NOV/DEC EXAMINATION – 2020
BCA SEM - 3
SUBJECT CODE: 20632
OBJECT ORIENTED PROGRAMMING WITH C++

0 9 DEC 2020

Time: 02:00 Hrs.   Total Marks: 70

Q-1(A)	State the difference between OOP & POP. Also explain concept of OOP.	18
	OR	
Q-1(A)(I)	What is class? How do you declare and create class and its object state with suitable example?	09
Q-1(A)(II)	Explain friend and inline function with suitable example.	09
Q-2(A)	Write a detailed note on constructor and its types with example.	18
	OR	
Q-2(A)(I)	What is operator overloading? Explain unary and binary operator overloading.	09
Q-2(A)(II)	What is Destructor? Explain with example.	09
Q-3(A)	What do you mean by Inheritance? Explain all its types with example.	17
	OR	
Q-3(A)(I)	What do you mean by type conversion? Explain categories of type conversion.	09
Q-3(A)(II)	Explain: constructor in derived class and abstract class with example.	08
Q-4(A)	Write a detail note on Polymorphism with example.	17
	OR	
Q-4(A)(I)	Write a note on Virtual and Pure Virtual Function.	09
Q-4(A)(II)	Explain: this pointer and Virtual Constructor with example.	08

નોંધ:

- પ્રશ્નપત્રનો સમય ૧.૩૦ કલાકનો રહેશે.
- પ્રશ્નપત્રમાં ૪ પ્રશ્નોમાંથી કોઇ પણ ત્રણ પ્રશ્નોના જવાબ આપવાનો રહેશે.
- દરેક પ્રશ્નના ગુણ એકસરખા (૧૪ માર્કના) રહેશે. પ્રશ્નપત્ર કુલ ૪૨ માર્ક્સ નું રહેશે.

Sub. code . 2958

-1 FEB 2022 Examination (70 marks)

Sub : Object Oriented Programming C++ (302)

Time:-2.30 Hours

B.C.A. SEM-III

1.	a)	Discuss basic concept of object oriented programming. Compare OOP with POP.	7
	b)	Explain applications of Object oriented programming.	7

Or

1.	a)	Explain static variable use in C++. What is Static Function? Explain both with example.	7
	b)	Answer the following Questions.	
		I. What is use scope resolution operator in C++?	3
		II. What is reference variable? What is main advantage of passing argument by reference?	4
2.	a)	Explain constructors with all its type. Explain all type of constructors with suitable example.	7
	b)	What is inline function in C++? Explain inline function with suitable example. List out the conditions when inline function is not work.	7

Or

2.	a)	What is class and object? Explain structure of Class in details.	7
	b)	Explain Friend function in details with suitable example.	7
3	a)	What is operator overloading? What is difference between binary operator overloading and unary operator overloading. What is role of friend function in operator overloading?	
	b)	Explain type conversion between one class to another class. Write a program to convert temperature from Fahrenheit to Celsius.	7

Or

3	a)	Enter any 2X2 matrix and check weather both are equal or not. (Use class and overloaded == operator)	7
	b)	Explain type conversion between basic to class and class to basic type. Explain each with suitable example.	7
4	a)	Explain inheritance with all its types.	7
	b)	What is virtual function? Write a note on rules of virtual functions.	7

Or

4	a)	Explain different visibility modes in C++. How can we use it in inheritance?	7
	b)	What is polymorphism? Explain compile time and runtime polymorphism with example.	7
5	a)	Explain command line argument with example.	7
	b)	Explain get(), put(), getline() and write() with example.	7

Or

5	a)	What do you mean by file mode? Explain various file mode used in file management.	7
	b)	Explain error handling functions available in C++ related to file operation.	7

BCA SEM-3 Examination

2 5 FEB 2022

Object Oriented Programming with C++
Subject Code:-20632

Time:- 2:00   Total:-56

Q-1	Explain basic concept of OOP in detail.	14
	OR	
Q-1(A)	Explain Structure of C++ program.	07
Q-1(B)	Differentiate OOP With POP .	07
Q-2	Explain the types of constructor with example.	14
	OR	
Q-2(A)	What is operator overloading? Explain binary operator overloading.	07
Q-2(B)	Explain Inline function with example.	07
Q-3	What is type of conversion? Explain Categories of type of conversion.	14
	OR	
Q-3(A)	Write a note on inheritance in brief.	07
Q-3(B)	Write a note on nesting of classes in brief.	07
Q-4	Explain compile time and runtime polymorphism with example.	14
	OR	
Q-4(A)	Explain this pointer with example.	07
Q-4(B)	Explain virtual constructor and destructor with example.	07

