1) Which of these is not a interface in the Collections Framework?

a) Set

b) List

**c) Group**

d) Collection

2)Which of these packages contain all the collection classes?

a) java.net

b) java.awt

c) java.lang

**d) java.util**

3) Which of these classes is not part of Java’s collection framework?

a) Maps

b) Stack

c) Array

**d) Queue**

4) Which collection allows indexed access to its elements, but its methods are not synchronized?

a) Vector

b) TreeMap

c) HashSet

**d) ArrayList**

5) Can elements of a Set be traversed without using Iterator?

**a) Yes**

b) No

6) Collection \_\_\_\_\_\_\_\_\_\_\_\_\_\_

a) inherits the Collections class

**b) inherits the Iterable interface**

c) implements the Serializable interface

d) implements the Traversable interface

7) Which implementation of Iterator can traverse a collection back and forth?

a) Iterator

**b) ListIterator**

c) SetIterator

d) MapIterator

8) The collection is a \_\_\_\_\_\_\_\_\_\_\_\_

**a) framework and interface**

b) framework and class

c) only interface

d) only class

9)List, Set and Queue \_\_\_\_\_\_\_\_\_\_ Collection.

**a) extends**

b) implements

c) both of the above

d) none of the above

10) What is Collection in Java?

**a) A group of objects**

b) A group of interfaces

c) A group of data types

d) A group of classes

11) Which of these methods deletes all the elements from invoking collection?

**a) clear()**

b) reset()

c) delete()

d) refresh()

12) Which of these is an incorrect form of using method max() to obtain a maximum element?

a) max(List c)

b) max(Collection c)

**c) max(Comparator comp)**

d) max(Collection c, Comparator comp)

13) Which of these methods sets every element of a List to a specified object?

**a) fill()**

b) add()

c) set()

d) Complete()

14) Collection stores only ?

**a) object type data**

b) string type data

c) primitive type data

d) All of the above

15) Which type of exception is thrown if you try to add an element to an already full Collection ?

a) ClassCastException

b) NullPointerException

**c) IllegalStateException**

d) IllegalArgumentException

16) What does get(int index) method define by List interface do ?

a) stores an object at the specified index

b) returns a list containing elements between specified index and end in the collection.

**c) returns an object stored at the specified index**

d) none of the above.

17) Which interface restricts duplicate elements?

**a) Set**

b) List

c) Map

d) All of these

18) The accuracy and efficiency of a HashMap can be guaranteed with:

a) override equals method

b) override hashCode method

c) None of these

**d) All of these**

19) Which of these interface handle sequences?

a) Set

**b) List**

c) Comparator

d) Collection

20) Which of these interface declares core method that all collections will have?

a) Set

b) Comparator

c) EventListner

**d) Collection**

21) Elements of which of the collection can be traversed using Enumeration?

a) ArrayList

**b) Vector**

c) HashSet

d) TreeMap

22) Which of the following is legacy class in java?

a) Arraylist

b) Vector

c) Hashtable

**d) Only B & C**

23) Which among the following Sets maintains insertion order?

a) HashSet

b) TreeSet

**c) LinkedHashSet**

d) Both B & C

24) Which of these methods can randomize all elements in a list?

a) rand()

**b) shuffle()**

c) randomize()

d) ambiguous()

25) What will be the output of the following Java program?

import java)util.\*;

class Array

{

public static void main(String args[])

{

int array[] = new int [5];

for (int i = 5; i > 0; i--)

array[5-i] = i;

Arrays.fill(array, 1, 4, 8);

for (int i = 0; i < 5 ; i++)

System.out.print(array[i]);

}

}

a) 12885

b) 12845

**c) 58881**

d) 54881

26) What will be the output of the following Java program?

import java)util.\*;

class Collection\_iterators

{

public static void main(String args[])

{

ListIterator a = list.listIterator();

if(a)previousIndex()! = -1)

while(a)hasNext())

System.out.print(a)next() + " ");

else

System.out.print("EMPTY");

}

}

a) 0

b) 1

c) -1

**d) EMPTY**

27) What will be the output of the following Java program?

