MCQ’s Questions on Programming in C++ ( For B.Sc. S.Y.)

1. Which of the following is the correct syntax of including a user defined header files in C++?  
a) #include <userdefined.h>  
**b) #include <userdefined>**c) #include “userdefined”  
d) #include [userdefined]

2. Which of the following is a correct identifier in C++?  
a) 7var\_name  
b) 7VARNAME  
**c) VAR\_1234**d) $var\_name

3. Which of the following is called address operator?  
a) \*  
**b) &**  
c) \_  
d) %

4. Which of the following is used for comments in C++?  
a) // comment  
b) /\* comment \*/  
**c) both // comment or /\* comment \*/**  
d) // comment \*/

5. What are the actual parameters in C++?  
**a) Parameters with which functions are called**  
b) Parameters which are used in the definition of a function  
c) Variables other than passed parameters in a function  
d) Variables that are never used in the function

6. What are the formal parameters in C++?  
a) Parameters with which functions are called  
**b) Parameters which are used in the definition of the function**c) Variables other than passed parameters in a function  
d) Variables that are never used in the function

7. Which function is used to read a single character from the console in C++?  
**a) cin.get(ch)**b) getline(ch)  
c) read(ch)  
d) scanf(ch)

8. Which function is used to write a single character to console in C++?  
**a) cout.put(ch)**b) cout.putline(ch)  
c) write(ch)  
d) printf(ch)

9. What are the escape sequences?  
**a) Set of characters that convey special meaning in a program**  
b) Set of characters that whose use are avoided in C++ programs  
c) Set of characters that are used in the name of the main function of the program  
d) Set of characters that are avoided in cout statements  
View Answer

10. Which of the following escape sequence represents carriage return?  
a) \r  
**b) \n**c) \n\r  
d) \c

11. Which of the following escape sequence represents tab?  
**a) \t**b) \t\r  
c) \b  
d) \a

12. Who created C++?  
**a) Bjarne Stroustrup**b) Dennis Ritchie  
c) Ken Thompson  
d) Brian Kernighan

13. Which of the following is called insertion/put to operator?  
**a) <<**  
b) >>  
c) >  
d) <

14. Which of the following is called extraction/get from operator?  
a) <<  
**b) >>**  
c) >  
d) <

15. Which of the following is not a type of Constructor?  
**a) Friend constructor**  
b) Copy constructor  
c) Default constructor  
d) Parameterized constructor

16. 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

17. Out of the following, which is not a member of the class?  
a) Static function  
b) Friend function  
**c) Constant function**  
d) Virtual function

18. What is the other name used for functions inside a class?  
a) Member variables  
**b) Member functions**  
c) Class functions  
d) Class variables

19. Which of the following cannot be a friend?  
a) Function  
b) Class  
**c) Object**  
d) Operator function

20. Why references are different from pointers?  
a) A reference cannot be made null  
b) A reference cannot be changed once initialized  
c) No extra operator is needed for dereferencing of a reference  
**d) All of the mentioned**

21. Which of the following provides a programmer with the facility of using object of a class inside other classes?  
a) Inheritance  
b) Composition  
c) Abstraction  
d) Encapsulation  
View Answer

22. How many types of polymorphism are there in C++?  
a) 1  
**b) 2**  
c) 3  
d) 4

23. How run-time polymorphisms are implemented in C++?  
a) Using Inheritance  
b) Using Virtual functions  
c) Using Templates  
**d) Using Inheritance and Virtual functions**

24. How compile-time polymorphisms are implemented in C++?  
a) Using Inheritance  
b) Using Virtual functions  
**c) Using Templates**d) Using Inheritance and Virtual functions  
Answer: c  
Explanation: Compile-time polymorphism is implemented using templates in which the types(which can be checked during compile-time) are used decides which function to be called.

25. Which of the following is an abstract data type?  
a) int  
b) float  
**c) class**  
d) string

26. What is the size of wchar\_t in C++?  
a) 2  
b) 4  
c) 2 or 4  
**d) Based on the number of bits in the system**  
Answer: d  
Explanation: Compiler wants to make CPU as more efficient in accessing the next value.

