C++ Question

Question1

The phenomenon where the object outlives the program execution time and exists between executions of a program is known as.

A. Global Object
B. Persistent Object
C. Genericity
D. Delegation

Answer B

Question 2

Object-Based Programming Language supports

A. Inheritance
B. Polymorphism
C. Encapsulation
D. All of the above

Answer C

Question 3

Abstraction is crucial to understanding

A. Class
B. Application
C. Object
D. Control flow

Answer C

Question 4

Object oriented design decomposes a system into

A. Classes
B. Objects
C. Structures
D. Methods

Answer B

Question 5

If a class member function is declared a const, the function

A. Does not change the value of any data member of that class
B. Does not change the value of any data member of implied object
C. Does not change the value of any data member of that class
D. All of the above

Answer B

Question 6

What is the output of the program?

```
#include <stdio.h>

float cal (float value)
{
   return (3 * value);
}

void main()
{
   int a = 10;
   float b = cal ("123");
}
```

A. 369
B. 123
C. Compilation error - Cannot convert from char to float
D. None of the above

Answer C

Question 7

The act of grouping into a single object, both data and the operation that affect that data is known as

A. Encapsulation
B. Inheritance
C. Abstraction

D. None of the above

Answer A

Question 8

What is a class?

A. It is a region of storage.
B. It defines a data type.
C. It is exactly same as a struct in c.
D. All of the above.

Answer B

Question 9

What is the output of the program?

```
#include <iostream.h>

void main ()
{
   for(int j = 1, sum = 0; j < 5; j++)
      sum += j;
   sum = j;
   cout << sum;
}
```

A. 5
B. 10
C. Compilation error. Undefined variable sum and j
D. 6

Answer A

Question 10

Which one supports unknown data types in a single framework?

A. Inheritance
B. Virtual functions
C. Templates
D. Abstract Base Class

Answer C

Question 11

Inheritance is expressed by the following statement?

A. class car : public vehicle
B. class car extends vehicle
C. public class car extends vehicle
D. class car inherits vehicle

Answer A

Question 12

Object oriented design decomposes a system into

A. Classes
B. Objects
C. Structures
D. Methods

AnswerB

Question 13

Which of the following statements is not correct?

A. You can create new operators like $ or @
B. You cannot change an operator's template
C. Operators can only be overloaded when used with abstract data class
D. Unary operators overloaded by means of a member functions takes no explicit arguments and return no explicit values

Answer A

Question 14

Which of the following is false about struct and class in C++?

A. The members and base classes of a struct are public by default, while in class, they are private by default
B. Struct and class are otherwise functionally equivalent
C. A class supports all the access specifiers like private, protected and public
D. A struct cannot have protected access specifier

Answer D

Question 15

Protected keyword is frequently used

A. For function overloading
B. For protecting data
C. For inheritance
D. For security purpose

Answer C

Question 16

Abstract base class is one, which has

A. All pure virtual functions
B. At least one pure virtual function
C. Functions with abstract keyword
D. No pure virtual functions

Answer B

Question 17

What is exception handling?

A. Errors which occur at runtime
B. When abnormal situation arises at compile time
C. When errors occur at link time
D. None of the above

Answer A

Question 18

What is the output of the program?

```
#include <iostream.h>

inline int max(int x, int y)
{
   return(x > y ? x : y);
}
```

```
void main()
{
   int(* max_func)(int,int)=max;
   cout << max_func(75,33);
}
```

A. 75
B. Error - Undefined symbol max_func
C. 33
D. None of the above

Answer A

Question 19

Which keyword is used to decide on the choice of function or method at runtime?

A. Abstract
B. Virtual
C. Protected
D. Static

Answer B

Question 20

Which of the following is a correct statement?

A. Abstract class object can be created
B. Pointer to abstract class can be created
C. Reference to abstract class can be created
D. Both B and C

Answer D

Question2 1

What does an empty class contain?

