Dashboard (http://kmitonline.com/student/dashboard.php) / Quiz

Started on	Wednesday, 14 May 2025, 12:40 PM
State	Finished
Completed on	Wednesday, 14 May 2025, 1:02 PM
Time taken	21 mins 21 secs
Marks	18.00/20.00
Grade	**90.00** out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

The number of values that can be returned from a given stored function is . . . . .

Select one:

- ○ **a. 2**
- ◉ **b. 1**

- ○ **c. 0**
- ○ **d. 3**

The correct answer is: 1

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Question **2**

Correct

Mark 1.00 out of 1.00

What is the result of the following code? (Choose all that apply)

13: String a = "";

14: a += 2;

15: a += 'c';

16: a += false;

17: if (a == "2cfalse") System.out.println("==");

18: if (a.equals("2cfalse")) System.out.println("equals");

Select one:

○ **a. An exception is thrown.**

◉ **b. equals**

○ **c. Compile error on another line.**

○ **d. Compile error on line 15.**

○ **e. Compile error on line 16.**

○ **f. Compile error on line 14.**

○ **g. ==**

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The correct answer is: equals

Question 3

Correct

Mark 1.00 out of 1.00

Which of the following is a group of one or more attributes that uniquely identifies a row ?

Select one:

- ⦿ **a. Key** ✓

- ○ **b. Determinant**
- ○ **c. Tuple**
- ○ **d. Relation**

The correct answer is: Key

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Question 4

Correct

Mark 1.00 out of 1.00

What is the result of the following statements?

3: ArrayList<Integer> values = new ArrayList<>();

4: values.add(4);

5: values.add(5);

6: values.set(1, 6);

7: values.remove(0);

8: for (Integer v : values) System.out.print(v);

Select one:

○ **a. The code does not compile.**

○ **b. 4**

○ **c. 45**

● **d. 6**

○ **e. 46**

○ **f. An exception is thrown.**

○ **g. 5**

The correct answer is: 6

Question 5

Correct

Mark 1.00 out of 1.00

In a system using demand paging, what causes a page fault?

Select one:

○ **a. When the TLB is updated**

○ **b. When a page is present in memory but is not referenced**

◉ **c. When a program accesses a page not currently in physical memory**

○ **d. When the page replacement algorithm is invoked**

The correct answer is: When a program accesses a page not currently in physical memory

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Question
6

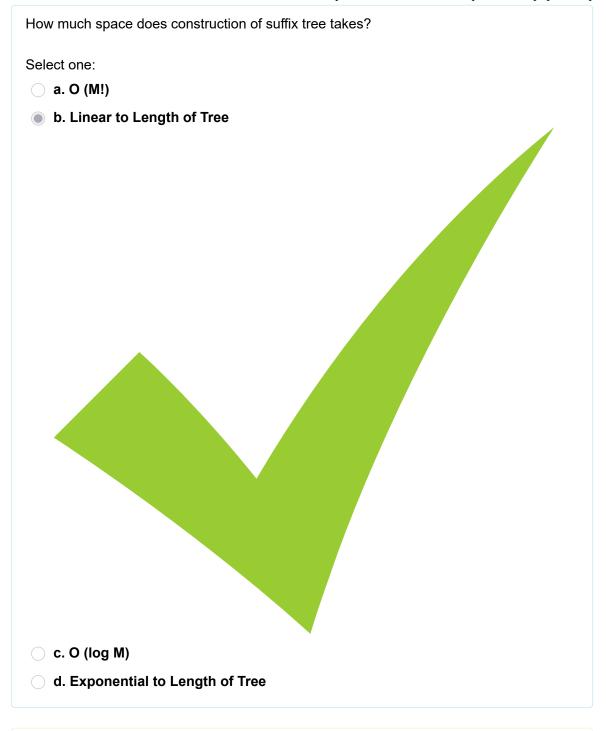Incorrect

Mark 0.00 out of 1.00

What is the result of the following?

```
1:  public class Order {
2:    static String result = "";
3:    { result += "c"; }
4:    static
5:    { result += "u"; }
6:    { result += "r"; }
7: }
1: public class OrderDriver {
2:   public static void main(String[] args) {
3:     System.out.print(Order.result + " ");
4:     System.out.print(Order.result + " ");
5:     new Order();
6:     new Order();
7:     System.out.print(Order.result + " ");
8:   }
9: }
```

Select one:

- a. u u curcur
- b. ucrcr
- c. u u ucrcr
- d. The code does not compile
- e. curur
- ● f. u ucrcr

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◯ **g. ur ur urc**

The correct answer is: u u ucrcr

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Question 7

Correct

Mark 1.00 out of 1.00

How much space does construction of suffix tree takes?

