

# M3

1- Consider the following scenario

Mithun is a java programmer. He creates an array of size 50 which exception is thrown when array elements are accessed in emp array beyond the array size.

Ans - **Array index out of bounds Exception**

2- Which of the following statement about hashCode method are incorrect.

- The value written by hashCode is used in some collection classes to help locate objects.
- The hashCode method is required to written positive integer value.
- The hashCode method in a string class is one inherited from object.
- The two new empty string objects will produce identical hashCode.

3- Which collection class allows you to grow or shrink its size and provides index access to its elements but whose methods are not synchronized.

Ans - **ArrayList → junit.util.ArrayList**

4 -

How do you call the conversion of primitive types to the object of their corresponding wrapper class like long to Long, double to Double, integer to Integer?

Ans.

Auto box

5 -

Which method is valid for any output stream but can be invoked ~~manually~~ <sup>manually</sup> has no effect unless the stream is buffered?

Ans

Flush

6 -

Consider the following scenario

Akbar wants to allow communication between objects via socket in a Remote method invocation (RMI)

Ans

Use objects serialization by creating a class which implements the Serializable interface

7 -

Ram wants to write a java program which optimizes input and output data in a file handling with reduced no. of calls to the native API.

Ans

Buffered streams

8 - You need to store elements in a collection that guarantees that no duplicates are allowed and all elements in the collection are maintained in a specific order.

Ans TreeSet

9 - Which of the given class from the java collection framework implement the collection interface.

Ans ArrayList

10 - Which of the following object will not allow insertion of null element?

Ans Hashtable

11 - Which of the following java interface can be used TreeSet to sort user defined objects.

Ans Comparable

12 - Correct statement about JAVA

- TreeSet is unsynchronized set
- TreeSet is synchronized

Element in a TreeSet must be of type that implement Comparable.



13 - Which of the collection API is considered to be safe synchronised with thread applications and uses hashing algorithm to store the objects in a key and value.

Ans Hashtable.

14 - Which of the following collection of API is considered to be safe and synchronised with thread applications and uses hashing algorithm to store the object.

Ans Hashtable.

15 - List in java collection statements select the correct option.

- list is an unordered collection
- list is an ordered collection
- list is a sorted collection.
- list doesn't allow duplicates.

✓ 16 - Which interface of java.util package allows following features. ① entries sorted using comparator.

Ans SortedMap. ② Duplicate replace original entry  
③ Entry is sorted as Key value

17 - Which collection class allows you to access its element by associating the key with an elements value and possible synchronization.

Ans

Hashtable . (java.util)

- 18 - Which collection maintains index based access for its elements also which makes it faster for searching an element in the list whose methods are not synchronized.

Ans

ArrayList

- 19 - What will be the following java code output .

```
TreeSet tree = (new TreeSet());
tree.add(1, 2, 3);
tree.add(-23);
tree.add("one");
tree.add("two");
tree.add("three");
tree.add("four");
```

System.out.println(tree);

Ans

ClassCastException as you cannot add elements of different data types  
[TreeSet element stored in sorted order ]  
ClassCastException .

20 -

Code:

```
String arr[5] = { "aaa", "abc", "a", "px", "cd",
                  "-23" };
array.sort(arr);
```

```
for( i=0 ; i < array.length ; i++ )  
    System.out.println( arr[i] + " " );
```

Ans

O/P

-23, 299, a, abc, cde, pqrs.

21-

Code

Class Test {

main {

Set HashSet = new HashSet();

HashSet.add(1);

HashSet.add(1);

System.out.println(HashSet);

[a no duplicates allowed]

1, 1

1

Null pointer

Compiler

Q2)

Code:

```
Set string hs = new HashSet();  
hs.add("banana");
```

```
hs.add("apple");
```

```
hs.add("orange");
```

```
hs.add("berry");
```

```
hs.add("lemon");
```

```
hs.add('45');
```

```
System.out.println(hs.size);
```

AnsO/P~~Q7/5~~

23)

Code:main {

method {

Set set = new HashSet();

set.add("B");

set.add("B");

set.add("D");

set.add("A");

System.out.println(set);

AnsO/P~~Q7/6~~ No compilation / run time error

24)

Code: method {

Map map = new HashMap();

map.put(1, "Mohan");

map.put(2, "Mohan");

map.put(1, "Mohan");

System.out.println(map.size());

AnsQ/F 2

25) Difference between HashTable and HashMap.

Keys can't be changed in HashTable (synchronized whereas HashMap is not synchronized)

26) Which is true about HashMap and HashTable.

HashTable is synchronized.

27) Fill in the blanks:

HashTable doesn't allow null in keys as well as value.

28) Select suitable:

Album consists of songs that are arranged in alphabetical order as per the title without any duplication.

TreeSet

29) Which of the following is not true about HashMap?

- uses HashTable to store the Map
- Class is not synchronized
- key value pair type of storage
- maintains order of its element.

30 - Code :

```
list intobj = new ArrayList();
intobj.add(new int(3));
intobj.add(new int(2));
intobj.add(new int(5));
intobj.removeAll(intobj);
System.out.println(intobj);
```

- 3 2 5

- error as method invalid

true

false

31) Pickup the true statement from java

- Collection index starts from 1
- List doesn't allow duplicate entries
- Set permits duplicate entries
- Hashmap allows 1 null key and key value.

32) Which of the following is true in JAVA.