27. Pick the odd one out.  
**a) array type**  
b) character type  
c) boolean type  
d) integer type

28. Which data type is used to represent the absence of parameters?  
a) int  
b) short  
**c) void**d) float

29. What does ‘\a’ escape code represent?  
**a) alert**b) backslash  
c) tab  
d) form fee

30. Which type is best suited to represent the logical values?  
a) integer  
**b) boolean**  
c) character  
d) float

31. Identify the user-defined types from the following?  
a) enumeration  
b) classes  
**c) both enumeration and classes**d) int

32. When the inheritance is private, the private methods in base class are \_\_\_\_\_\_\_\_\_\_ in the derived class (in C++).

**A. Inaccessible**  
B. Accessible  
C. Protected  
D. Public

Explanation: When the inheritance is private, the private methods in base class are inaccessible in the derived class (in C++).

33. Which design patterns benefit from the multiple inheritances?

**A. Adapter and observer pattern**B. Code pattern  
C. Glue pattern  
D. None of the mentioned

Explanation: A template is a formula for creating a generic class

34. What is meant by multiple inheritance?

A. Deriving a base class from derived class  
B. Deriving a derived class from base class  
**C. Deriving a derived class from more than one base class**D. None of the mentioned

35. What will be the order of execution of base class constructors in the following method of inheritance.class a: public b, public c {...};

**A. b(); c(); a();**B. c(); b(); a();  
C. a(); b(); c();  
D. b(); a(); c();

Explanation: b(); c(); a(); the order of execution of base class constructors in the following method of inheritance.class a: public b, public c {...};

36. Inheritance allow in C++ Program?

A. Class Re-usability  
B. Creating a hierarchy of classes  
C. Extendibility  
**D. All of the above**

Explanation: Advantage of inheritance are like re-usability- You can re-use existing class in a new class that avoid re-writing same code and efforts.We can make an application easily extensible.

37. Can we pass parameters to base class constructor though derived class or derived class constructor?

**A. Yes**B. No  
C. May Be  
D. Can't Say

Explanation: Yes, we pass parameters to base class constructor though derived class or derived class constructor.

38. What are the things are inherited from the base class?

A. Constructor and its destructor  
B. Operator=() members  
C. Friends  
**D. All of the above**

Explanation: These things can provide necessary information for the base class to make a logical decision.

39. Which of the following advantages we lose by using multiple inheritance?

A. Dynamic binding  
B. Polymorphism  
C. Both Dynamic binding & Polymorphism  
D. None of the mentioned

View Answer

40. What will be the output of the following program?

Note:Includes all required header files

class find {

public:

void print() { cout <<" In find"; }

};

class course : public find {

public:

void print() { cout <<" In course"; }

};

class tech: public course { };

int main(void)

{ tech t;

t.print();

return 0;

}

1. In find  
   **B. In course**C. Compiler Error: Ambiguous call to print()  
   D. None of the above

Explanation: The print function is not present in class tech. So it is looked up in the inheritance hierarchy. print() is present in both classes find and course, which of them should be called? The idea is, if there is multilevel inheritance, then function is linearly searched up in the inheritance hierarchy until a matching function is found.

41. Which symbol is used to create multiple inheritance?

A. Dot  
**B. Comma**  
C. Dollar  
D. None of the above

Explanation: For using multiple inheritance, simply specify each base class (just like in single inheritance), separated by a comma.

42. Which of the followings is/are automatically added to every class, if we do not write our own.

A. Copy Constructor.  
B. Assignment Operator  
C. A constructor without any parameter  
**D. All of the above**

Explanation: In C++, if we do not write our own, then compiler automatically creates a default constructor, a copy constructor and a assignment operator for every class..

43. Which of the following gets called when an object is being created?

**A. Constuctor**B. Virtual Function  
C. Destructors  
D. Main

44. Destructor has a same name as the constructor and it is preceded by?

A. !  
B. ?  
**C. ~**D. $

45. Like constructors, can there be more than one destructors in a class?

A. Yes  
**B. No**C. May Be  
D. Can't Say

46. State whether the following statements about the constructor are True or False. i) constructors should be declared in the private section. ii) constructors are invoked automatically when the objects are created.

A. True,True  
B. True,False  
**C. False,True**D. False,False

47. Which of the following is true about constructors. i) They cannot be virtual ii) They cannot be private. iii) They are automatically called by new operator.

**A. All i,ii,iii**B. i & iii  
C. ii & iii  
D. i & ii

48. Destructors \_\_\_\_\_\_\_\_\_\_ for automatic objects if the program terminates with a call to function exit or function abort

A. Are called  
**B. Are not called**C. Are inherited  
D. Are created

49. Which contructor function is designed to copy object of same class type?

**A. Copy constructor**B. Create constructor  
C. Object constructor  
D. Dynamic constructor

Explanation: Copy constructor function is designed to copy object of same class type.

