

Software engineer

 Test duration: **45 minutes**  Difficulty level: **Moderate**



1. Which of the following is a statically-typed programming language?

- A) Python
- B) JavaScript
- C) Java
- D) Ruby

Correct answer: C) Java

2. What is the time complexity of searching for an element in a balanced binary search tree?

- A) $O(n)$
- B) $O(\log n)$
- C) $O(n \log n)$
- D) $O(1)$

Correct answer: B) $O(\log n)$

3. Which of the following SQL queries is used to fetch unique values from a column?

- A) `SELECT DISTINCT column_name FROM table_name`
- B) `SELECT UNIQUE column_name FROM table_name`
- C) `SELECT column_name FROM table_name WHERE column_name IS UNIQUE`
- D) `SELECT column_name FROM table_name WHERE column_name IS DISTINCT`

Correct answer: A) `SELECT DISTINCT column_name FROM table_name`

4. In which programming language is indentation used to define the block of code?

- A) Java
- B) C++
- C) Python
- D) C#

Correct answer: C) Python

5. What does the acronym SQL stand for?

- A) Standard Query Language
- B) Structured Query Language
- C) Sequential Query Language
- D) Simple Query Language

Correct answer: B) Structured Query Language

6. Which of the following is a non-relational database?

- A) MySQL
- B) MongoDB
- C) PostgreSQL
- D) Oracle

Correct answer: B) MongoDB

7. What is the primary purpose of an index in a database?

- A) To store data
- B) To organize data
- C) To speed up queries
- D) To back up data

Correct answer: C) To speed up queries

8. Which of the following is a correct way to create a function in Python?

- A) `def functionName[]:`
- B) `def functionName():`
- C) `function functionName():`
- D) `def functionName:`

Correct answer: B) `def functionName():`

9. What is the output of the following Java code snippet?

```
int x = 5;
int y = 10;
System.out.println(x + y);
```

- A) 15
- B) 510
- C) 5 10
- D) Error

Correct answer: A) 15

10. Which of the following is a common use of Git in software development?

- A) Text editing
- B) Version control
- C) File compression
- D) Database management

Correct answer: B) Version control