import java)util.\*;

class Collection\_iterators

{

public static void main(String args[])

{

LinkedList list = new LinkedList();

list.add(new Integer(2));

list.add(new Integer(8));

list.add(new Integer(5));

list.add(new Integer(1));

Iterator i = list.iterator();

Collections.reverse(list);

while(i.hasNext())

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

}

}

a) 2 8 5 1

**b) 1 5 8 2**

c) 2

d) 2 1 8 5

28) Which of these methods can convert an object into a List?

a) SetList()

b) ConvertList()

**c) singletonList()**

d) CopyList()

29) Which of these is static variable defined in Collections?

a) EMPTY\_SET

b) EMPTY\_LIST

c) EMPTY\_MAP

**d) All of the mentioned**

30) Which of these method of Array class is used sort an array or its subset?

a) binarysort()

b) bubblesort()

**c) sort()**

d) insert()

31) What is the output of the following program?

import java.util.\*;

public class priorityQueue {

public static void main(String[] args)

{

PriorityQueue<Integer> queue

= new PriorityQueue<>();

queue.add(11);

queue.add(10);

queue.add(22);

queue.add(5);

queue.add(12);

queue.add(2);

while (queue.isEmpty() == false)

System.out.printf("%d ", queue.remove());

System.out.println("\n");

}

}

a) 11 10 22 5 12 2

b) 2 12 5 22 10 11

**c) 2 5 10 11 12 22**

d) 22 12 11 10 5 2

32) What is the output of the following program?

import java.util.\*;

public class Treeset {

public static void main(String[] args)

{

TreeSet<String> treeSet = new TreeSet<>();

treeSet.add("a");

treeSet.add("b");

treeSet.add("a");

treeSet.add("aba");

for (String temp : treeSet)

System.out.printf(temp + " ");

System.out.println("\n");

}

}

a) a b a aba

b) a b aba

**c) a aba b**

d) b aba a

33) The List is a collection that contains only unique elements

a) True

**b) False**

34) A Map can contain duplicate keys

a) True

**b) False**

35) Select the correct output of the execution of the below program:

public static void main(String[] args) {

SortedSet ss=new TreeSet();

ss.add("a");

ss.add("b");

ss.add("c");

ss.add("d");

ss.add("e");

ss.add("f");

ss.add("g");

SortedSet ss2=ss.headSet("e");

Iterator ssitr2=ss2.iterator();

while(ssitr2.hasNext())

{

System.out.println(ssitr2.next().toString());

}

}

a) a,b,c,d,e

**b) a,b,c,d**

c) a,b,c,d,e,f,g

d) Run time exception

36) Select the correct output of the execution of the below program:

public static void main(String[] args) {

SortedSet ss=new TreeSet();

ss.add("a");

ss.add("b");

ss.add("c");

ss.add("d");

ss.add("e");

ss.add("f");

ss.add("g");

SortedSet ss2=ss.tailSet("e");

Iterator ssitr2=ss2.iterator();

while(ssitr2.hasNext())

{

System.out.println(ssitr2.next().toString());

}

}

**a) e,f,g**

b) f,g

c) Run-time exception

37) Which of these collection class has the ability to grow dynamically?

a) Array

b) Arrays

**c) ArrayList**

d) (None of these)

38) The accuracy and efficiency of a HashMap can be guaranteed with:

a) override equals method

b) override hashCode method

c) (None of these)

**d) (All of these)**

39) A HashMap allows the existence of:

a) null values

b) one null key

c) (None of these)

**d) (All of these)**

40) What implementation of Iterator can traverse a collection in both directions?

a) Iterator

**b) ListIterator**

c) SetIterator

d) MapIterator

41) The Comparable interface contains which called?

a) toCompare

b) compare

**c) compareTo**

d) compareWith

42) Which is faster and uses less memory?

a) ListEnumeration

b) Iterator

**c) Enumeration**

d) ListIterator

43) What Iterator can throw a ConcurrentModificationException?