A. Default constructor
B. Copy constructor
C. Address of operator

D. All of the above

Answer D

Question 22

In protected derivation

A. Protected and public members of base class become protected
B. Private, protected and public members of base class become protected
C. Private, protected and public members of base class become private
D. Protected and public members of base class become private

Answer A

Question 23

What is the output of the program?

```
#include <iostream.h>

void main()
{
   int j = 20, k = 30;
   int & m = j;
   int * n = &j;
   cout << j << " " << k << " " << m << " ++ " ;
   m = k;
   cout << j << " " << k << " " << m << " ++ ";
   n = &k; // n now points to k
   cout << j << " " << k << " " << m << " " << *n << endl;
}
```

A. 20 30 20 ++ 20 30 30 ++ 30 30 30 30
B. 20 30 20 ++ 30 30 30 ++ 20 30 30 30
C. 20 30 20 ++ 20 30 30 ++ 20 30 30 30
D. 20 30 20 ++ 30 30 30 ++ 30 30 30 30

Answer D

Question 24

Class istream in iostream.h is defined as

A. Class istream : public ios

B. Class istream : public virtual ios
C. Class istream : public iostream
D. Class istream : public virtual iostream

AnswerB

Question2 5

Interface contains

A. At least one pure virtual function
B. No pure virtual function
C. All pure virtual functions
D. None of the above

AnswerC

Question 26

What is the size of empty class?

A. 0 bytes
B. 2 bytes
C. 1 byte
D. 4 bytes

AnswerC

Question 27

The advantage of defining a pure virtual member function in a class is

A. Derived class may implement the pure virtual function
B. Derived class must implement the pure virtual function
C. Derive class is abstract class if it does not implement the pure virtual function
D. Both B and C

AnswerD

Question 28

What is the output of the following?

```
#include
```

```
void main()
{
   int x, y;
   x=(3, 4, 5);
   y=3, 4, 5;
   cout << endl <<  x <<"  "<< y;
}
```

A. Compilation Error
B. 3 5
C. 3 3
D. 5 3

AnswerD

Question 29

What is the output of the following?

```
#include <iostream.h>

void main ()
{
   {
      for(int x=1; x <= 5; x++, x+=5);
   }
   cout << endl << " value of x = " << x;
}
```

A. 6
B. 7
C. compilation error
D. 2

Answer C

Question 30

What is the output of the following?

```
#include <iostream.h>

void main ()
{
```

```
    cout << (cout<<" Hello ") << " world ";
}
```

A. No output is displayed
B. Hello some_address_value world
C. Hello world
D. compilation error

Answer B

Question 31

The class fstreambuf serves as base class for

A. ifstream, ofstream, fstream
B. ifstream, ofstream
C. ostream
D. ifstream

Answer A

Question 32

The scope resolution operator permits

A. Access to an identifier in the global scope that has been hidden by another identifier with the same name in the local scope
B. Access to an identifier in the global space
C. Access to an identifier in the local scope
D. Access to an identifier in the local scope and global scope

AnswerA

Question 33

The declaration

```
  void func_name( )
```

accepts

A. Any no of arguments
B. Only one argument
C. No Arguments
D. None of the above

Answer C

Question 34

The technique of allocating memory during runtime on demand is known as

A. Dynamic binding
B. Dynamic memory allocation
C. Late binding
D. Template

AnswerC

Question 35

What is the output of the following?

```
#include

void main()
{
   enum col {red, blue, yellow};
   col c = blue << 1;
   cout << c;
}
```

A. 1
B. 2
C. 3
D. 4

Answer B

Question 36

The advantage of defining a pure virtual member function in a class is

A. Derived class may implement the pure virtual function
B. Derived class must implement the pure virtual function
C. Derive class is abstract class if it does not implement the pure virtual function
D. Both B and C

AnswerD

Question 37

Input and output operators are known as

A. extraction and insertion
B. get from and put to
C. Both A and B
D. None of the above

AnswerC

Question 38

A file can be tied to your program by defining an instance of

A. fstream
B. ifstream
C. ofstream
D. All of the above

Answer D

Question 39

Which of the following is not true about constructor

A. constructor can be overloaded
B. constructor return type is int
C. constructor has the same name as the class in which it is defined
D. constructor are used for initializing data members

AnswerB

Question 40

What is the output of the program?

```
#include <iostream.h>
char *buf1 = "Genesis", *buf2 = "InSoft";

void main()
{
   const char *p = buf1;
   p = buf2;
   *p = 'g';
   cout << *p;
}
```

What is the output of the program?

A. g
B. genesis
C. No ouput is displayed
D. l-value specifies constant object

Answer D

Question 41

Which of the following statements is true?

