include <iostream.h>
 int i, j;
 Class sample
 {
 Public:
    Sample (int a = 0, int b = 0)
    {
        i = a;
        j = b;
        show ( );
    }
    Void show ()
    {
    Cout <<j <<" ";
    }
 };
 Void main ( )
 {
        Sample (5, 10);
        Int & x = i;
        int & y = j;

        i++;

    Cout << x - - << " " << ++y;

    }
```

b) Explain try, catch and throw in exception handling.

c) Design C++ class which contain function display ( ). Write a program to count number of times display ( ) function is called (Use static data member)

d) What is Destructor? State the importance of destructor with example.

e) What is tokens in C++? Explain in detail.

Q5) Write a short note on any TWO of the following (out of THREE)   **[3×2=6]**

a) Call - by - value and call-by-reference

b) Data abstraction

c) Default Argument