1. What will be the output for the given set of code?

```
namespace ConsoleApplication4
{
    abstract class A
    {
        public int i;
        public abstract void display();
    }
    class B: A
    {
        public  int j;
        public int sum;
        public override void display()
        {
            sum = i + j;
            Console.WriteLine(+i + "\n" + +j);
            Console.WriteLine("sum is:"
+sum);
        }
    }
    class Program
    {
        static void Main(string[] args)
        {
            A obj = new B();
            obj.i = 2;
            B obj1 = new B();
            obj1.j = 10;
            obj.display();
            Console.ReadLine();
        }
    }
}
```

   A. 2, 10 12

   B. 0, 10 10

   C. 2, 0 2

   D. 0, 0 0

2. In Inheritance concept, which of the following members of base class are accessible to derived class members?

   A. static

   B. protected

   C. private

   D. shared

3. What would be output for the set of code?

```
class maths
{
    public int x;
    public double y;
    public int add(int a, int b)
    {
        x = a + b;
        return x;
    }
    public int add(double c, double d)
    {
        y = c + d;
        return (int)y;
    }
    public maths()
    {
        this.x = 0;
        this.y = 0;
    }
}
class Program
{
    static void Main(string[] args)
    {
        maths obj = new maths();
        int a = 4;
        double b = 3.5;
        obj.add(a, a);
        obj.add(b, b);
        Console.WriteLine(obj.x + " " + obj.y);
        Console.ReadLine();
    }
}
```

   A. 4, 3.5

   B. 8, 0

   C. 7.5, 8

   D. 8, 7

4. What will be the output for the given set of code?

```
class A
{
    public int i;
    public void display()
    {
        Console.WriteLine(i);
    }
}
class B: A
{
    public int j;
    public void display()
    {
```

```
        Console.WriteLine(j);
    }
}
class Program
{
    static void Main(string[] args)
    {
        B obj = new B();
        obj.i = 1;
        obj.j = 2;
        obj.display();
        Console.ReadLine();
    }
}
```

A. 0

B. 2

C. 1

D. Compile time error

5. What will be the correct output for the given code snippet?

```
class maths
{
public int fact(int n)
    {
        int result;
        if (n == 1)
        return 1;
        result = fact(n - 1) * n;
        return result;
    }
}
class Output
{
    static void main(String args[])
    {
        maths obj = new maths() ;
        Console.WriteLine(obj.fact(4)*obj.fact(2));
    }
}
```

A. 64

B. 60

C.120

D. 48

6. Can the method add() be overloaded in the following ways in C#?

public int add() { }

public float add(){ }

A. True

B. False

C. None of the mentioned.

D. None of the Above

7. Which of the following statements is correct about constructors in C#.NET?

A. A constructor cannot be declared as private

B. A constructor cannot be overloaded

C. A constructor can be a static constructor

D. None of the mentioned

8. Select wrong statement about destructor in C#?

A. A class can have one destructor only

B. Destructors cannot be inherited or overloaded

C. Destructors can have modifiers or parameters

D. All of above mentioned

9. Output from following set of code ?

```
class sample
{
    int i;
    double k;
    public sample (int ii, double kk)
    {
        i = ii;
        k = kk;
        double j = (i) + (k);
        Console.WriteLine(j);
    }
    ~sample()
    {
        double j = i - k;
        Console.WriteLine(j);
    }
}
class Program
{
    static void Main(string[] args)
    {
        sample s = new sample(8, 2.5);
```

```
        Console.ReadLine();
    }
}
```

A. 0 0

B. 10.5 0

C. Compile time error

D. 10.5 5.5

10. Which of following statements about objects in "C#• is correct?

A. Everything you use in C# is an object, including Windows Forms and controls ✔

B. Objects have methods and events that allow them to perform actions ✔

C. All objects created from a class will occupy equal number of bytes in memory ✔

All of the above

11. "A mechanism that binds together code and data in manipulates, and keeps both safe from outside interference and misuse.In short it isolates a particular code and data from all other codes and data. A well-defined interface controls the access to that particular code and data.