A. A constant member function does allow changes to any data members in the class
B. A static member functions allows access to non-static data
C. The size of the object is the sum of size of all non-static data
D. The size of a struct variable is the sum of size of all static and all non-static data

Answer C

Question4 2

What is the output of the following?

```
#include

void main()
{
   int x = 20;
   int &t = x;
   x = 50;
   cout << x << " " << t;
}
```

A. 20 50
B. 50 20
C. 50 50
D. None of the above

Answer C

Question 43

Friend function adds flexibility to the language, but they are controversial

A. Because it goes against the rule of data encapsulation
B. Because it can access a class's private data
C. Both A and B
D. None of the above

Answer C

Question44

Which of the following is true about a destructor?

A. Destructor like a constructor can accept arguments
B. Destructor can be overloaded
C. Destructor function is the same name as a class which is preceded by the tilde character
D. Destructor return type is void

Answer C

Question 45

The prototype of output operator in the class "test" is as follows

A. friend ostream & operator << (ostream &, test &)
B. ostream & operator << (ostream &, test &)
C. friend ostream & operator << (test &)
D. friend ostream & operator << (ostream &)

Answer A

Question 46

Which of the following statements is false?

A. Friend functions take one argument more than a member function
B. Operator overloading allows us to create new operators
C. Static member functions can access only static data
D. A constant cannot be changed

Answer B

Question 47

Which of the following statements is true?

A. We cannot overload operator new and operator delete
B. Each instance of a class has a different copy of static data
C. We need to define in every class a constructor and destructor
D. class istream extends class ios

Answer D

Question48

What is the output of the following?

```
#include <iostream.h>

int add(int, int = 5, int = 10);

void main() {
   cout << add(10) << " " << add(10, 20) << " " << add(10, 20, 30);
}

int add(int a, int b, int c)
{
   return a + b + c;
}
```

A. compilation error
B. 25 40 60
C. 15 30 60
D. 20 40 60

Answer B

Question 49

To turn overloading off, which of the statements is used?

A. extern "C"
B. static "C"
C. Register "C"
D. off "C"

Answer A

Question 50

The keywords related to exception handling are?

A. test, catch
B. try, throw, catch
C. namespace, catch
D. try, finally

Answer B

Question51

Genericity is a technique to

A. Defining software components that have more than one interpretation depending on the data type of parameter.
B. Which allows the extension of the functionality of the existing software components.
C. To derive a class from more than one base class.
D. Of creating new data types that are well suited to an application.

Answer A

Question 52

Comments are

A. Integral part of the program and they do nothing
B. Integral part of the program and they help in coding and maintenance
C. Are not part of the program
D. **Are** not part of the program and they slow down the execution speed

Answer B

Question 53

C++ does not support the following feature?

A. Multiple inheritance
B. Polymorphism
C. Operator overloading
D. Automatic memory management

AnswerD

Question 54

What is the output of the program?

```
#include <iostream.h>
char *buf1 = "Genesis", *buf2 = "InSoft";

void main()
{
   char* const q=buf1;
   *q='x';
   cout << *q;
}
```

A. x
B. xenesis
C. l-value specifies constant object
D. None of the above

AnswerA

Question 55

What happens when new operator is called?

A. It invokes operator new, then invokes the constructor and then does type casting
B. It invokes the constructor, calls operator new and then does type casting
C. It invokes operator new and then invokes the constructor
D. It invokes the constructor and then does type casting

Answer A

Question 56

Which keyword violates data encapsulation?

A. Public
B. Virtual
C. Friend
D. Protected

Answer C

Question 57

Which of the following is not true about destructor?

A. Destructor can be overloaded

B. A destructor class member function is typically used to return dynamically allocated memory
C. A destructor function has the same name as the class in which it is defined preceded by the tilde character
D. A destructor does not have any return type

Answer A

Question 58

What is the output of the program?

```
#include <iostream.h>

void main()
{
   int val = 5;
   int &val1 = val;
   int &val2;
   cout << val1;
}
```

A. 5
B. val2 - references must be initialized
C. Address of variable val is printed
D. None of the above

Answer B

Question 59

What happens when delete operator is called?

