1. Out of these statements, which ones are incorrect?

a. The Brackets () have the highest precedence

b. The equal to = operator has the lowest precedence

c. The addition operator + and the subtraction operator – have an equal precedence

d. The division operator / has comparatively higher precedence as compared to a multiplication operator

1. What is the range of byte data type in Java?  
   a) -128 to 127  
   b) -32768 to 32767  
   c) -2147483648 to 2147483647  
   d) None of the mentioned
2. Out of these packages, which one contains an abstract keyword?

a. java.util

b. java.lang

c. java.system

d. java.io

1. The remover() method throws which of these exceptions:

a. ObjectNotFoundException

b. IllegalStateException

c. IOException

d. SystemException

1. Out of these classes, which one is used for reading strings and characters in Java from the console?

a. StringReader

b. BufferedReader

c. InputStreamReader

d. BufferedStreamReader

1. Which method can we use in an applet to output a string?

a. transient()

b. drawString()

c. print()

d. display()

1. \_\_\_\_\_\_ file defines dependency in maven.

a) dependency.xml

b) build.xml

c) version.xml

d) pom.xml

1. Which of the following is not a disadvantage to the usage of array?  
   a) Fixed size  
   b) There are chances of wastage of memory space if elements inserted in an array are lesser than the allocated size  
   c) Insertion based on position  
   d) Accessing elements at specified positions
2. What is the time complexity of inserting at the end in dynamic arrays?  
   a) O(1)  
   b) O(n)  
   c) O(logn)  
   d) Either O(1) or O(n)
3. Which of these is not an application of a linked list?  
   a) To implement file systems  
   b) For separate chaining in hash-tables  
   c) To implement non-binary trees  
   d) Random Access of elements
4. Which of the following is not OOPS concept in Java?  
   a) Inheritance  
   b) Encapsulation  
   c) Polymorphism  
   d) Compilation
5. When Overloading does not occur?  
   a) More than one method with same name but different method signature and different number or type of parameters  
   b) More than one method with same name, same signature but different number of signature  
   c) More than one method with same name, same signature, same number of parameters but different type  
   d) More than one method with same name, same number of parameters and type but different signature
6. What will be the output of the following Java code?

class A

{

public int i;

private int j;

}

class B extends A

{

void display()

{

super.j = super.i + 1;

System.out.println(super.i + " " + super.j);

}

}

class inheritance

{

public static void main(String args[])

{

B obj = new B();

obj.i=1;

obj.j=2;

obj.display();

}

}

a) 2 2  
b) 3 3  
c) Runtime Error  
d) Compilation Error

1. Which of these is supported by method overriding in Java?  
   a) Abstraction  
   b) Encapsulation  
   c) Polymorphism  
   d) None of the mentioned
2. What will be the output of the following Java program?

class Alligator

{

public static void main(String[] args)

{

int []x[] = {{1,2}, {3,4,5}, {6,7,8,9}};

int [][]y = x;

System.out.println(y[2][1]);

}

}

a) 2  
b) 3  
c) 7  
d) Compilation Error

1. What will be the output of the following Java program?

class A

{

int i;

public void display()

{

System.out.println(i);

}

}

class B extends A

{

int j;

public void display()

{

System.out.println(j);

}

}

class Dynamic\_dispatch

{

public static void main(String args[])

{

B obj2 = new B();

obj2.i = 1;

obj2.j = 2;

A r;

r = obj2;

r.display();

}

}

a) 1  
b) 2  
c) 3  
d) 4

1. Which of these is a type of stream in Java?  
   a) Integer stream  
   b) Short stream  
   c) Byte stream  
   d) Long stream

1. What will be the output of the following Java program if input given is ‘abcqfghqbcd’?

class Input\_Output

{

public static void main(String args[]) throws IOException

{

char c;

BufferedReader obj = new BufferedReader(new InputStreamReader(System.in));

do

{

c = (char) obj.read();

System.out.print(c);

} while(c != 'q');

}

}

a) abcqfgh  
b) abc  
c) abcq  
d) abcqfghq

1. What will be the output of the following Java program?

class output

{

public static void main(String args[])

{

StringBuffer c = new StringBuffer("Hello");

System.out.println(c.length());

}

}

a) 4  
b) 5  
c) 6  
d) 7

1. Which of these classes are used by Byte streams for input and output operation?  
   a) InputStream  
   b) InputOutputStream  
   c) Reader  
   d) All of the mentioned