50. Which of the following is not correct for virtual function in C++ ?.

**A. Virtual function can be static.**B. Virtual function should be accessed using pointers  
C. Virtual function is defined in base class  
D. Must be declared in public section of class

Explanation: Virtual function is can’t be static in C++.

51. How can we make a class abstract?

A. By declaring it abstract using the static keyword  
B. By declaring it abstract using the virtual keyword.  
**C. By making at least one member function as pure virtual function**D. By making all member functions constant

Explanation: We can make a class abstract by making at least one member function as pure virtual function.

52. How many specifiers are present in access specifiers in class?

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

53. Which of these following members are not accessed by using direct member access operator?

A. Public  
B. Private  
C. Protected  
D. **Both B & C**

54. Which other keywords are also used to declare the class other than class?

A. Struct  
B. Union  
C. Object  
**D. Both struct & union**

55. Which of the following is true?

A. All objects of a class share all data members of class  
**B. Objects of a class do not share non-static members. Every object has its own copy**  
C. Objects of a class do not share codes of non-static methods, they have their own copy  
D. None of these

View Answer

56. Which of the following can be overloaded?

A. Object  
B. Operators  
**C. Both A & B**D. None of the above

View Answer

57. Which is also called as abstract class?

A. Virtual function  
B. Derived class  
C**. Pure virtual function**D. None of the mentioned

58. What will be the output of the following program?

#include <iostream>

using namespace std;

class LFC

{

static int x;

public:

static void Set(int xx)

{

x = xx;

}

void Display()

{

cout<< x ;

}

};

int LFC::x = 0;

int main()

{

LFC::Set(33);

LFC::Display();

return 0;

}

A. The program will print the output 0.  
B. The program will print the output 33.  
C. The program will print the output Garbage.  
**D. The program will report compile time error.**

Explanation: The program will report compile time error: cannot call member function "void LFC::Display()" without object

59. What will be the output of the following program?

Note:Includes all required header files

class course

{ int x, y;

public:

course(int xx)

{

x = ++xx;

}

void Display()

{

cout<< --x << " ";

}

};

int main()

{

course obj(20);

obj.Display();

int \*p = (int\*)&obj ;

\*p = 5;

obj.Display();

return 0;

}

**A. 20 4**  
B. 21 4  
C. 20 5  
D. 21 5

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60. Which of the following function / types of function cannot have default parameters?

A. Member function of class  
B. Main()  
C. Member function of structure  
**D. Both B and C**

61. Correct way to declare pure virtual function in a C++ class is

**A. Virtual void foo() =0** ;  
B. Void virtual foo()= { 0 }  
C. Virtual void foo() {} = 0;  
D. None of the above

View Answer

62. What is the scope of the variable declared in the user defined function?

A. Whole program  
**B. Only inside the {} block**  
C. The main function  
D. None of the above

63. Which of the following in Object Oriented Programming is supported by Function overloading and default arguments features of C++.

A. Inheritance  
**B. Polymorphism**  
C. Encapsulation  
D. None of these

64. Predict the output:

float x= 3.1496;

cout << setprecision(2) << x;

**A. 3.14**  
B. 3.15  
C. 3  
D. 3.1

65. Which of the following statement is correct?

A. Only one parameter of a function can be a default parameter.  
B. Minimum one parameter of a function must be a default parameter.  
**C. All the parameters of a function can be default parameters.**D. No parameter of a function can be default.

66. Which of the following function declaration using default arguments is incorrect?

**A. int foo(int x, int y =5, int z=10)**B. int foo(int x=5, int y =10, int z)  
C. int foo(int x=5, int y, int z=10)  
D. All are correct

View Answer

67. How are many minimum numbers of functions need to be presented in c++?

A. 0  
**B. 1**C. 2  
D. 3

View Answer

68. Inline functions may not work \_\_\_\_\_\_ . i) If function contain static variables. ii) If function contain global and register variables. iii) If function returning value consists looping construct(i.e. for, while). iv) If inline functions are recursive. v) If function contains const value.

A. Only i,iv & v  
B. Only ii,iii & v  
C. Only i,iii & iv  
D. All of the above

Explanation: int foo(int x, int y =5, int z=10) function declaration using default arguments is incorrect.