**a) Fail-fast Iterators**

b) Fail-safe Iterators

c) (All of these)

d) (None of these)

44) What is the default number of Partitions/segments in Concurrent Hash Map?

a) 12

b) 32

c) 4

**d) 16**

45) Which is best suited to a multi-threaded environment?

a) WeakHashMap

b) Hashtable

c) HashMap

**d) ConcurrentHashMap**

46) The default capacity of a Vector is:

**a) 10**

b) 12

c) 8

d) 16

47) Which does NOT implement the Collection interface?

a) List

**b) Map**

c) Set

d) (None of these)

48) The default capacity of a ArrayList is:

a) 12

b) 16

c) 1

**d) 10**

49) Which provides better performance for the insertion and removal from the middle of the list?

a) Vector

b) ArrayList

**c) LinkedList**

d) (All of these)

50) An unordered array has a search time complexity of:

a) O(log n)

**b) O(n)**

c) O(n + 1)

d) O(1)

51) The add and remove methods of TreeSet have a time complexity of:

a) O(n)

b) O(n + 1)

c) O(1)

**d) O(log n)**

52) After resizing, size of ArrayList is increased by :

a) 200%

**b) 50%**

c) 100%

d) (None of these)

53) After resizing, size of Vector is increased by:

a) 200%

**b) 100%**

c) 50%

d) (None of these)

54) Deque and Queue are derived from:

a) AbstractList

**b) Collection**

c) AbstractCollection

d) List

55) What guarantees type-safety in a collection?

**a.Generics**

b.Abstract classes

c.Interfaces

d.Collection

56) HashSet internally uses?

a.Set

**b.HashMap**

c.List

d.Collection

57) The most used interfaces from the Collection framework are?

a.List

b.Map

c.Set

**d.(All of these)**

58) The root interface of Java Collection framework hierarchy is -

**a.Collection**

b.Root

c.Collections

d.List/Set

59) Which of these is synchronized?

a.ArrayList

b.LinkedList

**c.Vector**

d.(None of these)

60) ArrayList implements which of the following?

a.List

b.RandomAccess

c.Cloneable

**d.(All of these)**

61) Which of these allows the storage of many null values?

a.Set

**b.List**

c.(None of these)

d.(All of these)

62) nextIndex() and previousIndex() are methods of which interface?

a.IndexIterator

b.Iterator

**c.ListIterator**

d.NextPreviousIterator

63) Vector extends which of these?

a.ArrayList

b.LinkedList

**c.AbstractList**

d.None

64) LinkedList implements?

a.Deque

b.List

c.None

**d.All**

65) In Iterator, nextElement() method of Enumeration has been changed to:

**a.next()**

b.getNext()

c.returnNext()

d.name remains same

66) Enumeration returned by Vector is?

a.fail-fast

**b.fail-safe**

c.none

67) From Java 5 onwards, which one of these is recommended to replace Hashtable?

**a.ConcurrentHashMap**

b.HashMap

c.ConcurrentHashtable

d.None

68) Which does not allow to store a null value?

**a.TreeSet**

b.LinkedHashSet

c.HashSet

d.None

69) Iterator returned by Vector is?

**a.fail-fast**

b.fail-safe

c.none

70) What describes how well an algorithm performs in best, average or worse case scenarios?

a.Big-B

**b.Big-O \*\*\*\*\*\***

c.Big-Data

d.Big-N

71) An ordered array has a search time complexity of?

a.O(n)

b.O(1)

**c.O(log n)**

d.O(n-1)

72) Which Map class must be preferred in multi-threading environment to maintain natural order of keys?

a.ConcurrentHashMap

**b.ConcurrentSkipListMap**

c.ConcurrentMap

d.all

73) In Iterator, hasMoreElements() method of Enumeration has been changed to:

a.hasNextElement()

b.isNext()

**c.hasNext()**

d.name remains same

74) TreeSet internally uses which one to store elements?

a.HashMap

b.LinkedHashMap

**c.TreeMap**

d.None

75) HashSet internally uses?