1. Write a program to check perfect square in java.
2. Find Prime factors of a number
3. **Find the**Nth**Term of the Fibonacci Series**
4. **Even or Odd number**
5. **Prime number**
6. **Armstrong number in a given range**
7. **Find the prime numbers between 1 to 100**
8. **HCF of two numbers**
9. **LCM of two numbers**
10. **Sorting elements of an array by frequency**
11. **Removing Duplicate elements from an array**
12. What will be the output of the following Java program?
13. import java.util.\*;
14. class Bitset
15. {
16. public static void main(String args[])
17. {
18. BitSet obj = new BitSet(5);
19. for (int i = 0; i < 5; ++i)
20. obj.set(i);
21. obj.clear(2);
22. System.out.print(obj);
23. }
24. }
25. {0, 1, 3, 4}
26. {0, 1, 2, 4}
27. {0, 1, 2, 3, 4}
28. {0, 0, 0, 3, 4}

1. What is Collection in Java?  
   a) A group of objects  
   b) A group of classes  
   c) A group of interfaces  
   d) None of the mentioned

1. Which of these classes is not part of Java’s collection framework?  
   a) Maps  
   b) Array  
   c) Stack  
   d) Queue

1. Which page directive should be used in JSP to generate a PDF page?  
   a) contentType  
   b) generatePdf  
   c) typePDF  
   d) contentPDF
2. Application is instance of which class?  
   a) javax.servlet.Application  
   b) javax.servlet.HttpContext  
   c) javax.servlet.Context  
   d) javax.servlet.ServletContext
3. How to format date from one form to another?  
   a) SimpleDateFormat  
   b) DateFormat  
   c) SimpleFormat  
   d) DateConverter
4. How is Date stored in database?  
   a) java.sql.Date  
   b) java.util.Date  
   c) java.sql.DateTime  
   d) java.util.DateTime
5. How to remove duplicates from List?  
   a) HashSet<String> listToSet = new HashSet<String>(duplicateList);  
   b) HashSet<String> listToSet = duplicateList.toSet();  
   c) HashSet<String> listToSet = Collections.convertToSet(duplicateList);  
   d) HashSet<String> listToSet = duplicateList.getSet();
6. How to sort elements of ArrayList?  
   a) Collection.sort(listObj);  
   b) Collections.sort(listObj);  
   c) listObj.sort();  
   d) Sorter.sortAsc(listObj);
7. What is the difference between length() and size() of ArrayList?  
   a) length() and size() return the same value  
   b) length() is not defined in ArrayList  
   c) size() is not defined in ArrayList  
   d) length() returns the capacity of ArrayList and size() returns the actual number of elements stored in the list
8. What is the worst case complexity of accessing an element in ArrayList?  
   a) O(n)  
   b) O(1)  
   c) O(nlogn)  
   d) O(2)

b

1. When an array is passed to a method, will the content of the array undergo changes with the actions carried within the function?  
   a) True  
   b) False
2. Which statement is true about Java?  
   a) Java is a sequence-dependent programming language  
   b) Java is a code dependent programming language  
   c) Java is a platform-dependent programming language  
   d) Java is a platform-independent programming language
3. Which component is used to compile, debug and execute the java programs?  
   a) JRE  
   b) JIT  
   c) JDK  
   d) JVM
4. Which environment variable is used to set the java path?  
   a) MAVEN\_Path  
   b) JavaPATH  
   c) JAVA  
   d) JAVA\_HOME
5. Which of the following is a type of polymorphism in Java Programming?  
   a) Multiple polymorphism  
   b) Compile time polymorphism  
   c) Multilevel polymorphism  
   d) Execution time polymorphism
6. What will be the output of the following Java program?

class leftshift\_operator

{

public static void main(String args[])

{

byte x = 64;

int i;

byte y;

i = x << 2;

y = (byte) (x << 2);

System.out.print(i + " " + y);

}

}

1. 0 256
2. 0 64
3. 256 0
4. 64 0
5. Disadvantages of linked list representation of binary trees over arrays?  
   a) Randomly accessing is not possible  
   b) Extra memory for a pointer is needed with every element in the list  
   c) Difficulty in deletion  
   d) Random access is not possible and extra memory with every element
6. Which of the following traversing algorithm is not used to traverse in a tree?  
   a) Post order  
   b) Pre order  
   c) Post order  
   d) Randomized