A. Abstraction

B. Polymorphism

C. Inheritance

D. Encapsulation

12. What is the output for the following set of code :

```
static void Main(string[] args)
{
    int i = 10;
    double d = 35.78;
    fun(i);
    fun(d);
    Console.ReadLine();
}
static void fun(double d)
{
    Console.WriteLine(d);
}
```

A. 35.78 10

B. 10 35.00

C. 10 35.78

D. None of the mentioned

13. How many values does a function return?

A. 0

B. 2

C. 1

D. any number of values

14. Select correct differences between '=' and '==' in C#.

A. '==' operator is used to assign values from one variable to another variable '=' operator is used to compare value between two variables

B. '=' operator is used to assign values from one variable to another variable '==' operator is used to compare value between two variables

C. No difference between both operators

D. None of the mentioned

15. Which of the following is shared structure of a set of similar objects?

A.  Encapsulation
B.   A Class
C.  Inheritance
D.  None of Above

16. In oops public, private & protected are ........

A.  Classes
B.  Access Modifiers
C.  Interfaces
D.  Method signature

17. A private member of a class is visible to ..............

A. every where
B. in sub class
C. members to same package
D. only members of same class

18. Which keyword is used to inherit a class or abstract class?

*Error pq*

A. extends
B. extend
C. implement
D. inherit

135. If members of a super class are public, then_____

A. All those will be available in subclasses
B. None of those will be available in subclasses
C. Only data members will be available in subclass
D. Only member functions will be available in subclass

20. Which of following is shared structure of a set of similar objects

A. Encapsulation

B. A Class

C. Inheritance

D. None of Above

21. Which of following does not have a body

A. An Interface

B. A Class

C. An Abstract Method

D. none of above

22. In oops public, private & protected are

A. Classes

B. Access Modifiers/ specifier

C. Interfaces

D. Method signature

23. A private member of a class is visible to

24. Which of the following statements is correct?

A. Procedural Programming paradigm is different than structured programming paradigm.

B. Object Oriented Programming paradigm stresses on dividing the logic into smaller parts and writing procedures for each part.

C. Classes and objects are corner stones of structured programming paradigm.

D. Object Oriented Programming paradigm gives equal importance to data and the procedures that work on the data.

25. Which of the following is an abstract data type?

A. Double

B. String

C. Int

D. Class

26. Can we overload constructor in derived class?

A. Yes

B. No

27. Which of the following is not related to OOP?

A. Class and Object

B. Constructor and Destructor

C. Structure and Union

D. Inheritance and Polymorphism

28. We can not create instance of

A. Anonymous class

B. Nested class

C. Parent class

D. Abstract class

29. Constructor can return a value

A. True

B. False

30. Which Feature of OOP encourages the code reusability?

A. Polymorphism

B. Inheritance

C. Abstraction

D. Encapsulation

31. How many catch blocks you can use with single Try block?

A. Only 2

B. Only 1

C. Maximum 256

D. As many as required

32. The principle of abstraction is used to ..................

A. reduce duplication of information
B. achieve OOPS
C. remove longer codes
D. None of above

33. ............. violates the definition of encapsulation.

A. Public variables
B. Local variables
C. Array variables
D. Global variables

34. Which feature of OOPS described the reusability of code?

A. Inheritance
B. Abstraction

C. Polymorphism
D. Encapsulation

35. Which feature of OOP indicates code reusability?

A. Abstraction
B. Polymorphism
C. Encapsulation
D. Inheritance

36. Which among the following doesn't come under OOP concept?
a) Data hiding
b) Message passing
c) Platform independent
d) Data binding

37. In multilevel inheritance, which is the most significant feature of OOP used?
a) Code efficiency
b) Code readability
c) Flexibility
d) Code reusability

38. What is encapsulation in OOP?
a) It is a way of combining various data members and member functions that operate on those data members into a single unit
b) It is a way of combining various data members and member functions into a single unit which can operate on any data
c) It is a way of combining various data members into a single unit
d) It is a way of combining various member functions into a single unit

