

JK-221**B.C.A. IIIrd Semester (New)/ATKT****Examination, 2016****Object Oriented Programming Using C++****Paper - BCA-301****Time : 3 Hours]****[Maximum Marks : 85****Note :- All questions are compulsory.****SECTION - 'A'****Objective Type Questions****3×5=15****1. Choose the correct answer :**

- (i) Which of the following concepts provides facility of using object of one class inside another class ?
- (a) Encapsulation
 - (b) Abstraction
 - (c) Composition
 - (d) Inheritance

P.T.O.**(2)****JK-221**

- (ii) Which of the following can not be friend ?
- (a) Function
 - (b) Class
 - (c) Object
 - (d) Operator function
- (iii) _____ can not be used with the key word virtual.
- (a) Class
 - (b) Member function
 - (c) Constructor
 - (d) Destructor
- (iv) _____ operator is overloaded for object cout :
- (a) >>
 - (b) <<
 - (c) +
 - (d) =

(3)

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```

void main ( )
{
    m ( );
    void ( );
    {
        printf("hi");
    }
}

```

- (a) hi (b) compile time error
(c) nothing (d) Varies

SECTION - 'B'

Short Answer Type Questions 5×5=25

2. Why do we need object-oriented programming ? Explain the features of object-oriented programming.

OR

Explain the compatibility with example.

3. What is meant of inline function ? Write its advantages and restriction imposed on it with the help of example.

OR

What are manipulators ? Give the use of any five manipulators with example.

4. Differentiate between constructor and destructor with suitable example.

OR

What do you mean by operator function ? Write the syntax of an operator function and describe.

5. Write a program to demonstrate how constructors are implemented when the classes are inherited.

OR

What do you understand by diamond shaped ambiguity ? How it can be removed.

6. Explain pointer to derived class and base. Give suitable example.

OR

What is an exception ? How is an exception handled in

SECTION - 'C'**Long Answer Type Questions 9×5=45**

7. What are the basic concept of object oriented programming ?
Discuss them in detail.

OR

Write process of creating, compiling, linking and executing a C++ program.

8. Write a program to add two times (hrs, min and secs), illustrate the use of friend function.

OR

What is function overloading ? Why it is needed ? Explain with example.

9. Explain constructor and its types with syntax.

OR

Write a program to overload unary operator "-" using both member and friend function.

10. What are the different forms of inheritance ? Give an example.

P.T.O.**(6)****JK-221****OR**

What are the role of access specifiers in class declaration ?
Illustrate with example.

11. What is the purpose to create virtual function ? Write declaration for a virtual function and rules for virtual function with example.

OR

Discuss the console I/O operations in detail.
