

Roll No.....

Total No. of Questions : 13]

[Total No. of Pages : 02

**J-3168[S-1024]**

**[2037]**

**BCA (Semester - 3<sup>rd</sup>)**

**OBJECT ORIENTED PROGRAMMING USING C++  
(BCA - 304)**

Time : 03 Hours

Maximum Marks : 75

**Instruction to Candidates:**

- 1) Section - A is **compulsory**.
- 2) Attempt any **Nine** questions from Section - B.

**Section - A**

**Q1)**

**(15 x 2 = 30)**

- a) Enumerate the rules of identifiers.
- b) What are the advantages of using functions in a program?
- c) What is a structure variable?
- d) What do you understand by memory leaks?
- e) How are the elements of one dimensional array stored and accessed?
- f) What is a constructor? Is it mandatory to use constructor in a class?
- g) What is polymorphism?
- h) How many arguments are required in the definition of an overloaded binary operator?
- i) What is a class? How does it accomplish data hiding?
- j) What is a virtual function?
- k) Why is that all functions of **ostream** class can operate on **fstream** class?
- l) Differentiate between **getline ( )** and **getc ( )** functions.

**P.T.O.**

- m) Name the header file of C++ to which following built-in function belong to :
- (i) **gets ( )** (ii) **getxy ( )**
- n) What is the difference between the functioning of **ios::ate** and **ios::app** file modes?
- o) Differentiate between **ifstream** class and **ofstream** class.

### Section - B

(9 x 5 = 45)

- Q2)** Write a program to find whether the number entered by the user is a palindrome or not.
- Q3)** Discuss features of object oriented programming.
- Q4)** Explain nesting of structures with a suitable example.
- Q5)** Explain at least two techniques of passing arguments for a function.
- Q6)** Explain with the help of example operator overloading for unary operator (for non friend function).
- Q7)** Explain the usage of **public**, **private** and **protected** access modifiers for members in inheritance.
- Q8)** Write a program to add multiply complex numbers (Make use of constructor overloading and destructors).
- Q9)** Explain with example multiple inheritance.
- Q10)** Write a short note on opening a file with **open ( )** member function.
- Q11)** Write a program that creates a text file.
- Q12)** What are input and output streams? Explain various streams available in C++.
- Q13)** Discuss redirection of input and output.

