

- Q.31 What is the need of preprocessor directive.  
Q.32 What is a class. How does it accomplish data hiding.  
Q.33 Explain the virtual base class.  
Q.34 Write a program in C++ to display first 10 prime numbers.  
Q.35 Write a short note on.  
a) Message passing      b) Dynamic binding

#### SECTION-D

**Note:** Long Answer type question. Attempt any two questions. (2x10=20)

- Q.36 Describe the following terms with an examples of each:-  
a) Scope resolution operator  
b) Macros  
c) This pointer  
d) Abstract base class  
Q.37 Discuss the benefits and applications of object oriented programming.  
Q.38 What is the need of operator overloading? Overload any relational operator using operator overloading function.

No. of Printed Pages : 4

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#### 4th Sem / Computer Subject : O.O.P. Using C++

**Time : 3 Hrs.**

**M.M. : 100**

#### SECTION-A

Note: Multiple choice questions. All questions are compulsory. (10x1=10)

- Q.1 Which of the following is an exit-controlled loop?  
a) for                                      b) while  
c) do-while                                d) all of the mentioned  
Q.2 Which of the following is C++ equivalent for scanf()?  
a) cin                                        b) cout  
c) print                                      d) input  
Q.3 What is the size of a boolean variable in C++?  
a) 1 bit                                        b) 1 byte  
c) 4 bytes                                    d) 2 bytes  
Q.4 What is static binding?  
a) The process of linking the actual code with a procedural call during run-time.  
b) The process of linking the actual code with a procedural call during compile-time  
c) The process of linking the actual code with a procedural call at any-time.  
d) All of the mentioned  
Q.5 Which of the following is not a type of Constructor?

- a) Friend constructor
  - b) Copy constructor
  - c) Default constructor
  - d) Parameterized constructor
- Q.6 Which of the following is correct?
- a) Base class pointer object cannot point to a derived class object
  - b) Derived class pointer object cannot point to a base class object
  - c) A derived class cannot have pointer objects.
  - d) A base class cannot have pointer objects
- Q.7 The operator used for dereferencing or indirection is \_\_\_\_\_
- a) \*
  - b) &
  - c) ->
  - d) ->>
- Q.8 Each statement in a C++ program should end with?
- a) Semicolon ;
  - b) Colon :
  - c) Period . (Dot symbol)
  - d) None of the above
- Q.9 Reusability of code in C++ is achieved through \_\_\_\_\_
- a) Polymorphism
  - b) Inheritance
  - c) Encapsulation
  - d) Both A and B
- Q.10 Which operator is used as Logical 'AND'.
- A) Operator-&
  - b) Operator-II
  - c) Operator-&&
  - d) Operator+

### SECTION-B

**Note :** Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Define variable.
- Q.12 Write the use of delete operator.

- Q.13 Name one operator that cannot be overloaded.
- Q.14 Write down the use of endl.
- Q.15 What is the use of pointers in C++.
- Q.16 Define Cin and Cout.
- Q.17 Define inheritance.
- Q.18 What is private data.
- Q.19 Define destructor.
- Q.20 What is compile time polymorphism.

### SECTION-C

**Note :** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Define control flow statement. Also write a program to check whether the given number is odd or even using it.
- Q.22 What down the differences between user defined and built in functions.
- Q.23 What is the difference between while loop and do while loop.
- Q.24 What are virtual destructor. How do they differ from normal destructor.
- Q.25 What are the steps involved for opening a file.
- Q.26 Explain the usage of public, private and protected access modifiers for members in inheritance.
- Q.27 Define pointers. How the arguments are passed in a function using pointers.
- Q.28 What is the benefit of declaring a function as inline.
- Q.29 What are the different methods of calling a function.
- Q.30 List the five benefits of OOPs.