BCA SEM - 3
SUBJECT CODE: 20632
OBJECT ORIENTED PROGRAMMING WITH C++

2 0 JUL 2021

Total Marks: 70

Q-1(A)	What is Function? Explain Member Function, Inline Function and Friend Function with example.	18

OR

Q-1(A)(I)	Explain all looping statement with example.	09
Q-1(A)(II)	Differentiate : OOP V/s. POP	09

Q-2(A)	What is Operator Overloading? Explain Unary & Binary Operator Overloading with Example.	18

OR

Q-2(A)(I)	Define : Constructor and explain its all types.	09
Q-2(A)(II)	What is Destructor? Explain with example.	09

Q-3(A)	Discuss Inheritance and explain its all types with example.	17

OR

Q-3(A)(I)	What do you mean by type conversion? Explain categories of type conversion.	09
Q-3(A)(II)	Write a detail note on Nesting of Classes.	08

Q-4(A)	Write a detail note on Polymorphism with example.	17

OR

Q-4(A)(I)	Write a note on Virtual and Pure Virtual Function.	09
Q-4(A)(II)	Explain this pointer and Virtual Constructor.	08

નોંધ:
- પ્રશ્નપત્રનો સમય ૧.૩૦ કલાકનો રહેશે.
- પ્રશ્નપત્રમાં ૪ પ્રશ્નોમાંથી કોઇ પણ ત્રણ પ્રશ્નોના જવાબ આપવાનો રહેશે.
- દરેક પ્રશ્નના ગાગ એકસરખા (૧૪ માર્કના) રહેશે. પ્રશ્નપત્ર કુલ ૪૨ માર્કસ નું રહેશે.

B.C.A Sem-3 Examination
Subject Code: 20632
Object Oriented Programming with C++

Total: 70 Marks   Time: 2 ½ Hrs

Q – 1   Answer the following questions.
1. Explain Basic concept of OOP in brief.   07
2. What is Encapsulation? Explain Class and Object with example.   07

OR

Q – 1   Answer the following questions
1. What is OOP? State the difference between POP & OOP   07
2. Explain Memory Management Operator and Default Argument with   07
example.

Q – 2   Answer the following questions.
1. Explain Inline function with example.   07
2. What is Constructor? Explain types of constructor with example.   07

OR

Q – 2   Answer the following questions.
1. How classes and objects are created explain using a suitable example.   07
2. Explain Friend Function   07

Q – 3   Answer the following questions.
1. Explain: Operator Overloading with Binary operator overloading.   07
2. Explain Static data member & Static member function with example.   07

OR

Q – 3   Answer the following questions.
1. What is Type Casting? Explain Class to Basic type in detail.   07
2. What is 'Operator Overloading'? List operators which are not possible to   07
Overload using friend function. Give appropriate example of unary operator
Overloading.

Q – 4   Answer the following questions.
1. Write a note on Inheritance?   07
2. Explain constructor in derived class with suitable example.   07

OR

Q – 4   Answer the following questions.
1. What is Inheritance? Write a code showing the use of multiple inheritance.   07
2. Discuss: Virtual Base Class & Abstract class   07

Q – 5   Answer the following questions.
1. What is Late Binding? Explain Dynamic linking with example.   07
2. Explain Pointer to Function with example.   07

OR

Q – 5   Answer the following questions.
1. Explain pointers in Derived class.   07
2 . Explain Virtual constructor and destructor with example.   07

Seat No._____

B.C.A Semester-III Examination
Oct-2021
Object Oriented Programming with C++
Paper No.305
Subject Code No: 22693

Time:02:00 hrs   **Total Marks:56**

Q-1	Explain-Difference between OOP & POP. Also explain concept of OOP.	14
	OR	
Q-1(A)	What is class and object? Explain with example.	07
Q-1(B)	Explain structure of C++ program with example.	07
Q-2	What is constructor? Explain all types of constructor in detail with example.	14
	OR	
Q-2(A)	What is operator overloading? Explain binary operator overloading.	07
Q-2(B)	What is Destructor? Explain with example.	07
Q-3	What are the categories of type conversion? Explain all type in detail.	14
	OR	
Q-3(A)	What is inheritance? Explain types of inheritance in detail.	07
Q-3(B)	Explain nesting of class with example.	07
Q-4	What is polymorphism? Give detail of compile time and run time polymorphism	14
	OR	
Q-4(A)	What is virtual function? Explain with example.	07
Q-4(B)	Write a short note on "this pointer".	07