39. Which of the following is not true about polymorphism?
a) Helps in redefining the same functionality
b) Increases overhead of function definition always
c) It is feature of OOP
d) Ease in readability of program

40. What is an abstraction in object-oriented programming?
a) Hiding the implementation and showing only the features
b) Hiding the important data
c) Hiding the implementation
d) Showing the important data

41. In which access should a constructor be defined, so that object of the class can be created in any function?
a) Any access specifier will work
b) Private
c) Public
d) Protected

42. Which among the following represents correct constructor?
a) –classname()
b) classname()
c) ()classname
d) ~classname()

43. Which access specifier is usually used for data members of a class?
a) Protected
b) Private
c) Public
d) Default

44. Which feature of OOP reduces the use of nested classes?
a) Inheritance
b) Binding
c) Abstraction
d) Encapsulation

45. Which type of members can't be accessed in derived classes of a base class?
a) All can be accessed
b) Protected
c) Private
d) Public

46. Which among the following best describes the Inheritance?
a) Using the data and functions into derived segment
b) Using already defined functions in a programming language
c) Using the code already written once ✔
d) Copying the code already written

47. Where is the memory allocated for the objects?
a) Cache
b) ROM

c) HDD
d) RAM

48. Which of the following best describes member function overriding?
a) Member functions having the same name in derived class only
b) Member functions having the same name and different signature inside main function
c) Member functions having the same name in base and derived classes
d) Member functions having the same name in base class only

49. Encapsulation and abstraction differ as _____
a) Hiding and hiding respectively
b) Binding and Hiding respectively
c) Hiding and Binding respectively
d) Can be used any way

50. Which feature of OOP is exhibited by the function overriding?
a) Polymorphism
b) Encapsulation
c) Abstraction
d) Inheritance

51. If data members are private, what can we do to access them from the class object?
a) Private data members can never be accessed from outside the class
b) Create public member functions to access those data members
c) Create private member functions to access those data members
d) Create protected member functions to access those data members

52. Which among the following is not a necessary condition for constructors?
a) Its name must be same as that of class
b) It must not have any return type
c) It must contain a definition body
d) It can contains arguments

53. If in multiple inheritance, class C inherits class B, and Class B inherits class A. In which sequence are their destructors called if an object of class C was declared?
a) ~A() then ~B() then ~C()

b) ~C() then ~A() then ~B()
c) ~C() then ~B() then ~A()
d) ~B() then ~C() then ~A()

54. Instance of which type of class can't be created?
a) Parent class
b) Abstract class
c) Anonymous class
d) Nested class

55. Which feature can be implemented using encapsulation?
a) Polymorphism
b) Overloading
c) Inheritance
d) Abstraction

56. Size of a class is _____
a) Sum of the size of all the variables declared inside the class
b) Sum of the size of all the variables along with inherited variables in the class
c) Size of the largest size of variable
d) Classes doesn't have any size

57. Which syntax for class definition is wrong?
a) class student{ };
b) student class{ };
c) class student{ public: student(int a){ } };
d) class student{ student(int a){} };

58. Which of the following pairs are similar?
a) Class and object
b) Class and structure
c) Structure and object
d) Structure and functions

59. Which among the following is false for class features?
a) Classes may/may not have both data members and member functions
b) Class definition must be ended with a colon
c) Class can have only member functions with no data members
d) Class is similar to union and structures

60. Instance of which type of class can't be created?
a) Anonymous class
b) Nested class

c) Parent class
d) Abstract class

61.A _____ is a description of a set of objects that share the same attributes, operations, relationships, and semantics.
a) Structure
b) Class
c) Constructor
d) Function

62. A _____ is a special member function whose task is to initialize the objects of its class.
a) Constructor
b) Destructor
c) Selector
d) Iterator

63. The constructors that can take arguments are called _____
a) Default Constructor
b) Copy Constructor
c) Parameterized Constructor
d) Dynamic Constructor

64. Which definition best describes an object?
a) Instance of a class
b) Instance of itself
c) Child of a class
d) Overview of a class