A. It invokes operator delete and then invokes the destructor if any
B. It invokes the destructor if any and then calls operator delete
C. It invokes operator delete
D. It invokes the destructor if any

AnswerA

Question 60

Which of the following are true about default arguments?

A. Default arguments must be the last argument

B. A default argument cannot be redefined in later declarations even if the redefinition is identical to the original
C. Additional default arguments can be added by later declarations
D. All of the above

Answer D

Question 61

What restrictions apply to reference variables?

A. You cannot reference a reference variable (i.e. you cannot take its address)
B. You cannot create arrays of references
C. References are not allowed on bit fields
D. All of the above

Answer D

Question 62

What is the output of the program?

```
#include <iostream.h>

struct Emp
{
   int id;
   float basic;
   float cal_salary();
   void show_emp();
};

void main()
{
   Emp e1;
   e1.basic = 5000.5;
   cout << e1.basic <<endl;
}
```

A. 5000
B. 5000.5

C. Error - as private data cannot be accessed
D. None of the above

Answer **B**

Question 63

What is the output of the program?

```
#include <iostream.h>
class test
{
   test()
   {
      cout << "constructor called" ;
   }
};

void main()
{
   test a();
}
```

A. constructor called
B. Error - constructor cannot be private
C. no output is displayed
D. None of the above

Answer **C**

Question 64

What is the output of the program?

```
#include <iostream.h>
class test
{
   int x;
   public:
      test(int y)
      {
         x = y;
      }
```

```
        int getX()
        {
           int x = 40;
           return this->x;
        }
};

void main()
{
   test a(10);
   cout << a.getX();
}
```

A. Compilation error
B. 10
C. 40
D. None of the above

Answer **B**

Question 65

What is the prototype of pre increment operator in class test?

A. void operator ++ ();
B. test operator ++ (int);
C. void operator ++ (int);
D. test operator ++ ( );

Answer **D**

Question 66

What restrictions apply to extern "C"?

A. You can specify extern "C" for only one instance of an overloaded function; all other instances of an overloaded function have C++ linkage
B. You can only declare C functions as 'extern "C"
C. You cannot declare a member function with extern "C"
D. Both A and C

Answer **D**

Question 67

What is the output of the program?

```
#include <iostream.h>

void fun(int & a, int b)
{
   a += 20;
   b += 30;
}

void main()
{
   int x = 10, y = 50;
   fun(x, y);
   cout << x << " " << y ;
}
```

A. 30 80
B. 10 50
C. 30 50
D. 10 80

Answer **C**

Question 68

What is the output of the following?

```
#include <iostream.h>
class test
{
   char x;
   static char c;
};

void main()
{
   test a;
   cout << sizeof(a);
}
```

A. 1
B. 2
C. 4
D. None of the above

Answer **A**

Question 69

What is the signature of the output operator for class test?

A. friend ostream & operator << (test &);
B. ostream & operator << (test &);
C. ostream & operator << (ostream &, test &);
D. friend ostream & operator << (ostream &, test &);

Answer **D**

Question 70

What is the member function called in the statement "test b = a" shown below?

```
void main()
{
   test a(10);
   test b = a;
}
```

A. Assignment operator
B. Constructor
C. Copy constructor
D. None of the above

Answer **C**

Question 71

A variable that is part of a class, yet is not part of an object of that class, is called a?

A. Static member
B. Friend member
C. Constant member
D. Non-static member

Answer **A**

Question72

The only member functions that could be called for const objects would be?

A. Constructors
B. Destructor
C. Const member functions
D. All of the above

Answer **D**

Question 73

Which of the following type conversions is automatic?

A. Conversion from built-in type to class type
B. Conversion from class type to built-in type
C. Conversion from one class type to another class type
D. None of the above

Answer **D**

Question 74

Which keyword do we use if the data members of the class are to be modified even when it belongs to a constant object?

A. mutable
B. static
C. const
D. friend

Answer **A**

Question 75

Which condition should the conversion function from class type to built-in type satisfy?

A. It must be a class member
B. It must not specify a return type
C. It must not have any arguments
D. All of the above

Answer **D**

Question 76

We prefer initialization to assignment for the following reason?

A. Const members can only be initialized
B. Reference members can only be initialized
C. To improve the efficiency, when a class contains a data member which is an object of another class
D. All of the above

Answer **D**

Question 77

Which keyword specifies that those members are accessible only from member functions and friends of the class and its derived classes?

