

## Question 1

Not yet answered

Marked out of  
1.00

In an examination, A got 10% marks less than B, B got 25% marks more than C and C got 20% less than D. If A got 360 marks out of 500, the percentage of marks obtained by D was:

Select one or more:

- ☐ a. 75
- ☒ b. 80
- ☐ c. 85
- ☐ d. 70

## Question 2

Not yet answered

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1.00

Which of the following MySQL queries correctly uses a nested subquery to return the second-highest salary from an employees table?

Select one or more:

- ☐ a. **SELECT salary  
FROM employees  
GROUP BY salary DESC LIMIT 2, 1;**
- ☐ b. **SELECT salary  
FROM employees  
WHERE salary = (SELECT MAX(salary) FROM employees);**
- ☐ c. **SELECT MAX(salary)  
FROM employees  
WHERE salary < (SELECT MAX(salary) FROM employees);**
- ☒ d. **SELECT salary  
FROM employees  
ORDER BY salary DESC LIMIT 1, 1;**

### Question

3

Not yet answered

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What does the following correlated subquery achieve?

```
SELECT name
FROM employees e1
WHERE salary > (SELECT AVG(salary)
                FROM employees e2
                WHERE e2.department_id = e1.department_id);
```

Select one or more:

- ☐ a. Selects all employees, regardless of their salary
- ☐ b. Selects employees whose salary is less than the average salary across all departments
- ☐ c. Selects the employees who are in the highest salary bracket overall
- ☒ d. Selects employees whose salary is greater than the average salary in their department

### Question

4

Not yet answered

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1.00

What is the output of the following code snippet?

```
3: int x = 0;
4: String s = null;
5: if(x == s) System.out.println("Success");
6: else System.out.println("Failure");
```

Select one or more:

- ☐ a. The code will not compile because of line 4.
- ☐ b. Success
- ☒ c. The code will not compile because of line 5.
- ☐ d. Failure

## Question

# 5

Not yet answered

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1.00

Consider the following SQL query:

```
SELECT department, COUNT(employee_id)
FROM employees
GROUP BY department
HAVING COUNT(employee_id) > 10;
```

What is the purpose of the HAVING clause in this query?

Select one or more:

- ☒ a. To filter groups based on the count of employees in each department
- ☐ b. To filter the rows before the GROUP BY operation
- ☐ c. To group the rows based on department and then sort them
- ☐ d. To aggregate the number of employees in each department

## Question

# 6

Not yet answered

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1.00

Which of the following can we add after line 5 for the code to run without error and not produce any output? (Choose all that apply.)

```
4: LongStream ls = LongStream.of(1, 2, 3);
```

```
5: OptionalLong opt = ls.map(n -> n * 10).filter(n -> n < 5).findFirst();
```

Select one or more:

- ☐ a. None of these; the code does not compile.
- ☐ b. None of these; line 5 throws an exception at runtime.
- ☒ c. `opt.ifPresent(System.out.println)`
- ☒ d. `if (opt.isPresent()) System.out.println(opt.getAsLong());`
- ☐ e. `if (opt.isPresent()) System.out.println(opt.get());`
- ☐ f. `opt.ifPresent(System.out::println)`

## Question

# 7

Not yet answered

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1.00

1. 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 8.
- ☐ b. The Rabbit object from line 3 is first eligible for garbage collection immediately following line 12.
- ☒ c. The Rabbit object from line 3 is first eligible for garbage collection immediately following line 6.
- ☐ d. The Rabbit object from line 4 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 9.
- ☐ f. The Rabbit object from line 4 is first eligible for garbage collection immediately following line 11.

## Question

# 8

Not yet answered

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1.00

What will come in place of question mark in the given question: 6, 7, 16, 51, ?, 1045

Select one or more:

- ☐ a. 316
- ☐ b. 454
- ☐ c. 582
- ☒ d. 208

## Question

# 9

Not yet answered

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1.00

```
int n = 16;
```

```
for (int i = n; i > 0; i = i / 2) {  
    printf("%d\n", i);  
}
```

What is the time complexity of the above code

Select one or more:

- ☐ a.  $O(n \log n)$
- ☐ b.  $O(n)$
- ☒ c.  $O(\log n)$
- ☐ d.  $O(n^2)$

## Question 10

Not yet answered

Marked out of 1.00

We have a method that returns a sorted list without changing the original. Which of the following can replace the method implementation to do the same with streams?

```
private static List<String> sort(List<String> list) {  
    List<String> copy = new ArrayList<>(list);  
    Collections.sort(copy, (a, b) -> b.compareTo(a));  
    return copy;  
}
```

Select one or more:

- ☐ a. `return list.stream()  
.compareTo((a, b) -> b.compareTo(a))  
.sort();`
- ☒ b. `return list.stream()  
.sorted((a, b) -> b.compareTo(a))  
.collect(Collectors.toList());`
- ☐ c. `return list.stream()  
.compareTo((a, b) -> b.compareTo(a))  
.collect(Collectors.toList());`
- ☒ d. `return list.stream()  
.compare((a, b) -> b.compareTo(a))  
.collect(Collectors.toList());`
- ☐ e. `return list.stream()  
.sorted((a, b) -> b.compareTo(a))  
.collect();`
- ☐ f. `return list.stream()  
.compare((a, b) -> b.compareTo(a))  
.sort();`

## Question 11

Not yet answered

Marked out of 1.00

Among 5 friends J, K, L, M and N each swimming at a different speed in a race, who swam the second fastest? L swam faster than only two people. J swam faster than K but slower than N. K did not swim the slowest.

Select one or more:

- ☐ a. M
- ☒ b. J
- ☐ c. L

☐ d. K

### Question

## 12

Not yet answered

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1.00

Given the following SQL query, what will be the result?

```
SELECT e1.name
FROM employees e1
WHERE EXISTS (
    SELECT 1
    FROM employees e2
    WHERE e2.manager_id = e1.employee_id
);
```

Select one or more:

- ☐ a. It selects the employees who are not managers.
- ☐ b. It produces an error due to invalid EXISTS syntax.
- ☐ c. It selects all employees.
- ☒ d. It selects the employees who are managers.

### Question

## 13

Not yet answered

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1.00

What is the time complexity of inserting an element into a sorted array of size  $n$ ?

Select one or more:

- ☐ a.  $O(1)$
- ☒ b.  $O(n)$
- ☐ c.  $O(\log n)$
- ☐ d.  $O(n^2)$

### Question

## 14

Not yet answered

Marked out of  
1.00

What is the primary difference between a stack and a queue?

Select one or more:

- ☒ a. The order in which elements are inserted and removed
- ☐ b. The memory allocation strategy
- ☐ c. Their implementation using arrays or linked lists
- ☐ d. The data type of elements they can store

## Question 15

Not yet answered

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1.00

Avinash is Ravi's eldest brother. Ravi is younger to Ajay. Ravi and Ajay are not brothers. Which of the following statements is definitely true?

Select one or more:

- ☒ a. Ajay is younger to Avinash
- ☒ b. Ravi is younger to Avinash
- ☐ c. Ajay is younger to Ravi
- ☐ d. Avinash is younger to Ajay



## Question

# 16

Not yet answered

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1.00

How many compiler errors are in the following code?

```
1: public class RopeSwing {  
2: private static final String leftRope;  
3: private static final String rightRope;  
4: private static final String bench;  
5: private static final String name = "name";  
6: static {  
7: leftRope = "left";  
8: rightRope = "right";  
9: }  
10: static {  
11: name = "name";  
12: rightRope = "right";  
13: }  
14: public static void main(String[] args) {  
15: bench = "bench";  
16: }  
17: }
```

Select one or more:

☐ a. 4

☒ b. 3

☐ c. 2

☐ d. 5

☐ e. 1

☐ f. 0

## Question 17

Not yet answered

Marked out of  
1.00

Select from the following statements and indicate the order in which they would appear to output 10 lines:

Stream.generate(() -> "1")

L: .filter(x -> x.length() > 1)

M: .forEach(System.out::println)

N: .limit(10)

O: .peek(System.out::println)

;

Select one or more:

- ☒ a. N, O
- ☐ b. L, N, M
- ☐ c. L, O, M
- ☐ d. L, N, O
- ☐ e. N, M
- ☐ f. L, N
- ☐ g. L, N, M, O

