

Started on	Monday, 9 June 2025, 4:27 PM
State	Finished
Completed on	Monday, 9 June 2025, 5:03 PM
Time taken	35 mins 22 secs
Marks	40.00/50.00
Grade	80.00 out of 100.00

Question 1

Complete

Mark 1.00 out of 1.00

What is the output of the following code?

```
try {  
    throw new Exception("Check");  
} catch (RuntimeException e) {  
    System.out.println("Runtime");  
} catch (Exception e) {  
    System.out.println("Exception");  
}
```

- ☐ a. Runtime error
- ☐ b. Runtime
- ☒ c. Exception
- ☐ d. Compilation error

Question 2

Complete

Mark 1.00 out of 1.00

What does the JVM use the heap memory for?

- ☐ a. Stack frames
- ☒ b. Object allocation
- ☐ c. Method calls
- ☐ d. Thread-local storage

Question 3

Complete

Mark 1.00 out of 1.00

What will be the output?

```
class Animal {  
    void sound() { System.out.println("Generic sound"); }  
}  
class Dog extends Animal {  
    void sound() { System.out.println("Bark"); }  
}  
public class Main {  
    public static void main(String[] args) {  
        Animal a = new Dog();  
        a.sound();  
    }  
}
```

- ☐ a. Runtime error
- ☐ b. Generic sound
- ☐ c. Compilation error
- ☒ d. Bark

Question 4

Complete

Mark 1.00 out of 1.00

What does this print?

```
LocalTime time = LocalTime.of(23, 59, 59);  
System.out.println(time.plusSeconds(2));
```

- ☐ a. 00:01:00
- ☒ b. 00:00:01
- ☐ c. 00:00
- ☐ d. 23:59:61

Question 5

Complete

Mark 0.00 out of 1.00

What will this code output?

```
DateTimeFormatter formatter = DateTimeFormatter.ofPattern("yyyy/MM/dd");  
LocalDate date = LocalDate.parse("2023/08/15", formatter);  
System.out.println(date);
```

- ☐ a. August 15, 2023
- ☐ b. 2023-08-15
- ☒ c. 2023/08/15
- ☐ d. Compilation Error

Question 6

Complete

Mark 1.00 out of 1.00

What is the output?

```
Instant instant = Instant.now();  
ZonedDateTime zdt = instant.atZone(ZoneId.of("UTC"));  
System.out.println(zdt.getOffset());
```

- ☐ a. System timezone offset
- ☐ b. Throws Exception
- ☐ c. null
- ☒ d. +00:00

Question 7

Complete

Mark 1.00 out of 1.00

What is the default parallelism level of ForkJoinPool?

- ☐ a. 1
- ☐ b. Fixed at 4
- ☒ c. Number of available processors
- ☐ d. Number of processors - 1

Question 8

Complete

Mark 1.00 out of 1.00

Which of the following is a checked exception?

- ☒ a. FileNotFoundException
- ☐ b. IllegalArgumentException
- ☐ c. NullPointerException
- ☐ d. ArithmeticException

Question 9

Complete

Mark 1.00 out of 1.00

What will this code print?

```
class Super {
    static void method() {
        System.out.println("Super");
    }
}
class Sub extends Super {
    static void method() {
        System.out.println("Sub");
    }
}
public class Demo {
    public static void main(String[] args) {
        Super obj = new Sub();
        obj.method();
    }
}
```

- ☐ a. Sub
- ☐ b. Compilation error
- ☐ c. Runtime error
- ☒ d. Super

Question 10

Complete

Mark 1.00 out of 1.00

What is the output?

```
try {
    throw new IllegalArgumentException("Illegal");
} catch (IllegalArgumentException e) {
    System.out.println(e.getMessage());
}
```

- ☒ a. Illegal
- ☐ b. IllegalArgumentException
- ☐ c. null
- ☐ d. Exception

Question 11

Complete

Mark 1.00 out of 1.00

Which of the following is true about thread priorities?

