

## Object Oriented Programming Concepts (OOP)

1. (UGCNET-Nov2017-II-13) A member function can always access the data in ..... , (in C++).
- (1) the class of which it is member
  - (2) the object of which it is a member
  - (3) the public part of its class
  - (4) the private part of its class

Answer: 1

2. (UGCNET-AUG2016-II-13) If a function is friend of a class, which one of the following is wrong?
- (A) A function can only be declared a friend by a class itself.
  - (B) Friend functions are not members of a class, they are associated with it.
  - (C) Friend functions are members of a class.
  - (D) It can have access to all members of the class, even private ones.

Answer: C

3. UGCNET-Dec2014-II-13) Which of the following is not a member of class ?
- (A) Static function
  - (B) Friend function
  - (C) Const function
  - (D) Virtual function

Answer: B

4. .... allows to create classes which are derived from other classes, so that they automatically include some of its "parent's" members, plus its own members.
- (A) Overloading
  - (B) Inheritance
  - (C) Polymorphism
  - (D) Encapsulation

Answer: B

UGCNET-June2015-II-12

5. (UGCNET-June2010-II-13) Member of a class specified as ..... are accessible only to method of the class.
- (A) private
  - (B) public
  - (C) protected
  - (D) derive

Answer: A

6. (UGC net paper-ii-june2010 No: 14) Match the following:

**Set-I**

- (a) Garbage collection in
- (b) Nameless object
- (c) Template support
- (d) A forward reference
- (e) Derived class inherits from base class

**Set-II**

1. Java
2. generic programming
3. defines a class
4. member function
5. within a statement

**Codes :**

- (a) (b) (c) (d) (e)
- (A) 1 5 4 2 3
- (B) 1 5 2 3 4
- (C) 5 1 2 3 4
- (D) 5 4 3 1 2

**Answer: B**

7. (UGCNET-June2010-II-15) The data type created by the data abstraction process is called
- (A) class
  - (B) structure
  - (C) abstract data type
  - (D) user defined data type

**Answer: C**

8. (UGCNET-dec2009-ii-15) Which of the statements are true?
- I. Function overloading is done at compile time.
  - II. Protected members are accessible to the member of derived class.
  - III. A derived class inherits constructors and destructors.
  - IV. A friend function can be called like a normal function.
  - V. Nested class is a derived class.
- (A) I, II, III
  - (B) II, III, V
  - (C) III, IV, V
  - (D) I, II, IV

**Answer: D**

9. (UGCNET-dec2008-ii-27) A copy constructor is invoked when:
- (A) a function returns by value
  - (B) an argument is passed by value
  - (C) a function returns by reference
  - (D) none of the above

**Answer: B**

10. (UGCNET-dec2008-ii-29) How many constructors can a class have?
- (A) zero
  - (B) 1
  - (C) 2
  - (D) any number

**Answer: D**

11. (UGCNET-june2008-ii-15) Which of the following is true?

- (A) A “static” member of a class cannot be inherited by its derived class.
- (B) A “static” member of a class can be initialized only within the class it is a member of.
- (C) A “static” member of a class can be initialized before an object of that class is created.
- (D) Since “static” member of a class is actually a global element, it does not require a class/object qualifier to access it independently of class/object.

Answer: C

12. (UGC netpaper-2-june-2007 No: 13) What keyword in class specification helps to hide data:

- (A) Public
- (B) Private
- (C) Static
- (D) Void

Answer: B

13. (UGC net paper-2-dec-2005 No 13) Data members and member function of a class by default is respectively:

- (A) private and public
- (B) public
- (C) public and private
- (D) private

Answer: D

14. (UGCNET-June2014-III-13) Match the following with respect to I/O classes in object oriented programming :

**List – I**

**List – II**

- a. fopen()
- b. fclose()
- c. ferror()
- d. feof()
- i. returns end of file
- ii. return for any problem report
- iii. returns 0
- iv. returns a file pointer

**Codes :**

- a b c d
- (A) iv i ii iii
- (B) iii i iv ii
- (C) ii iii iv i
- (D) iv iii i ii

Answer: A

15. (UGCNET-June2016-II-13) Which one of the following is correct, when a class grants friend status to another class?

- (A) The member functions of the class generating friendship can access the members of the friend class.
- (B) All member functions of the class granted friendship have unrestricted access to the members of the class granting the friendship.
- (C) Class friendship is reciprocal to each other
- (D) There is no such concept.

Answer: B

16. (UGCNET-June2016-II-14) When a method in a subclass has the same name and type signatures as a method in the superclass, then the method in the subclass ..... the method in the superclass.

- (A) Overloads
- (B) Friendships
- (C) Inherits
- (D) Overrides

Answer: D

17. (UGCNET-dec2009-ii-13 ) A ..... is a special method used to initialize the instance variable of a class.

