# Collections

QUIZ

Prapared by RVK.

# QUESTION 1

In The following code:

```
ArrayList al=new ArrayList();
```

Which of the following statements are true.

A Generates compiletime error in 1.5 java version

B Warns a type unsafe.

C It does not generate any warning or error in 1.4 version

D all the above

# Question 2

In the code:

```
ArrayList<int> al=new ArrayList<int>();
        al.add(12);
        System.out.println(12);
```

a) prints 12
b) compile time error
c) when <int> is removed compiles fine
d) b and c are right

# Question 3

```
ArrayList al=new ArrayList();
        al.add(12);
        al.add(4.5);
        al.add("hello");

        String o1=al.get(3);   //line1

        System.out.println(o1); //line2
```

A Complains that dissimilar elements cannot be added

B Compilation error in line1

C Prints hello in line2

D Gives IndexOutOfBoundsException

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# Question 4

```
ArrayList al=new ArrayList();
         al.add(12);
         al.add(4.5);
         al.add("hello");

         Object o1=al.get(3);   //line1

         System.out.println(o1); //line2
```

A  Complains that dissimilar elements cannot be added

B  Compilation error in line1

C  Prints hello in line2

D  Gives IndexOutOfBoundsException

# Question 5

```
ArrayList<Number> al=new
   ArrayList<Number>();
        al.add(12);
        al.add(4.5);
        al.add("hello");
```

what is the effect of the above code.

# Question 6

Which of the following interfaces stores elements in insertion order

A List

B Set

C Map

D SortedSet

# Question 7

Which of the following classes stores elements with an index.

A ArrayList

B LinkedList

C Vector

D All the above

# Question 8

Which of the following interfaces do not have a get method

A Map

B List

C Set

D Collection

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# Question 9

```
List<Integer> l1=new ArrayList<Integer>();
l1.add(1); l1.add(2);l1.add(3);
l1.remove(1);
System.out.println(l1);

//what is the output
```

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# Question 10

```
Set<Integer> l1=new HashSet<Integer>();
l1.add(1); l1.add(2);l1.add(3);
l1.remove(1);
System.out.println(l1);

//What is the output
```

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# Question 10

```
Set<Integer> l1=new HashSet<Integer>();
l1.add(1); l1.add(2);l1.add(3);
l1.remove(1);
System.out.println(l1);

//What is the output
```

# Question 10

```
Set<Integer> l1=new HashSet<Integer>();
l1.add(1); l1.add(2);l1.add(3);
l1.remove(1);
System.out.println(l1);

//What is the output
```

# Question 11

```
Set<Integer> l1=new HashSet<Integer>();
l1.add(1); l1.add(2);l1.add(3);
l1.remove(5);
System.out.println(l1);

//What is the output
```

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# Question 11

```
Set<Integer> l1=new HashSet<Integer>();
l1.add(1); l1.add(2);l1.add(3);
l1.remove(5);
System.out.println(l1);

//What is the output
```

# Question 11

```
Set<Integer> l1=new HashSet<Integer>();
l1.add(1); l1.add(2);l1.add(3);
l1.remove(5);
System.out.println(l1);

//What is the output
```

# Question 12

```
List<Integer> l1=new ArrayList<Integer>();
l1.add(1); l1.add(2);l1.add(3);

l1.remove(3);

System.out.println(l1);
```

# Question 13

Which of the following statements generate compilation errors.

A List<Number> al=new ArrayList<Integer>();

B List<Number> al=new ArrayList<Integer>();

C ArrayList<Number> a3=new ArrayList<Number>();

D ArrayList<Number> a4=new ArrayList<Integer>();

E ArrayList<? extends Number> a4=new ArrayList<Integer>();

# Question 14

Which of the following are not valid?

1. ArrayList<? **extends Integer> a4=new ArrayList<Integer>();**

   a4.add(12);

2 ArrayList<? **super Integer> a4=new ArrayList<Integer>();**

  a4.add(12);

3 ArrayList<Integer> a4=**new ArrayList<Integer>();**

  a4.add(4);

  a4.add(5);

  ArrayList<? **extends Integer> a5=a4;**

  a5.add(56);

  a5.remove(1);

# Question 15

Comparator interface declares a method

___________________

A compare(T o1,T o2)

B compare(T obj)

C both

D none

# Question 16

Comparable interface declares a method

____________________

A compareTo(T o1,T o2)

B compareTo(T obj)

C both

D none

# Question 17

Which of the following implementation classes store key,value pairs.

A ArrayList

B Vector

C Map

D HashMap

# Question 18

Which of the following have synchronized methods.

1 HashSet 2 Vector 3 HashTable

A 1 & 2

B 1,2,3

C 2 & 3

D only 1

# Question 19

Which of the following statements regarding Hashtable are true?

A accepts duplicate keys

B accepts duplicate Values

C accepts null keys

D accepts null values.

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# Question 20

What is the effect of the following code?

```
Hashtable<String,String> ht=new Hashtable<String,String>();
ht.put("abc",null);
ht.put("abc","xyz");
System.out.println(ht);
```

# Question 21

What is the output of the following code?

```
Hashtable<String,String> ht=new
   Hashtable<String,String>();
ht.put("abc","null");
ht.put("abc","xyz");
System.out.println(ht);
```

*A abc null*

*B abc xyz*

*C exception*

*D abc null*
*abc xyz*

# Question 22

What is the effect of the code?

```
Hashtable<String,String> ht=new Hashtable<String,String>();
ht.put(null,"abc");
ht.put("abc","xyz");
System.out.println(ht);
```

# Question 23

Which of the following ways cannot be used to print the elements of hashset.

A Single System.out.println(hashsetobject);

B for(int i=0;i<hs.size();i++) { }

C foreach loop

D using Iterator

# Question 24

```
HashMap<String,String> ht=new
   HashMap<String,String>();
ht.put(null,"abc");
ht.put("abc","xyz");
System.out.println(ht);
```

*A* *null abc*

*B* *compilation error*

*C* *exception*

*D* *null abc*
*abc xyz*

# Question 25

Stack class extends from ____________ class

A AbstractList

B Vector

C ArrayList

D LinkedList

# Question 26

```
TreeSet map = new TreeSet();
map.add("one");
map.add("two");
map.add("three");
map.add("four");
map.add("one");
Iterator it = map.iterator();
while (it.hasNext() ) {
System.out.print( it.next() + " " );
}
```

what is the result?

A. one two three four

B. four three two one

C. four one three two

D. one two three four one

E. one four three two one

F. The print order is not guaranteed

# Question 27

Which collection class allows you to access its elements by associating a key with an element's

value, and provides synchronization?

A. java.util.SortedMap

B. java.util.TreeMap

C. java.util.TreeSet

D. java.util.HashMap

E. java.util.Hashtable

# Question 28

Which of these is correct to sort an array of Strings (mynames[])

A Arrays.sort(mynames);

B Collections(mynames);

C Both can be used

D A separate logic has to be written

# Question 29

Which of the following methods of Queue interface retrieves but does not remove the head element.

A peek() -- returns null when q is empty

B element() -- throws NoSuchElementException when Q is empty

C both

D none

# Question 30

Which method retrieves and removes the head of this queue, or null if this queue is empty.

A remove()

B poll()

C offer()

D none

# Question 31

When userdefined objects have to be stored in a TreeSet or a TreeMap which of the following interfaces have to be implemented.

A Comparable

B Comparator

C Either A or B

D Both A and B

# Question 32

When userdefined objects have to be stored in a TreeSet or a TreeMap what exception is thrown if Comparable or Comparator interfaces are not implemented