- ☐ a. Priority affects the order of execution deterministically
- ☐ b. Priorities are always respected by JVM
- ☒ c. Thread priority is a hint to the thread scheduler
- ☐ d. Higher priority means more CPU time guaranteed

Question 12

Complete

Mark 1.00 out of 1.00

Which method causes the current thread to wait until another completes?

- ☐ a. wait()
- ☐ b. yield()
- ☒ c. join()
- ☐ d. sleep()

Question 13

Complete

Mark 1.00 out of 1.00

Which collection is synchronized?

- ☐ a. LinkedList
- ☐ b. ArrayList
- ☒ c. Vector
- ☐ d. HashMap

Question 14

Complete

Mark 1.00 out of 1.00

What is the output?

```
try {  
    int a = 5 / 0;  
} catch (Exception e) {  
    System.out.print("Catch ");  
}  
finally {  
    System.out.print("Finally");  
}
```

- ☐ a. Finally
- ☐ b. Catch
- ☐ c. Runtime Error
- ☒ d. Catch Finally

Question 15

Complete

Mark 1.00 out of 1.00

What is the output?

```
public class Test extends Thread {  
    public void run() {  
        System.out.println("Thread running");  
    }  
    public static void main(String[] args) {  
        Test t = new Test();  
        t.run();  
        t.start();  
    }  
}
```

- ☐ a. Runtime error
- ☐ b. Compilation error
- ☐ c. Only one "Thread running"
- ☒ d. Thread running Thread running

Question 16

Complete

Mark 1.00 out of 1.00

Which one is not allowed in Java?

- ☐ a. A class with both abstract and non-abstract methods
- ☒ b. Final class with abstract methods
- ☐ c. Abstract class with constructor
- ☐ d. Abstract class with static methods

Question 17

Complete

Mark 1.00 out of 1.00

What is the output?

```
class A {  
    int i = 10;  
    A() {  
        System.out.println(i);  
        i = 20;  
    }  
}  
public class Test {  
    public static void main(String[] args) {  
        A a = new A();  
        System.out.println(a.i);  
    }  
}
```

- ☐ a. 10 10
- ☐ b. 20 20
- ☐ c. 0 10
- ☒ d. 10 20

Question 18

Complete

Mark 1.00 out of 1.00

What is true about finally block?

- ☐ a. It must be used with catch
- ☒ b. It always executes regardless of exceptions
- ☐ c. It is optional
- ☐ d. It executes only if no exception occurs

Question 19

Complete

Mark 0.00 out of 1.00

What is the output of the following code?

```
class Base {
    void show() {
        System.out.println("Base show()");
    }
}
class Derived extends Base {
    void show(int x) {
        System.out.println("Derived show(" + x + ")");
    }
}
public class Main {
    public static void main(String[] args) {
        Base b = new Derived();
        b.show();
    }
}
```

- ☐ a. Runtime error
- ☐ b. Compilation error
- ☐ c. Base show()
- ☒ d. Derived show()

Question 20

Complete

Mark 1.00 out of 1.00

What will this output?

```
Stream<String> s = Stream.of("java", "lambda", "stream");
long count = s.map(String::length).filter(l -> l > 5).count();
System.out.println(count);
```

- ☐ a. 3
- ☐ b. 0
- ☒ c. 2
- ☐ d. 1

Question 21

Complete

Mark 0.00 out of 1.00

What will be the output of the following code?

```
class A {
    int x = 10;
    A() {
        print();
    }
    void print() {
        System.out.println("A: " + x);
    }
}
class B extends A {
    int x = 20;
    void print() {
        System.out.println("B: " + x);
    }
}
public class Main {
    public static void main(String[] args) {
        A obj = new B();
    }
}
```

- ☐ a. A: 10
- ☒ b. B: 20
- ☐ c. Runtime Error
- ☐ d. B: 0

Question 22

Complete

Mark 1.00 out of 1.00

What will happen?

```
class A {
    final void show() {}
}
class B extends A {
    void show() {}
}
```

- ☐ a. Compiles and runs
- ☐ b. Shows nothing
- ☒ c. Compilation error
- ☐ d. Runtime error

Question 23

Complete

Mark 0.00 out of 1.00

What is the output of the following code?

```
LocalDate date = LocalDate.of(2024, Month.FEBRUARY, 29);  
System.out.println(date.plusYears(1));
```

- ☐ a. 2025-02-28
- ☐ b. 2025-03-01
- ☐ c. DateTimeException
- ☒ d. 2025-02-29

Question 24

Complete

Mark 1.00 out of 1.00

What is true about HashSet?