A. private
B. public
C. protected
D. All of the above

Answer **C**

Question 78

Which of the following statements is correct?

A. When preceding the name of a base class, the protected keyword specifies that the public and protected members of the base class are protected members of the derived class
B. Default access of a base class is private for classes
C. Default access of a base class is public for structures
D. All of the above

Answer **D**

Question 79

What is the output of the program?

```
# include <iostream.h>

union test {
   int x;
};
```

```
class uc : public test
{
   int y;
};

main()
{
   uc u;
   cout << sizeof(u);
}
```

A. 8
B. 4
C. union cannot be used as base class
D. None of the above

Answer **C**

Question 80

Which of the following statements are true about static member functions?

A. Cannot make use of this pointer
B. Cannot access any non-static data
C. Cannot be declared const
D. All of the above

Answer **D**

1)
which of the following cannot be overloaded
?:
::
.
.*

Ans : no one can be overloaded

2) Predict the output

```
#include <iostream.h>
using namespace std;

void main()
{
	std::cout<<"Hello.";
}
```

Hello.
Compile time error. Correct
Run time error.
I don't know.

3)What will be the output of the following

```
#include <iostream.h>
class Base
{
	public:
```

```
        Base(){ cout<<"\nBase"; }
};

class Derived1:public Base
{
    public:
        Derived1(){ cout<<"\nDerived1"; }
};

class Derived2:public Derived1
{
    public:
        Derived2(){ cout<<"\nDerived2"; }
        void Disp(){cout<<"\nDisplay";}
};

void main()
{
    Derived2 Obj;
    Obj.Disp();
}
```

Ans1: Base Correct
Derived1
Derived2
Display

Ans2: Derived2
Display
Derived1
Base

Ans3: Derived2

Derived1
Base
Display

Ans4: Display

4) What will be the output of the following

```
#include <iostream.h>
class CLASS
{
	int i;
	CLASS(){++i;}
public:
	void Disp(){cout<<i;}
};

void main()
{
	CLASS Obj;
	Obj.Disp();
}
```

Ans : 1
Ans : Garbage Value
Ans : Error Correct
Ans : 0

5)

```
#include <iostream.h>
```

```
struct Base
{
	public:
		void Disp(){cout<<"Hello, how are you....??";}
};

struct Derived1: private Base
{
	public:
		void Disp()
		{
			Base b;
			b.Disp();
		}

};
void main()
{
	Derived1 D;
	D.Disp();
}
```

Ans : Hello, how are you....??
Ans : I'm fine.
Ans : Error, because structures cannot be inherited.
Ans : Error, since privately inheritaed

6)
The size of a class with no data members and member functions is ____ bytes.

1 Correct
2
3
4

7) what will be the output of the following :

```
#include <iostream.h>
class A
{
      int Num;
      public :
      virtual void disp(){}
};

void main()
{
      A a;
      cout<<sizeof(a);
}
```

2
4
6
8 Correct

8)
A “has a” relationship between classes represents _____ and an “is a” relationship between classes represent _____.

Ans : Inheritance. Contenment
Ans : Contenment, Inheritance Correct
Ans : public Inheritance, private Inheritance
Ans : Private Inheritance, Public Ineritance

9)
Data items in a class may be public

Ans : True
Ans : False
Ans : I don't know

10) what will be the output of the following :

```
#include <iostream.h>
int Fun(int I, int J)
{
      return ( (I<J) ? I : J );
}
void main()
{
     int I=10, J=20;
     cout<<Fun(I,J);
}
```

10 Correct
20
30
error

11) what will be the output of the following :

```
#include <iostream.h>
void main()
{
	int Num=10, Num1=100;
	const int *Ptr=&Num;
	Ptr=&Num1;
	cout<<*Ptr;
}
```

10
100 Correct
Address of Num1
Error

12) what will be the output of the following:

```
#include <iostream.h>
void main()
{
	int Num=10;
	const int *Ptr=&Num;
	cout<<++*Ptr;
}
```

10
11
Address of Num + 1
Error Correct

13) Main pillars of Object Oriented Language are :

Inheritance Correct

Abstraction Correct

Polymorphism

Encapsulation Correct