Select one:

○ **a. O (M!)**

◉ **b. Linear to Length of Tree**

○ **c. O (log M)**

○ **d. Exponential to Length of Tree**

The correct answer is: Linear to Length of Tree

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Question 8

Correct

Mark 1.00 out of 1.00

What is the main advantage of using a connection-oriented protocol like TCP?

Select one:

- ○ **a. Faster transmission speed**
- ◉ **b. Guaranteed delivery and in-order packet arrival**
- ○ **c. Stateless communication**
- ○ **d. Lower overhead**

The correct answer is: Guaranteed delivery and in-order packet arrival

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Question 9

Correct

Mark 1.00 out of 1.00

What is primary property of AVL tree ?

Select one:
- ○ **a. It allows duplicate keys.**
- ○ **b. It allows duplicate keys.**
- ○ **c. It maintains a fixed height.**
- ● **d. It is a self-balancing binary search tree.**

The correct answer is: It is a self-balancing binary search tree.

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Question 10

Correct

Mark 1.00 out of 1.00

What is the time complexity of inserting an element into a binary heap?

Select one or more:

- [ ] **a. O(n)**
- [ ] **b. O(n log n)**
- [x] **c. O(log n)**
- [ ] **d. O(1)**

The correct answer is: O(log n)

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Question **11**

Correct

Mark 1.00 out of 1.00

Which of the following is not a characteristic of a good Software Requirements Specification (SRS)?

Select one:

- ◉ **a. Incomplete**

- ○ **b. Verifiable**

- ○ **c. Unambiguous**

- ○ **d. Consistent**

The correct answer is: Incomplete

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Question
12

Correct

Mark 1.00 out of 1.00

What will be the output of the following MySQL statement?

SELECT account_id, product_id, cust_id

FROM account

WHERE product_id IN ('sav', 'chd', 'mm');

Select one:

○ **a. All of the mentioned**

○ **b. Only those values are selected whose product_id is either 'sav', 'chd'**

○ **c. Only those values are selected whose product_id is either 'sav'**

◉ **d. Only those values are selected whose product_id is either 'sav', 'chd', 'mm'**

The correct answer is: Only those values are selected whose product_id is either 'sav', 'chd', 'mm'

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Question 13

Correct

Mark 1.00 out of 1.00

What is the output of the following code?

```
import rope.*;
import static rope.Rope.*;
public class RopeSwing {
private static Rope rope1 = new Rope();
private static Rope rope2 = new Rope();
{
System.out.println(rope1.length);
}
public static void main(String[] args) {
rope1.length = 2;
rope2.length = 8;
System.out.println(rope1.length);
}
}
package rope;
public class Rope {
public static int length = 0;
}
```

Select one:

- a. 02
- b. An exception is thrown.
- c. 08
- d. The code does not compile.
- e. 2
- f. 8

The correct answer is: 8

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Question
14

Correct

Mark 1.00 out of 1.00

which data structure is commonly used to implement the priority queues?

Select one:

○ **a. AVL Tree**

○ **b. Binary Search Tree**

◉ **c. Heap**

○ **d. Red-Black Tree**

The correct answer is: Heap

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Question 15

Correct

Mark 1.00 out of 1.00

Which of the following scheduling algorithms may lead to starvation?

Select one:

- ○ **a. Multilevel Queue with Round Robin in all queues**
- ○ **b. Round Robin**
- ○ **c. First-Come-First-Serve**
- ● **d. Shortest Job Next**

The correct answer is: Shortest Job Next

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Question **16**

Incorrect

Mark 0.00 out of 1.00

Which of the following lambda expressions can fill in the blank? (Choose all that apply)