- (A) Member function
- (B) Destructor
- (C) Constructor
- (D) Structure

Answer: C

18. (UGCNET-dec2009-ii-14) Encapsulation is

- (A) Dynamic binding
- (B) A mechanism to associate the code and data.
- (C) Data abstraction
- (D) Creating new class

Answer: B

19. (UGC net paper2-june-2009-p2 No 17) The friend functions are used in situations where:

- (A) We want to have access to unrelated classes
- (B) Dynamic binding is required
- (C) Exchange of data between classes to take place
- (D) None of the above

Answer: C

20. (UGC NET Paper-2 June 2007 No 15) Runtime polymorphism can be achieved by:

- (A) Accessing virtual function through the pointer of the base class
- (B) Accessing virtual function through the object
- (C) The derived class
- (D) None of these

Answer: A

21. (UGC NET Paper-2 June 2005 No 14) If a data-item is declared as a protected access specifier then it can be accessed:

- (A) Anywhere in the program
- (B) By the base and derived classes
- (C) Only by base class
- (D) Only by derived class

Answer: B

22. (UGC net paper-ii-dec-2004 No 14) A function object:

- (A) is an instance of a class for which operator () is a member function.

- (B) is an instance of a class for which operator  $\rightarrow$  is a member function.
- (C) is a pointer to any function
- (D) is a member function of a class

Answer: A

23. (UGCNET-June2014-II-44) A friend function can be used to
- (A) avoid arguments between classes.
  - (B) allow access to classes whose source code is unavailable
  - (C) allow one class to access an unrelated class.
  - (D) None of the above

Answer: C

24. (UGCNET-June2011-II-13 ) The goal of operator overloading is
- (A) to help the user of a class
  - (B) to help the developer of a class
  - (C) to help define friend function
  - (D) None of the above

Answer: A

25. (UGCNET-DEC2016-III-38) Given the array of integers 'array' shown below:

13	7	27	2	18	33	9	11	22	8
----	---	----	---	----	----	---	----	----	---

What is the output of the following JAVA statements?

```
int [ ] p = new int [10];
int [ ] q = new int [10];
for (int k = 0; k < 10; k ++){
    p[k] = array [k];
}
q = p;
p[4] = 20;
System.out.println(array [4] + ":" + q[4]);
```

- (1) 20:20
- (2) 18:18
- (3) 18:20
- (4) 20:18

Answer: 3

26. (UGCNET-DEC2016-III-39) Consider the following JAVA program:

```
public class First {
    public static int CBSE (int x) {
        if (x < 100) x = CBSE (x +10);
        return (x - 1);
    }
    public static void main (String[] args){
        System.out.print(First.CBSE(60));
    }
}
```

What does this program print?

- (1) 59
- (2) 95
- (3) 69
- (4) 99

Answer: 2

27. (UGCNET-DEC2016-III-40) Which of the following statement(s) with regard to an abstract class in JAVA is/are TRUE?

- I. An abstract class is one that is not used to create objects.
- II. An abstract class is designed only to act as a base class to be inherited by other classes.

- (1) Only I
- (2) Only II
- (3) Neither I nor II
- (4) Both I and II

Answer: 4

28. (UGC NET CS 2016 Aug – III | Question 37) Constructors have ..... return type.

- (A) void            (B) char
- (C) int             (D) no

Answer: D

29. (UGCNET-June2016-III-40) Which of the following is not a correct statement?

- (A) Every class containing abstract method must be declared abstract.
- (B) Abstract class can directly be initiated with 'new' operator.
- (C) Abstract class can be initiated.
- (D) Abstract class does not contain any definition of implementation.

Answer: B

30. (UGCNET-June2016-III-37) Implicit return type of a class constructor is:

- (A) not of class type itself    (B) class type itself
- (B) a destructor of class type (D) a destructor not of class type

Answer: B

31. (UGCNET-June2016-III-38) It is possible to define a class within a class termed as nested class. There are ..... types of nested classes.

- (A) 2                (B) 3
- (C) 4                (D) 5

Answer: A, C

32. (UGCNET-June2016-III-39) Which of the following statements is correct?

- (A) Aggregation is a strong type of association between two classes with full ownership.
- (B) Aggregation is a strong type of association between two classes with partial ownership.
- (C) Aggregation is a weak type of association between two classes with partial ownership.
- (D) Aggregation is a weak type of association between two classes with full ownership.

Answer: C

33. (UGCNET-June2016-III-40) Which of the following statements is correct?

- (A) Every class containing abstract method must not be declared abstract.
- (B) Abstract class cannot be directly initiated with 'new' operator.
- (C) Abstract class cannot be initiated.
- (D) Abstract class contains definition of implementation.

Answer: B,C

34. (UGCNET-June2016-III-42) When one object reference variable is assigned to another object reference variable then

- (A) a copy of the object is created.
- (B) a copy of the reference is created.
- (C) a copy of the reference is not created.
- (D) it is illegal to assign one object reference variable to another object reference variable.

