



Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD)
Re-accredited with 'A++' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Bachelor's Degree Arrear Examination - November 2024

Batch: 2022

Time: 3 hours

Major : Computer Applications

Max.Marks: 100

21BCAC06 Object Oriented Programming with C++

Course Outcomes:

1. Design programs with objects and classes.
2. Understand the significance of object oriented concepts for modular development.
3. Ability to develop applications using Object Oriented Programming Concepts.
4. Apply the concept of polymorphism and inheritance.
5. Develop the application software using object oriented programming with C++.

Part A

Choose the correct answer

10 x 1=10

1. What is output of below program? CO1K4

```
int main()
{
int a=10;
int b,c;
b = a++;
c = a;
cout<<a<<b<<c;
return 0;
}
```

a. 111011 b.111111 c.101011 d. 101010
2. What is the index number of the last element of an array with 8 elements? CO1K3
a. 9 b.7 c.0 d. programmer defined
3. If class A is friend of class B and if class B is friend of class C, which of the following is true? CO2K2
a. Class A is friend of Class C
b. Class C is friend of Class A
c. Class A and Class C do not have any friend relationship
d. All the above
4. How many object can be created of a Class in C++? CO2K3
a. 1 b.5 c.There is no limit d.256
5. Which of the following is a valid destructor of the class name "Ocean"? CO3K2
a. void ~Ocean()
b. ~Ocean()
c. Ocean ~Ocean()
d. void ~Ocean(Ocean obj)
6. Which operator cannot be overloaded? CO3K3
a. + b. - c. * d. ::
7. Reusability of the code can be achieved in CPP through _____. CO4K2
a. Polymorphism b. Encapsulation c. Inheritance d. Both a and c
8. Which members of base class are inaccessible to derived class? CO4K1
a. Private b. Protected c. Public d. None
9. C++ supports run time polymorphism with the help of virtual functions, which is called _____ binding. CO5K2
a. dynamic b. run time c. early binding d. Static

10. The code of statements which may cause abnormal termination of the program should be written under _____ block. CO5K1
a. try b.catch c.finally d.none

Part-B

Answer ALL Questions

Each answer should not exceed 400 words or two pages 5x 6 =30

- 11.a. Discuss conditional and looping statements with examples. CO1K1
(or)
11.b.Explain about all the data types available in C++? CO1K2
- 12.a.What is the advantage of using static data members and functions? CO2K1
(or)
12.b.Discuss how dynamic objects are created. CO2K1
- 13.a.Explainoverloading complex operators. CO3K2
(or)
13.b.What is a destructor? Explain with an example. CO3K1
- 14.a. Write a program for single level inheritance. CO4K3
(or)
14.b.What is the need of Virtual classes? Explain with help of examples. CO4K1
- 15.a.Discuss on static and dynamic polymorphism. CO5K2
(or)
15.b.Discuss on user defined exception class. CO5K3

Part-C

Answer ALL Questions

Each answer should not exceed 800 words or four pages 5x 12 =60

- 16.a.Explainin detail the object oriented programming concepts. CO1K1
(or)
16.b. Write short notes on i) Arrays ii) Structures CO1K1
- 17.a. Elaborate on passing parameters, constant parameters and defaultparameters in member functions. CO2K3
(or)
17.b.Write in detail on friend class and friend function with example program. CO2K2
- 18.a. Write a program in C++ to demonstrate overloading of arithmetic operator. CO3K2
(or)
18.b.Discuss on multiple constructors, default constructor and copy constructor. CO3K1
- 19.a. Explain multi-level inheritance with suitable example. CO4K1
(or)
19.b.Write a C++ program demonstrating multiple inheritance. CO4K2
- 20.a. Elaborate on virtual functions in C++ with example program. CO5K1
(or)
20.b.What is a Exception? Discuss on try, catch, multiple-catch, throw and rethrow. CO5K2