69. Unary scope resolution operator is denoted by

A. ! !  
B. % %  
C. :  
**D. : :**

70. Which stream class is to only write on files ?

**A. ofstream**B. ifstream  
C. fstream  
D. iostream

Explanation: ofstream class is to only write on files.

71. It is not possible to combine two or more file opening mode in open () method.

A. TRUE  
**B. FALSE**C. May Be  
D. Can't Say

Explanation: False, It is not possible to combine two or more file opening mode in open () method.

72. Which of these is the correct statement about eof() ?

A. Returns true if a file open for reading has reached the next character.  
B. Returns true if a file open for reading has reached the next word.  
**C. Returns true if a file open for reading has reached the end.**D. Returns true if a file open for reading has reached the middle.

Explanation: Returns true if a file open for reading has reached the end is the correct statement about eof().

73. Which of the following true about FILE \*fp

**A. FILE is a structure and fp is a pointer to the structure of FILE type**  
B. FILE is a buffered stream  
C. FILE is a keyword in C for representing files and fp is a variable of FILE type  
D. FILE is a stream

Explanation: fp is a pointer of FILE type and FILE is a structure that store following information about opened file

74. Which of the following methods can be used to open a file in file handling?

A. Using Open ( )  
B. Constructor method  
C. Destructor method  
**D. Both A and B**

View Answer

Ans : D

Explanation: Both A and B methods can be used to open a file in file handling.

75. Which operator is used to insert the data into file?

A. >>  
**B. <<**C. <  
D. None of the above

76. Which is correct syntax ?

A. myfile:open ("example.bin", ios::out);  
**B. myfile.open ("example.bin", ios::out);**C. myfile::open ("example.bin", ios::out);  
D. myfile.open ("example.bin", ios:out);

77. What is the output of this program?  
Note:Includes all required header files

using namespace std;

int main ()

{

int l;

char \* b;

ifstream i;

i.open ("find.txt", ios :: binary );

i.seekg (0, ios :: end);

l = i.tellg();

i.seekg (0, ios :: beg);

b = new char [l];

i.read (b, l);

i.close();

cout.write (b, l);

delete[] b;

return 0;

}

A. Error  
B. find  
C. This is find  
**D. Runtime error**

Explanation: In this program, if the file exist, it will read the file. Otherwise it will throw an exception. A runtime error will occur because the value of the l variable will be ""-1"" if file doesn't exist and in line 13 we are trying to allocate an array of size ""-1"".

78. What is the output of this program?

Note:Includes all required header files

using namespace std;

int main ()

{

char fine, course;

cout << "Enter a word: ";

fine = cin.get();

cin.sync();

course = cin.get();

cout << fine << endl;

cout << course << endl;

return 0;

}

A. course  
B. fine  
**C. Returns fine 2 letter or number from the entered word**D. None of the mentioned

Explanation: In this program, We are using the sync function to return the fine two letters of the entered word.

79. ios::trunc is used for ?

A. If the file is opened for output operations and it already existed, no action is taken.  
B. If the file is opened for output operations and it already existed, then a new copy is created.  
**C. If the file is opened for output operations and it already existed, its previous content is deleted and replaced by the new one.**D. None of the above

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81. Which keyword is used to handle the expection?

A. Try  
B. Throw  
**C. Catch**D. None of the above

Explanation: Catch keyword is used to handle the expection

82. Which is used to throw a exception?

A. Try  
**B. Throw**C. Catch  
D. None of the above

Explanation: Throw is used to throw a exception.

83. Which exception is thrown by dynamic\_cast?

**A. bad\_cast**B. bad\_typeid  
C. bad\_exception  
D. bad\_alloc

Explanation: bad\_cast exception is thrown by dynamic\_cast.

84. How do define the user-defined exceptions?

**A. Inherting & overriding exception class functionlity**  
B. Overriding class functionlity  
C. Inherting class functionlity  
D. None of the above

Explanation: By using Inherting & overriding exception class functionlity

85. We can prevent a function from throwing any exceptions.

**A. TRUE**B. FALSE  
C. May Be  
D. Can't Say

Explanation: True, We can prevent a function from throwing any exceptions.

86. In nested try block, if inner catch handler gets executed, then \_\_\_\_\_\_\_\_\_\_?

A. Program execution stops immediately.  
B. Outer catch handler will also get executed.  
C. Compiler will jump to the outer catch handler and then executes remaining executable statements of main().  
**D. Compiler will execute remaining executable statements of outer try block and then the main().**

Explanation: In nested try block, if inner catch handler gets executed, then Compiler will execute remaining executable statements of outer try block and then the main().