65. How many objects can be declared of a specific class in a single program?
a) 32768
b) 127
c) 1
d) As many as you want

66. Which among the following is false?
a) Object must be created before using members of a class
b) Memory for an object is allocated only after its constructor is called
c) Objects can't be passed by reference
d) Objects size depends on its class data members

67. The object can't be _____
a) Passed by reference
b) Passed by value
c) Passed by copy
d) Passed as function

68. Functions can't return objects.
a) True
b) False

69. How members of an object are accessed?
a) Using dot operator/period symbol
b) Using scope resolution operator
c) Using member names directly
d) Using pointer only

70. Object declared in main() function _____
a) Can be used by any other function
b) Can be used by main() function of any other program
c) Can't be used by any other function
d) Can be accessed using scope resolution operator

71. If a function can perform more than 1 type of tasks, where the function name remains same, which feature of OOP is used here?
a) Encapsulation
b) Inheritance
c) Polymorphism
d) Abstraction

72. If different properties and functions of a real world entity is grouped or embedded into a single element, what is it called in OOP language?
a) Inheritance
b) Polymorphism
c) Abstraction
d) Encapsulation

73. Which among the following doesn't come under OOP concept?
a) Platform independent
b) Data binding
c) Message passing
d) Data hiding

74. Which feature may be violated if we don't use classes in a program?
a) Inheritance can't be implemented
b) Object must be used is violated
c) Encapsulation only is violated
d) Basically all the features of OOP gets violated

75. Exception handling is a feature of OOP.
a) True
b) False

76. Which among the following best describes encapsulation?
a) It is a way of combining various data members into a single unit
b) It is a way of combining various member functions into a single unit
c) It is a way of combining various data members and member functions into a single unit which can operate on any data
d) It is a way of combining various data members and member functions that operate on those data members into a single unit

77. While using encapsulation, which among the following is possible?
a) Code modification can be additional overhead
b) Data member's data type can be changed without changing any other code
c) Data member's type can't be changed, or whole code have to be changed
d) Member functions can be used to change the data type of data members

78. Which among the following violates the principle of encapsulation almost always?
a) Local variables
b) Global variables
c) Public variables
d) Array variables

79. Which among the following would destroy the encapsulation mechanism if it was allowed in programming?
a) Using access declaration for private members of base class
b) Using access declaration for public members of base class
c) Using access declaration for local variable of main() function
d) Using access declaration for global variables

80. Which among the following best defines abstraction?
a) Hiding the implementation
b) Showing the important data
c) Hiding the important data
d) Hiding the implementation and showing only the features

81. Hiding the implementation complexity can _____
a) Make the programming easy

b) Make the programming complex
c) Provide more number of features
d) Provide better features

82. Abstraction can apply to
_____
a) Control and data
b) Only data
c) Only control
d) Classes

83. Abstraction principle
includes_____
a) Use abstraction at its minimum
b) Use abstraction to avoid longer codes
c) Use abstraction whenever possible to avoid duplication
d) Use abstraction whenever possible to achieve OOP

84. If two classes combine some private data members and provides public member functions to access and manipulate those data members. Where is abstraction used?
a) Using private access specifier for data members
b) Using class concept with both data members and member functions
c) Using public member functions to access and manipulate the data members
d) Data is not sufficient to decide what is being used

85. Which among the following is not true for polymorphism?
a) It is feature of OOP
b) Ease in readability of program
c) Helps in redefining the same functionality
d) Increases overhead of function definition always

86. Which among the following is called first, automatically, whenever an object is created?
a) Class
b) Constructor
c) New
d) Trigger

87. Which among the following is not a necessary condition for constructors?
a) Its name must be same as that of class
b) It must not have any return type
c) It must contain a definition body
d) It can contains arguments

88. In which access should a constructor be defined, so that object of the class can be created in any function?
a) Public
b) Protected
c) Private
d) Any access specifier will work

89. How many types of constructors are available for use in general (with respect to parameters)?
a) 2
b) 3
c) 4
d) 5

90. If a programmer defines a class and defines a default value parameterized constructor inside it.
He has not defined any default constructor. And then he try to create the object without passing arguments, which among the following will be correct?