Seat No._____

B.C.A Semester-III Examination

2 4 FEB 2022

Object Oriented Programming with C++
Paper No.305
Subject Code No: 22693

Time:02:00 hrs   **Total Marks:56**

		14
Q-1	Explain class, member functions and object with example	
	OR	
Q-1 (A)	Explain static data member and static member function with example	07
Q-1 (B)	Benefits of OOP.	07
Q-2	What is constructor? Explain types of constructors with example	14
	OR	
Q-2 (A)	Write down any seven rules of operator overloading	07
Q-2 (B)	How to overload binary operators using friend function? Give an example	07
Q-3	What is inheritance? Explain types of inheritance	14
	OR	
Q-3 (A)	Explain virtual base class concept with example.	07
Q-3 (B)	Explain constructor in derived class.	07
Q-4	Explain types of polymorphism with examples.	14
	OR	
Q-4 (A)	Explain this pointer with example	07
Q-4 (B)	**Identify the error in the following program.**	07

```cpp
#include<iostream.h>
class a
{
    int i;
};
class ab : virtual a
{
    int j;
};
class ac: a, abac
{
    int k;
};
class abac: ab, ac
{
    int l;
};
void main()
{
    abac ABAC;
    cout<<"sizeof abac:" <<sizeof(ABAC);
}
```

B.C.A Sem-3 Examination
Subject Code: 20632
Object Oriented Programming with C++

Total: 70 Marks   Time: 2 ½ Hrs

Q – 1   Answer the following questions.
1. Explain Basic concept of OOP in brief.   07
2. What is Encapsulation? Explain Class and Object with example.   07
OR
Q – 1   Answer the following questions
1. What is OOP? State the difference between POP & OOP   07
2. Explain Memory Management Operator and Default Argument with   07
example.

Q – 2   Answer the following questions.
1. Explain Inline function with example.   07
2. What is Constructor? Explain types of constructor with example.   07
OR
Q – 2   Answer the following questions.
1. How classes and objects are created explain using a suitable example.   07
2. Explain Friend Function   07

Q – 3   Answer the following questions.
1. Explain: Operator Overloading with Binary operator overloading.   07
2. Explain Static data member & Static member function with example.   07
OR
Q – 3   Answer the following questions.
1. What is Type Casting? Explain Class to Basic type in detail.   07
2. What is 'Operator Overloading'? List operators which are not possible to   07
Overload using friend function. Give appropriate example of unary operator
Overloading.

Q – 4   Answer the following questions.
1. Write a note on Inheritance?   07
2. Explain constructor in derived class with suitable example.   07
OR
Q – 4   Answer the following questions.
1. What is Inheritance? Write a code showing the use of multiple inheritance. 07
2. Discuss: Virtual Base Class & Abstract class   07

Q – 5   Answer the following questions.
1. What is Late Binding? Explain Dynamic linking with example.   07
2. Explain Pointer to Function with example.   07
OR
Q – 5   Answer the following questions.
1. Explain pointers in Derived class.   07
2 . Explain Virtual constructor and destructor with example.   07

Seat No.....................................

2 2 OCT 2021

BCA SEM-3 Examination
Oct-Nov-2021
Object Oriented Programming with C++
Subject Code:-20632

Time:- 2:00   Total:-56

Q-1	What do you mean by OOP? Explain Concept of OOP and POP.	14
	OR	
Q-1(A)	What is class? How to declare and create class and its object state with suitable example.	07
Q-1(B)	Explain Friend and Inline Functions with suitable example.	07
Q-2	What is Operator Overloading? Explain Binary and Unary Operator overloading with example.	14
	OR	
Q-2(A)	What is destructor? Explain with example.	07
Q-2(B)	What is constructor? Explain types of constructor with example.	07
Q-3	What is inheritance? Explain all its types with example.	14
	OR	
Q-3(A)	Write a detail note on typecasting with example.	07
Q-3(B)	What is multilevel inheritance? Explain with example.	07
Q-4	What is polymorphism? Give detail of compile time and run time polymorphism	14
	OR	
Q-4(A)	What is late binding? Explain Dynamic linking with example.	07
Q-4(B)	What is virtual function explain with example.	07