87. Return type of uncaught\_exception() is \_\_\_\_\_\_\_\_\_\_\_.

A. int  
**B. bool**C. char \*  
D. double

Explanation: Return type of uncaught\_exception() is bool.

88. Which of the following statements are true about Catch handler? i) It must be placed immediately after try block T. ii) It can have multiple parameters. iii) There must be only one catch handler for every try block. iv) There can be multiple catch handler for a try block T. v) Generic catch handler can be placed anywhere after try block.

A. Only i, iv, v  
B. Only i, ii, iii  
**C. Only i, iv**D. Only i, ii

Explanation: Only i, iv statements are true about Catch handler.

89. If inner catch handler is not able to handle the exception then\_\_\_\_\_\_\_\_\_\_ .

A. Compiler will look for outer try handler  
B. Program terminates abnormally  
**C. Compiler will check for appropriate catch handler of outer try block**D. None of the above

Explanation: If inner catch handler is not able to handle the exception then Compiler will check for appropriate catch handler of outer try block.

90. Which type of program is recommended to include in try block?

A. Static memory allocation  
**B. Dynamic memory allocation**C. Const reference  
D. Pointer

Explanation: While during dynamic memory allocation, Your system may not have sufficient resources to handle it, So it is better to use it inside the try block.

91. Which is the correct statement anout operator overloading in C++?.

A. Only arithmetic operators can be overloaded  
**B. Associativity and precedence of operators does not change**C. Precedence of operators are changed after overlaoding  
D. Only non-arithmetic operators can be overloaded

Explanation: Both arithmetic and non-arithmetic operators can be overloaded. Priority and affiliation of operators remain before and after operator overloading.

92. Which of the following operators cannot be overloaded?

A. .\* (Pointer-to-member Operator )  
B. :: (Scope Resolution Operator)  
C. .\* (Pointer-to-member Operator )  
**D. All of the above**

Explanation: All of the above operator cannot be overloaded.

93. While overloading binary operators using member function, it requires \_\_\_ argument?

A. 2  
**B. 1**C. 0  
D. 3

Explanation: While overloading binary operators using member function, it requires 0 argument.

94. Which of the following operators should be preferred to overload as a global function rather than a member method?

A. Postfix ++  
B. Comparison Operator  
**C. Insertion Operator <<**D. prefix ++

Explanation: Insertion Operator should be preferred to overload as a global function rather than a member method.

95. Which of the following operator functions cannot be global, i.e., must be a member function.

A. new  
B. delete  
C. Converstion Operator  
**D. All of the above**

96. Which of the following is correct option?

**A. x = 5, y = 10**B. x = 10, y = 5  
C. Compile Error  
D. x = 5, y = 5

Explanation: This function call is a simple example of operator overloading. The function call operator, when overloaded, does not modify how the function is called. Rather, it modifies how to interpret the operator when applied to objects of a given type.

97. Which of the following is correct option?

A. x = 15, y = 3  
**B. x = 3, y = 15**C. Compile Error  
D. x = 15, y = 15

Explanation: This function call is a simple example of operator overloading. The function call operator, when overloaded, does not modify how the function is called. Rather, it modifies how to interpret the operator when applied to objects of a given type.

98. Which of the following is correct option?

A. lets(int) called  
B. lets(lfc 2) called  
**C. Compiler Error: Ambiguous call to lets()**D. No error and No output

Explanation: The class lfc has two conversion operators overloaded, int and lfc1. And there are two lets() for int and lfc1.

99. Which of the following is the correct order involves in the process of operator overloading. i) Define the operator function to implement the required operations. ii) Create a class that defines the data type that is to be used in the overloading operation. iii) Declare the operator function op() in the public part of the class.

A. 1-i, 2-ii, 3-iii  
**B. 1-ii, 2-iii, 3-i**C. 1-ii, 2-i, 2-iii  
D. 1-iii, 2-ii, 3-i

Explanation: 1-ii, 2-iii, 3-i is the correct order involves in the process of operator overloading.

100. Which of the following is correct option?

A. Compiler Error  
**B. 8 10**C. 8 8  
D. 10 8

Explanation: Note that the class LFC1 has as conversion operator overloaded, so an object of LFC1 can be converted to that of LFC. Also, class LFC has a constructor which can be called with single integer argument, so an int can be converted to LFC.