a) It will not create the object (as parameterized constructor is used)

b) It will create the object (as the default arguments are passed)

c) It will not create the object (as the default constructor is not defined)

d) It will create the object (as at least some constructor is defined)

91. Default constructor must be defined, if parameterized constructor is defined and the object is to be created without arguments.
a) True
b) False

92. If class C inherits class B. And B has inherited class A. Then while creating the object of class C, what will be the sequence of constructors getting called?
a) Constructor of C then B, finally of A
b) Constructor of A then C, finally of B
c) Constructor of C then A, finally B
d) Constructor of A then B, finally C

93. Which object will be created first?

```
class student
{
    int marks;
};
student s1, s2, s3;
```

a) s1 then s2 then s3
b) s3 then s2 then s1

c) s2 then s3 then s1
d) all are created at same time

94. For constructor overloading, each constructor must differ in _____ and _____
a) Number of arguments and type of arguments
b) Number of arguments and return type
c) Return type and type of arguments
d) Return type and definition

95. Which among the following best describes constructor overloading?
a) Defining one constructor in each class of a program
b) Defining more than one constructor in single class
c) Defining more than one constructor in single class with different signature
d) Defining destructor with each constructor

96. Can constructors be overloaded in derived class?
a) Yes, always
b) Yes, if derived class has no constructor
c) No, programmer can't do it
d) No, never

97. Does constructor overloading include different return types for constructors to be overloaded?
a) Yes, if return types are different, signature becomes different
b) Yes, because return types can differentiate two functions
c) No, return type can't differentiate two functions
d) No, constructors doesn't have any return type

98. Which among the following is possible way to overload constructor?
a) Define default constructor, 1 parameter constructor and 2 parameter constructor
b) Define default constructor, zero argument constructor and 1 parameter constructor
c) Define default constructor, and 2 other parameterized constructors with same signature
d) Define 2 default constructors

99. Which among the following is false for a constructor?
a) Constructors doesn't have a return value

b) Constructors are always user defined
c) Constructors are overloaded with different signature
d) Constructors may or may not have any arguments being accepted

100. When is the constructor called for an object?
a) As soon as overloading is required
b) As soon as class is derived
c) As soon as class is created
d) As soon as object is created

101. Why do we use constructor overloading?
a) To use different types of constructors
b) Because it's a feature provided
c) To initialize the object in different ways
d) To differentiate one constructor from another

102. If programmer have defined parameterized constructor only, then _____
a) Default constructor will not be created by the compiler implicitly
b) Default constructor will be created by the compiler implicitly
c) Default constructor will not be created but called at runtime
d) Compile time error

103. Which constructor will be called from the object obj2 in the following program?

```
class A
{
        int i;
        A()
        {
                i=0;
        }
        A(int x)
        {
                i=x+1;
        }
        A(int y, int x)
        {
                i=x+y;
        }
};
A obj1(10);
A obj2(10,20);
A obj3;
```

a) A(int x)
b) A(int y)
c) A(int y, int x)
d) A(int y; int x)

104. Which is correct syntax?
a) classname objectname= new() integer;
b) classname objectname= new classname;
c) classname objectname= new classname();
d) classname objectname= new() classname();

105. Default constructor initializes all data members as _____
a) All numeric member with some garbage values and string to random string
b) All numeric member with some garbage values and string to null
c) All numeric member with zero and strings to random value
d) All numeric member with zero and strings to null

106. Which among the following best describes the constructors?
a) A function which is called whenever an object is referenced
b) A function which is called whenever an object is created to initialize the members
c) A function which is called whenever an object is assigned to copy the values
d) A function which is called whenever an object is to be given values for members

107. Which among the following best describes destructor?
a) A function which is called just before the objects are destroyed
b) A function which is called after each reference to the object
c) A function which is called after termination of the program
d) A function which is called before calling any member function

108. Which among the following is true?
a) First the constructor of parent classes are called in sequence of inheritance
b) First the constructor of child classes are called in the sequence of inheritance
c) First constructor called is of the object being created
d) Constructors are called randomly