- Collection index starts from 1
- List allows duplicates
- Set permits duplicate entries
- HashMap does not allow null

33) Which of the following is true in JAVA

- Collection index starts from 0
- List allows duplicates
- Set does not allow duplicates
- All of the above

34 - Match :-

HashSet

a) unsorted, unordered entries  
can be available as key value pair

Linked HashSet

b) ordered, unsorted, duplicates allowed

Linked List

c) ordered, unsorted, duplicates allowed

HashTable

d) unsorted, unsorted set

36) Ram has <sup>been</sup> given a task to sort the employees based on salary. Consider only emp salary will be stored in collection. Which set should be used here?

TreeSet.

37) In Java, which of the options below allows the caller to remove elements from underlined collection during iteration with well defined symmetric using

iterator.

38) In the product management system, Sanjana wants to perform insertion and deletion of product object frequently. Which collection class will be best suited and data is not sorted.

LinkedList

39) In a java application, Sheela had stored class room numbers in TreeSet who wants to print all room numbers. Suggest correct option to do this.

can use iterator or enhanced for loop.

39) Which statement will insert the fruit name

class demo {

main {

ArrayLists fruits = new ArrayLists();

fruits.add ("Apple");

fruits.add ("Mango");

fruits.add ("Grapes");

System.out.println(fruits);

collections.sort(fruits) is compilation error

and collection sort() is must  but it is undefined.

40) What will be the output of code?

map.put ("MH", null);

map.put (null, "Karnataka");

map.put (null, null);

map.put ("MP", "Madhya Pradesh");

System.out.println (map.size());

3

41)

41) What is the output of the code?

```
Aveaylist a = new Aveaylist();  
a.add(c);
```

```
a.add(a);
```

```
a.add(f);
```

```
a.add(o);
```

```
System.out(contents(a)+a)
```

```
System.out(contents of a : " + o ));
```

abc

ccaf a result of printing contents

caa

eeeor

42) Sreekrishna is involved in development of employment management system. He has to maintain employee details such as employee name and salary in the form of key value pairs. He is not concerned about maintaining data in sorted/ordered manner. Which collection class will you suggest him?

HashMap

43) A java developer wants to hold a collection of with no duplicate entry. He does not care about the order when iterating through it. Identify which collection class will be suitable for the requirement.

HashSet

44) Which of the following is true w.r.t @Ignore annotation in JAVA?

can be applied to class and methods

45) Which is the correct code to run the test suite?

run with (suit-class)

& suit-suit classes

public class Test person suit

46) Which is the correct code for failing a test if a test takes longer than 1sec,

@Test  
@Timeout(1000)

47) What is the difference between `@Before` & `@BeforeClass` if we have 10 test methods.

✓ Before code will be executed 10 times, but before-class will be executed only once.

48) Code: What is true about this JUNIT code?

Junit class.

```
public void testmsg {
```

① Test

(Timeout(1000))

```
public void testmsg {
```

✓ It will fail if test takes longer than 1000 milliseconds.

49) Code: 3 methods written

① Test

```
public void get-roll no {
```

② Ignore

```
public void get-lastrname {
```

Symbol ("This method is modified");

③ Test(Expected=class Get exception)

```
public void get-first {
```

?

How many test cases will be executed?

2.

50)

How do you test exception thrown by following method in JUNIT.

public void division with exception {

int i = 1/0 ;

}

annotate the test method as follows:

@Test (expected = arithmeticException.class)

51)

Fill in the blanks :

1 - public class TestCases {

2 - -----

3 - @Test

4 - methodName {

}

5 - }

Which annotation insertion in line 2 in above code will exclude the execution of test method?

Ignore annotation.

52) Fill in the blanks:

Parameterised list allows developer to use same list over and over again using different values.

53) Smitha a java developer wants to speedup I/O operations so that she don't have to access the list everytime and I/O operation is performed, which is time and resource consuming process. Suggest an appropriate stream that will help her in achieving this.

Buffered stream

54) Select a true statement about serialisation.

- Serialisation is the mechanism of saving the state of an object into a file.
- To persist an object to a file the object class needs to implement Serializable interface.
- Deserialisation is the process of deconstructing the object from the serialised state.
- All of the above.

55) Select the appropriate method used to clear all the data present in output buffer.

flush

56) Which of this is the correct method to test whether the specified element is file or not?

isFile

57) It is the process of transforming an object into a sequence of bytes which can be persist. The statement belongs to which of the following.

serialisation

58) Can data flow in a given I/O stream in both directions.

No, stream has <sup>only</sup> 1 direction I/P or O/P

59) A friend wants to send the character I/P data. Suggest an appropriate stream for him.

Reader

60) While using a try with resource feature in exception handling when are <sup>the</sup> resources closed when a try block closed.

Resources in try block are closed whether the try block is closed normally or abnormally

61) Which statement is true about exception handling in java?

- There can be more than 1 try catch block.
- Nested try block is valid in java.
- Try block must be followed by either catch block or finally block.

all of the above.

62) Which of the statement is incorrect w.r.t. try block?

Try need not be followed by anything.

63) Which of the foll are true regardless of finally block used in exception handling?

- ☐ It is mandatory block in exception handling.
- ☐ There can be more than 1 finally block.
- ☐ If try block has return statement finally block is ignored.
- The statement in finally block will be executed irrespective of exception is raised or not.

64) Scenario:

In a JAVA code, 1 try block is there with 2 catch blocks for SQL exception and I/O exception and finally block follows the catch block. But at the time of execution 1 statement in try block throws I/O exception. According to given scenario, which one of the following is correct.

- When exception is thrown I/O exception block will be executed followed by final block.

65) Scenario:

Sugya has been assigned with a task of creating

Custom defined checked exception in a JAVA application.  
She has created new class name as employeeexception.  
Which predefined class need to be inherited in a  
employeeexception class to make it checked exception?

Exception