

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

**Started on** Monday, 19 May 2025, 12:34 PM

**State** Finished

**Completed on** Monday, 19 May 2025, 12:58 PM

**Time taken** 23 mins 28 secs

**Marks** 13.00/20.00

**Grade** **65.00** out of 100.00

### Question

## 1

Complete

Mark 1.00 out of 1.00

What is information about data called?

Select one:

- ☐ a. Tera data
- ☐ b. Relations
- ☐ c. Hyper data
- ☒ d. Meta data

### Question

## 2

Complete

Mark 1.00 out of 1.00

How many layers are there in the ISO OSI reference model?

Select one:

- ☐ a. 8
- ☐ b. 5
- ☐ c. 4
- ☐ d. 6
- ☒ e. 7

## Question

3

Complete

Mark 0.00 out of  
1.00

Suppose we have a class named Rabbit. Which of the following statements are true?  
(Choose all that apply)

```
1: public class Rabbit {  
2:     public static void main(String[] args) {  
3:         Rabbit one = new Rabbit();  
4:         Rabbit two = new Rabbit();  
5:         Rabbit three = one;  
6:         one = null;  
7:         Rabbit four = one;  
8:         three = null;  
9:         two = null;  
10:        two = new Rabbit();  
11:        System.gc();  
12:    } }
```

Select one or more:

- ☐ a. The Rabbit object from line 3 is first eligible for garbage collection immediately following line 6.
- ☒ b. The Rabbit object from line 3 is first eligible for garbage collection immediately following line 8.
- ☒ c. The Rabbit object from line 4 is first eligible for garbage collection immediately following line 11.
- ☐ d. The Rabbit object from line 3 is first eligible for garbage collection immediately following line 12.
- ☐ e. The Rabbit object from line 4 is first eligible for garbage collection immediately following line 12.
- ☒ f. The Rabbit object from line 4 is first eligible for garbage collection immediately following line 9.

## Question

4

Complete

Mark 1.00 out of 1.00

Which topology requires a multipoint connection?

Select one:

- ☒ a. **Bus**
- ☐ b. **Mesh**
- ☐ c. **Ring**
- ☐ d. **Star**

## Question

5

Complete

Mark 1.00 out of 1.00

In Operating Systems, which of the following is/are CPU scheduling algorithms?

Select one:

- ☐ a. **Round Robin**
- ☐ b. **Priority**
- ☐ c. **Shortest Job First**
- ☒ d. **All of the mentioned**

## Question

6

Complete

Mark 0.00 out of 1.00

A self-balancing binary search tree can be used to implement

Select one:

- ☒ a. **Priority queue and Heap sort**
- ☐ b. **Priority queue**
- ☐ c. **Heap sort**
- ☐ d. **Hash table**

## Question

7

Complete

Mark 1.00 out of 1.00

What is the output of the following code?

```
1: class Arthropod
2:   public void printName(double input) { System.out.print("Arthropod"); }
3: }
4: public class Spider extends Arthropod {
5:   public void printName(int input) { System.out.print("Spider"); }
6:   public static void main(String[] args) {
7:     Spider spider = new Spider();
8:     spider.printName(4);
9:     spider.printName(9.0);
10:  }
11: }
```

Select one:

- ☐ a. ArthropodSpider
- ☐ b. SpiderSpider
- ☐ c. The code will not compile because of line 9.
- ☐ d. The code will not compile because of line 5.
- ☒ e. SpiderArthropod
- ☐ f. ArthropodArthropod

## Question

8

Complete

Mark 0.00 out of 1.00

Which of the following are unchecked exceptions? (Choose all that apply)

Select one or more:

- ☒ a. **IllegalArgumentException**
- ☒ b. **Any exception that extends RuntimeException**
- ☒ c. **ArrayIndexOutOfBoundsException**
- ☒ d. **Any exception that extends Exception**
- ☒ e. **NumberFormatException**
- ☐ f. **IOException**

## Question

9

Complete

Mark 0.00 out of 1.00

Who created the first DBMS?

Select one:

- ☒ a. Edgar Frank Codd
- ☐ b. Charles Bachman
- ☐ c. Charles Babbage
- ☐ d. Sharon B. Codd

## Question

10

Complete

Mark 0.00 out of 1.00

Which of the following is not an application of binary search?