109. What is the sequence of destructors call?
a) Same order as that of the constructors call
b) Random order
c) According to the priority
d) Revere of the order of constructor call

110. The destructors _____
a) Can have maximum one argument
b) Can't have any argument
c) Can have more than one argument
d) Can't have more than 3 arguments

111. Number of destructors called are _____
a) Always equal to number of constructors called
b) Always less than the number of constructors called
c) Always greater than the number of constructors called
d) Always less than or equal to number of constructors

112. If a class have 4 constructors then it must have 4 destructors also.
a) True
b) False

113. Which among the following is true for destructors?
a) Destructors can be overloaded
b) Destructors can be define more than one time
c) Destructors can't be overloaded
d) Destructors are overloaded in derived classes

114. The constructor _____
a) Have a return type
b) May have a return type
c) Of derived classes have return type
d) Doesn't have a return type

115. The destructors _____
a) Have a return type
b) May have a return type
c) Of derived classes have return type
d) Doesn't have a return type

116. The destructor can be called before the constructor if required.
a) True
b) False

117. Which among the following describes a destructor?
a) A special function that is called to free the resources, acquired by the object
b) A special function that is called to delete the class
c) A special function that is called anytime to delete an object
d) A special function that is called to delete all the objects of a class

118. When a destructor is called?
a) After the end of object life
b) Anytime in between object's lifespan
c) At end of whole program
d) Just before the end of object life

119. When is the destructor of a global object called?
a) Just before end of program
b) Just after end of program
c) With the end of program
d) Anytime when object is not needed

120. Destructors doesn't accept parameters.
a) True
b) False

121. Which among the following is correct for the destructors concept?
a) Destructors can be overloaded
b) Destructors can have only one parameter at maximum
c) Destructors are always called after object goes out of scope
d) There can be only one destructor in a class

121. If a function has to be called only by using other member functions of the class, what should be the access specifier used for that function?
a) Private
b) Protected

c) Public
d) Default

122. Which among the following is correct to call a private member from outside the class?
a) object.memberfunction( parameters );
b) object->memberfunction( parameters );
c) object->memberfunction( parameteres);
or object.memberfunction( parameters );
d) Not possible

123. Which access specifier is most secure during inheritance?
a) Private
b) Default
c) Protected
d) Private and default

124. Private member functions can be overloaded.
a) True
b) False

125. Which among the following is true?
a) Private member functions can't be overloaded
b) Private member functions can be overridden
c) Private member functions can't be overloaded with a public member
d) Private member function can't be overridden

126. Which among the following is correct?
a) Private specifier must be used before public specifier

b) Private specifier must be used before protected specifier

c) Private specifier must be used first

d) Private specifier can be used anywhere in class

127. Which among the following can restrict class members to get inherited?
a) Private
b) Protected
c) Public
d) All three

128. Which specifier allows a programmer to make the private members which can be inherited?
a) Private
b) Default
c) Protected
d) Protected and default

129. Which access specifier should be used so that all the parent class members can be inherited and accessed from outside the class?
a) Private
b) Default or public
c) Protected or private
d) Public

130. Which access specifier is usually used for data members of a class?
a) Private
b) Default
c) Protected
d) Public

131. Which specifier should be used for member functions of a class?
a) Private
b) Default
c) Protected
d) Public

132. Which among the following best describes the protected specifier?
a) Members are most secure and can't be used outside class
b) Members are secure but can be used outside the class
c) Members are secure as private, but can be inherited
d) Members are secure like private, but can't be inherited

132. If a constructor is defined in protected access, then?
a) It's instance can be created inside the subclasses
b) It's instance can be created anywhere in the program
c) It's instance can be created inside the subclasses and main() function
d) It's instance can be created inside the parent class only

133. If the members have to be accessed from anywhere in the program and other packages also, which access specifier should be used?
a) Public
b) Private
c) Protected
d) Default

134. Which among the following have least security according to the access permissions allowed?
a) Private
b) Default
c) Protected
d) Public