## Question

# 18

Not yet answered

Marked out of  
1.00

What is printed by the following? (Choose all that apply)

```
1: public class Mouse {  
2: public String name;  
3: public void run() {  
4: System.out.print("1");  
5: try {  
6: System.out.print("2");  
7: name.toString();  
8: System.out.print("3");  
9: } catch (NullPointerException e) {  
10: System.out.print("4");  
11: throw e;  
12: }  
13: System.out.print("5");  
14: }  
15: public static void main(String[] args) {  
16: Mouse jerry = new Mouse();  
17: jerry.run();  
18: System.out.print("6");  
19: } }
```

Select one or more:

- ☐ a. 3
- ☒ b. The stack trace for a NullPointerException
- ☒ c. 4
- ☒ d. 2
- ☐ e. 1
- ☐ f. 5
- ☐ g. 6

## Question 19

Not yet answered

Marked out of 1.00

The average age of 40 students of a class is 15 years. When 10 new students are admitted, the average is increased by 0.2 years. Find the average age of new students?

Select one or more:

- ☐ a. 15.2
- ☐ b. 16.2
- ☐ c. 15
- ☒ d. 16

## Question 20

Not yet answered

Marked out of 1.00

What is the output of the following code?

```
1: interface Nocturnal {  
2:     default boolean isBlind() { return true; }  
3: }  
4: public class Owl implements Nocturnal {  
5:     public boolean isBlind() { return false; }  
6:     public static void main(String[] args) {  
7:         Nocturnal nocturnal = (Nocturnal)new Owl();  
8:         System.out.println(nocturnal.isBlind());  
9:     }  
10: }
```

Select one or more:

- ☐ a. The code will not compile because of line 5.
- ☐ b. true
- ☐ c. The code will not compile because of line 7.
- ☐ d. The code will not compile because of line 2.
- ☐ e. The code will not compile because of line 8.
- ☒ f. false

## Question 21

Not yet answered

Marked out of 1.00

Which of the following sorting algorithms is the fastest for large data?

Select one or more:

- ☐ a. Insertion sort
- ☒ b. Merge sort
- ☐ c. Selection sort
- ☐ d. Bubble sort

## Question 22

Not yet answered

Marked out of 1.00

What is the result of the following code?

```
3: String s = "purr";  
4: s.toUpperCase();  
5: s.trim();  
6: s.substring(1, 3);  
7: s += " two";  
8: System.out.println(s.length());
```

Select one or more:

- ☐ a. The code does not compile.
- ☐ b. 4
- ☐ c. 2
- ☐ d. An exception is thrown.
- ☒ e. 8
- ☐ f. 10

## Question 23

Not yet answered

Marked out of  
1.00

Which of the following are true given the declaration `IntStream is = IntStream.empty()`? (Choose all that apply.)

Select one or more:

- ☒ a. `is.findAny()` returns the type `OptionalInt`.
- ☒ b. `is.average()` returns the type `OptionalInt`.
- ☐ c. `is.findAny()` returns the type `int`.
- ☐ d. `is.sum()` returns the type `OptionalInt`.
- ☒ e. `is.sum()` returns the type `int`.
- ☐ f. `is.average()` returns the type `int`.

## Question 24

Not yet answered

Marked out of  
1.00

What is the time complexity of finding the  $k$ th smallest element in a min-heap of size  $n$ ?

Select one or more:

- ☐ a.  $O(n)$
- ☐ b.  $O(k)$
- ☐ c.  $O(k \log n)$
- ☒ d.  $O(\log n)$

## Question 25

Not yet answered

Marked out of  
1.00

Which of the following queries will return a list of departments with more than 20 employees, sorted by department name?

Select one or more:

- ☒ a. **SELECT department, COUNT(\*)  
FROM employees  
GROUP BY department  
HAVING COUNT(\*) > 20  
ORDER BY department;**
- ☐ b. **SELECT department, COUNT(\*)  
FROM employees  
WHERE COUNT(\*) > 20  
GROUP BY department  
ORDER BY department;**
- ☐ c. **SELECT department  
FROM employees  
GROUP BY department  
HAVING COUNT(\*) > 20  
ORDER BY department DESC;**
- ☐ d. **SELECT department, COUNT(\*)  
FROM employees  
GROUP BY department  
ORDER BY department  
HAVING COUNT(\*) > 20;**

## Quiz Navigation

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