**a.HashMap**

b.LinkedHashMap

c.TreeMap

d.None

76) An attempt to add null key to a TreeSet will result in:

a.Will compile

b.Compile time Exception

c.Error

**d.Runtime - NullPointerException**

77) What is initial capacity of LinkedList?

a.8

**b.10**

c.16

d.10

78) Enumeration returned by ArrayList is

**a.Fail-fast**

b.Fail-safe

c.none

79) LinkedHashMap allows

a.one null key

b.many null values

c.none

**d.all**

80) Hashtable allows

a.one null key

b.many null values

**c.none**

d.all

81) How can you sort given HashMap on basis of values

**a.Implement Comparator interface and override its compare method**

b.It's not possible

c.Implement Comparator interface and override its compareTo method

d.Implement Comparator and Comparable interface

82) What does Collections.sort internally uses when number of elements are less than 7?

**a.Insertion sort**

b.Merge sort

c.Quick sort

d.None

83) What does Collections.sort internally uses when number of elements are greater than 7?

a.Insertion sort

**b.Merge sort**

c.Quick sort

d.None

84) An attempt to add null key to a TreeMap will result in:

a.Compile time Exception

b.Error

**c.Runtime - NullPointerException**

d.None

85) In ListIterator, after a call to next() or previous(), if a call is made to set(E element) followed by add() or remove() what happens?

a.compilation error

**b.UnsupportedOperationException**

c.ConcurrentModificationException

d.none

86) Which of these is synchronized and doesn't allow null elements?

a.Vector

b.CopyOnWriteArraySet

c.CopyOnWriteArrayList

**d.ConcurrentSkipListSet**

87) Which of these is synchronized and isn't sorted by natural order?

a.EnumSet

b.LinkedList

c.ConcurrentSkipListSet

**d.Vector**

88) Which interface must be implemented for sorting on basis many criterias

**a.Comparator**

b.Comparable

c.Serializable

d.None

89) Can 2 threads on same ConcurrentHashMap object access it concurrently

a.we need to add additional functionality to achieve the same.

b.Its not possible

**c.different threads can access different segments concurrently.**

90) Which of these provides a get(in index) method?

a.Map

b.Set

**c.List**

d.All

91) LinkedHashSet implements:

a.Set

b.Cloneable

c.Serializable

**d.All**

92) What is significance of using instanceOf operator and getClass() in equals method

a.instanceOf will return true for comparing current class with its subclass as well

b.getClass() will return true only if exactly same class is compared

c.getClass() will return false when compared with subclass

**d.All**

93)Which of these methods can convert an object into a List?

a. SetList()

b. CopyList()

**c. singletonList()**

d. ConvertList()

94) Which of these is true about unmodifiableCollection() method?

a. unmodifiableCollection() is defined in Collection class.

b. unmodifiableCollection() returns a collection that cannot be modified.

**c. unmodifiableCollection() method is available only for List and Set.**

d. None of the mentioned.

95) Which of the following is an outdated class but still in use?

a. Arraylist

b. Vector

c. Hashtable

**d. Both B and C are true.**

96) What will be the result of the following statement?

TreeSet set = Collections.singleton("one");

**a. The statement will not compile**

b. A singleton set will be created.

c. ClassCastException will be thrown

d. None of the above

97) Which method of the Iterator throws ConcurrentModificationException?

**a. Next()**

b. hasNext()

c. remove()

d. None of the above

98) Which of the following statement is true about TreeSet class ?

a. Access and retrieval times are quite slow.

b. Uses a LinkedList structure to store elements

**c. TreeSet stores elements sorted ascending order \*\*\*\*\*\*\***

d. TreeSet extends AbstractList class and implements the List interface.

99) Which of the following method is used to return a Set that contains the entries in a map ?

a. keyset()

b. getSet()

**c. entrySet()**

d. getAll()

100) Which of the following statement is not correct about HashMap class ?

a. HashMap class is not synchronized.

**b. HashMap maintain order of its element.**

c. HashMap uses a hashtable to store the map.

d. HashMap class extends AbstractMap and implements Map interface.