List<String> list = new ArrayList<>();
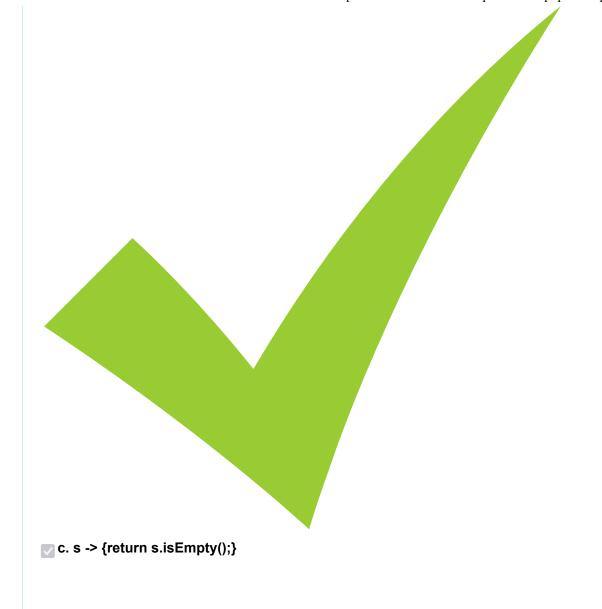
list.removeIf(_____);
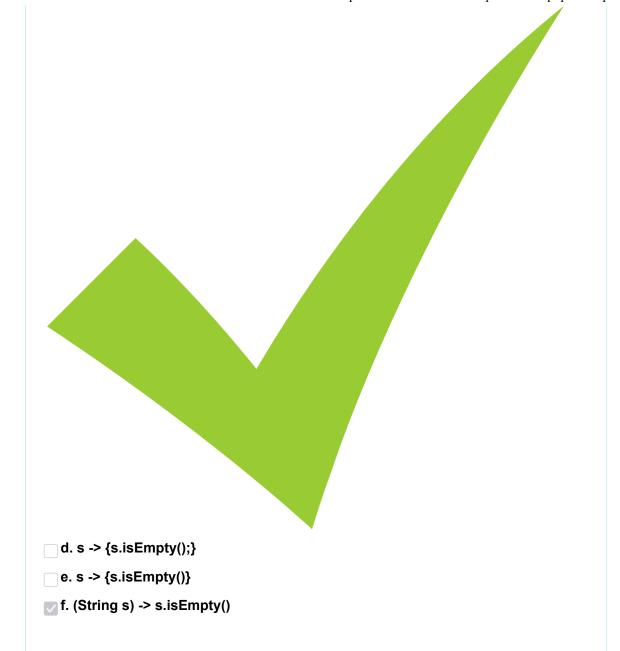
Select one or more:

☑ **a. String s -> s.isEmpty()**

☑ **b. s -> s.isEmpty()**

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☑ **c. s -> {return s.isEmpty();}**

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☐ **d. s -> {s.isEmpty();}**

☐ **e. s -> {s.isEmpty()}**

☑ **f. (String s) -> s.isEmpty()**

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The correct answer is: s -> s.isEmpty(), s -> {return s.isEmpty();}, (String s) -> s.isEmpty()

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Question 17

Correct
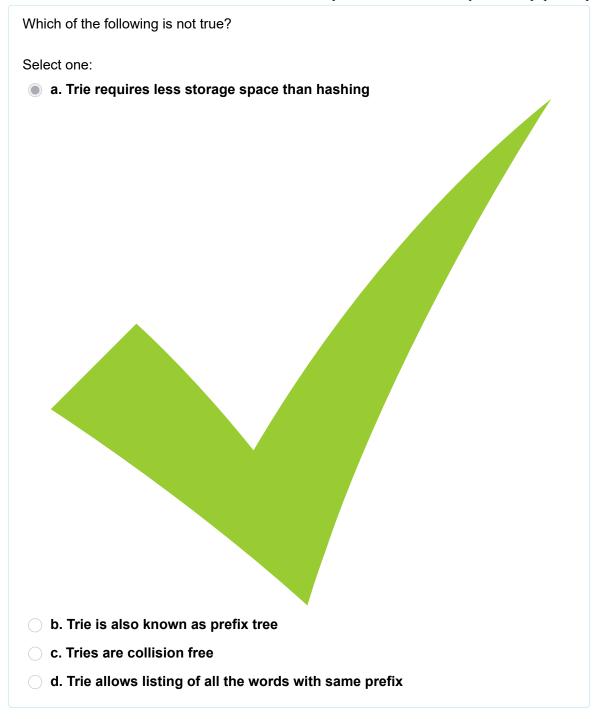
Mark 1.00 out of 1.00

Which of the following testing techniques is based on the internal structure of the program?

Select one:

○ **a. Equivalence partitioning**

○ **b. Black-box testing**

◉ **c. White-box testing**

○ **d. Boundary value analysis**

The correct answer is: White-box testing

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Question 18

Correct

Mark 1.00 out of 1.00

Which of the following is not true?

Select one:

○ **a. Trie requires less storage space than hashing**

○ **b. Trie is also known as prefix tree**

○ **c. Tries are collision free**

○ **d. Trie allows listing of all the words with same prefix**

The correct answer is: Trie requires less storage space than hashing

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Question
19

Correct

Mark 1.00 out of 1.00

Which of the following is NOT a function of the transport layer?

Select one:

○ **a. Flow control**

◉ **b. Routing of packets**

○ **c. Error detection and ion**

○ **d. Segmentation and reassembly**

The correct answer is: Routing of packets

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Question **20**

Correct

Mark 1.00 out of 1.00

Which of the following is true regarding semaphores?

Select one:

○ **a. Binary semaphores can take any integer value**

○ **b. Semaphores help avoid deadlocks**

○ **c. They can only be used for synchronization between threads in the same process**

◉ **d. Semaphores can be used to avoid race conditions**

The correct answer is: Semaphores can be used to avoid race conditions

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