Answer: B

35. Which of the following is used to make an Abstract class ?

- (A) Making atleast one member function as pure virtual function
- (B) Making atleast one member function as virtual function
- (C) Declaring as Abstract class using virtual keyword
- (D) Declaring as Abstract class using static keyword

Answer: A

36. (UGCNET-Dec2015-III-30) Match the following with reference to object oriented modelling :

**List - I**

**List - II**

- (a) Polymorphism      (i) Picking both operator and attributes with operations appropriate to model an object
- (b) Inheritance      (ii) Hiding implementation details of methods from users of objects
- (c) Encapsulation      (iii) Using similar operations to do similar things
- (d) Abstraction      (iv) Create new classes from existing class

**Codes :**

- (a) (b) (c) (d)
- (A) (iv) (iii) (i) (ii)
- (B) (iii) (iv) (i) (ii)
- (C) (iii) (i) (ii) (iv)
- (D) (iv) (iii) (ii) (i)

Answer: B

37. (UGCNET-Dec2015-III-36) Which of the following is/are correct with reference to Abstract class and interface ?

- (a) A class can inherit only one Abstract class but may inherit several interfaces.
- (b) An Abstract class can provide complete and default code but an interface has no code.

**Codes :**

- (A) (a) is true      (B) (b) is true
- (C) Both (a) and (b) are true (D) Neither (a) nor (b) is true

Answer: C

38. (UGCNET-June2015-III-37) In Java, when we implement an interface method, it must be declared as:

- (A) Private      (B) Protected  
(C) Public      (D) Friend

Answer: C

39. (UGCNET-June2015-III-39) Which one of the following is correct?

- (A) Java applets cannot be written in any programming language  
(B) An applet is not a small program.  
(C) An applet can be run on its own.  
(D) Applets are embedded in another applications.

Answer: D

40. (UGCNET-Dec2014-III-39) Converting a primitive type data into its corresponding wrapper class object instance is called

- (A) Boxing      (B) Wrapping  
(C) Instantiation      (D) Autoboxing

Answer: D

41. (UGCNET-Dec2014-III-41) What is true about UML stereotypes ?

- (A) Stereotype is used for extending the UML language.  
(B) Stereotyped class must be abstract  
(C) The stereotype indicates that the UML element cannot be changed  
(D) UML profiles can be stereotyped for backward compatibility

Answer: A

42. (UGC-NET | UGC NET CS 2014 Dec – III | Question 42) Which method is called first by an applet program ?

- (A) start( )      (B) run( )  
(C) init( )      (D) begin( )

Answer: C

43. (UGCNET-June2014-III-51) The pure object oriented programming language with extensive metadata available and modifiable at run time is

- (A) Small talk  
(B) C++  
(C) Java  
(D) Eiffel

Answer: A

44. (UGCNET-June2014-III-52) Match the following interfaces of Java. Servlet package :

**List – I**

- a. Servlet Config  
b. Servlet Context  
c. Servlet Request

d. Servlet Response

**List – II**

- i. Enables Servlets to log events
- ii. Read data from a client
- iii. Write data to a client
- iv. To get initialization parameters

**Codes :**

- a b c d
- (A) iii iv ii i
  - (B) iii ii iv i
  - (C) ii iii iv i
  - (D) iv i ii iii

Answer: D

45. (UGCNET-June2012-III-70, UGCNET-Sep2013-III-52) Assume that we have constructor function for both Base and Derived classes. Now consider the declaration :

```
main ( )  
Base *p = new Derived;
```

In what sequence, the constructor will be executed?

- (A) Derived class constructor is followed by Base class constructor.
- (B) Base class constructor is followed by Derived class constructor.
- (C) Base class constructor is never called.
- (D) Derived class constructor is never called.

Answer: B

46. (UGCNET-Dec2012-III-48) Functions defined with class name are called as

- (A) Inline function
- (B) Friend function
- (C) Constructor
- (D) Static function

Answer: C

47. (UGC net paper-iii-june2012 No 55) Match the following with respect to java.util.\* class methods :

**List - I**

- (a) Bit Set
- (b) Calendar
- (c) Time zone
- (d) Random

**List - I**

- (i) Time zone getTimezone( )
- (ii) int hashCode( )
- (iii) int nextInt( )
- (iv) Void setID(String tzName)

- (a) (b) (c) (d)
- (A) (ii) (i) (iv) (iii)
  - (B) (iii) (iv) (i) (ii)

- (C) (iv) (iii) (ii) (i)
- (D) (ii) (i) (iii) (iv)

Answer: A

48. (UGCNET-June2012-III-70, UGCNET-Sep2013-III-52) Assume that we have constructor functions for both base class and derived class. Now consider the declaration in main( ). Base
- \* P = New Derived; in what sequence will the constructor be called?
- (A) Derived class constructor followed by Base class constructor.
  - (B) Base class constructor followed by derived class constructor.
  - (C) Base class constructor will not be called.
  - (D) Derived class constructor will not be called.

Answer: B