Select one:

- ☐ a. To search in an unordered list
- ☐ b. Union of intervals
- ☐ c. To find the lower/upper bound in an ordered sequence
- ☒ d. Debugging

## Question

11

Complete

Mark 1.00 out of 1.00

What is the result of the following?

```
List<String> hex = Arrays.asList("30", "8", "3A", "FF");
```

```
Collections.sort(hex);
```

```
int x = Collections.binarySearch(hex, "8");
```

```
int y = Collections.binarySearch(hex, "3A");
```

```
int z = Collections.binarySearch(hex, "4F");
```

```
System.out.println(x + " " + y + " " + z);
```

Select one:

- ☒ a. 2 1 -3
- ☐ b. 0 1 -2
- ☐ c. None of the above.
- ☐ d. The code doesn't compile.
- ☐ e. 2 1 -2
- ☐ f. 0 1 -3

## Question 12

Complete

Mark 1.00 out of 1.00

Which of the following statements are true? (Choose all that apply)

Select one or more:

- ☒ a. Runtime exceptions are the same thing as unchecked exceptions.
- ☐ b. You can declare only unchecked exceptions.
- ☐ c. You can handle only Exception subclasses.
- ☐ d. Runtime exceptions are the same thing as checked exceptions.
- ☐ e. You can declare only checked exceptions.

## Question 13

Complete

Mark 1.00 out of 1.00

What is the load factor?

Select one:

- ☐ a. Average key size
- ☐ b. Average array size
- ☒ c. Average chain length
- ☐ d. Average hash table length

## Question 14

Complete

Mark 1.00 out of 1.00

How will you increment the rear end in a circular queue?

Select one:

- ☐ a.  $(\text{rear} \% \text{max}) + 1$
- ☒ b.  $(\text{rear} + 1) \% \text{max}$
- ☐ c. None of the above
- ☐ d.  $\text{rear} = \text{rear} + 1$

## Question 15

Complete

Mark 1.00 out of 1.00

The total number of comparisons in a bubble sort is

Select one:

- ☐ a.  $n^2$
- ☐ b.  $n^3$
- ☐ c.  $2n$
- ☒ d.  $n(n-1)/2$

## Question 16

Complete

Mark 1.00 out of  
1.00

Which command is used to remove a stored function from the database?

Select one:

- ☐ a. Remove
- ☐ b. Delete
- ☒ c. Drop
- ☐ d. Erase

## Question 17

Complete

Mark 0.00 out of  
1.00

Which one of the following is not a function of network layer?

Select one:

- ☒ a. routing
- ☐ b. congestion control
- ☐ c. error control
- ☐ d. inter-networking

## Question 18

Complete

Mark 1.00 out of  
1.00

The values appearing in given attributes of any tuple in the referencing relation must likewise occur in specified attributes

of at least one tuple in the referenced relation, according to  
\_\_\_\_\_ integrity constraint.

Select one:

- ☐ a. Specific
- ☒ b. Referential
- ☐ c. Referencing
- ☐ d. Primary

## Question 19

Complete

Mark 1.00 out of  
1.00

Given two tables orders and customers, which SQL query correctly retrieves the names of customers who have placed more than 2 orders?

Table:customers

id	name
1	Alice
2	Bob
3	Charlie

Table:orders

id	customer_id	amount
1	1	100
2	2	200
3	1	150
4	1	300
5	3	250

Select one or more:

- ☒ a. **SELECT DISTINCT c.name  
FROM customers c, orders o  
WHERE c.id = o.customer\_id  
GROUP BY c.id  
HAVING COUNT(\*) >= 2;**
- ☐ b. **SELECT c.name  
FROM orders o  
LEFT JOIN customers c ON o.customer\_id = c.id  
WHERE COUNT(o.id) > 2;**
- ☒ c. **SELECT c.name  
FROM customers c  
JOIN orders o ON c.id = o.customer\_id  
GROUP BY c.id  
HAVING COUNT(o.id) > 2;**
- ☒ d. **SELECT name  
FROM customers  
WHERE id IN (  
SELECT customer\_id  
FROM orders**



```
GROUP BY customer_id  
HAVING COUNT(*) > 2  
);
```

## Question 20

Complete

Mark 0.00 out of  
1.00

Where is the operating system placed in the memory?

Select one:

- ☐ a. in the high memory
- ☒ b. in the low memory
- ☐ c. none of the mentioned
- ☐ d. either low or high memory (depending on the location of interrupt vector)