- ☒ a. Uses hashCode and equals
- ☐ b. Allows duplicate elements
- ☐ c. Implements List
- ☐ d. Maintains insertion order

Question 25

Complete

Mark 1.00 out of 1.00

What is the output?

```
public class Test {  
    public static void main(String[] args) {  
        try {  
            System.out.println("Try");  
            return;  
        } finally {  
            System.out.println("Finally");  
        }  
    }  
}
```

- ☐ a. Finally
- ☐ b. Compilation error
- ☐ c. Try
- ☒ d. Try Finally

Question 26

Complete

Mark 1.00 out of 1.00

What is the output of the following?

```
Stream.of(1, 2, 3, 4, 5)
    .filter(i -> i % 2 == 0)
    .map(i -> i * i)
    .findFirst()
    .ifPresent(System.out::print);
```

- ☐ a. 1
- ☐ b. 16
- ☒ c. 4
- ☐ d. 2

Question 27

Complete

Mark 1.00 out of 1.00

What is true about constructors in Java?

- ☒ a. A constructor can call another constructor in the same class using this()
- ☐ b. Constructor name can be different from class name
- ☐ c. Constructors can be inherited
- ☐ d. Constructors must be public

Question 28

Complete

Mark 1.00 out of 1.00

What happens when an object becomes unreachable in Java?

- ☐ a. JVM throws NullPointerException
- ☐ b. It's immediately deleted
- ☐ c. StackOverflowError occurs
- ☒ d. It becomes eligible for GC

Question 29

Complete

Mark 1.00 out of 1.00

What is the output?

```
List<String> list = new ArrayList<>();  
list.add("a");  
list.add("b");  
list.add(1, "c");  
System.out.println(list);
```

- ☐ a. Compilation error
- ☐ b. [c, a, b]
- ☒ c. [a, c, b]
- ☐ d. [a, b, c]

Question 30

Complete

Mark 1.00 out of 1.00

What is true about finalize() in Java?

- ☐ a. It is used for performance
- ☐ b. It is always called before GC
- ☐ c. It guarantees memory cleanup
- ☒ d. It may or may not be called

Question 31

Complete

Mark 1.00 out of 1.00

What will this code output?

```
public class Main {  
    public static void main(String[] args) {  
        Thread t = new Thread(() -> {  
            for (int i = 0; i < 2; i++) {  
                System.out.print(Thread.currentThread().getName() + " ");  
            }  
        });  
        t.setName("Worker");  
        t.start();  
    }  
}
```

- ☐ a. Compiler Error
- ☒ b. Worker Worker
- ☐ c. Thread-0 Thread-0
- ☐ d. Main Main

Question 32

Complete

Mark 1.00 out of 1.00

Which of the following is not true for method overriding?

- ☐ a. Return type must be same or subtype
- ☒ b. Access modifier can be more restrictive
- ☐ c. Method name must be same
- ☐ d. Method must be inherited

Question 33

Complete

Mark 1.00 out of 1.00

What happens if exception is thrown in finally block?

- ☐ a. finally block never throws exception
- ☒ b. Original exception is suppressed
- ☐ c. Compile-time error
- ☐ d. Both exceptions are printed

Question 34

Complete

Mark 1.00 out of 1.00

What is the key feature of ReentrantLock over synchronized?

- ☐ a. Can't be interrupted
- ☐ b. Simpler syntax
- ☒ c. Fairness policy and tryLock() capability
- ☐ d. No need to unlock manually

Question 35

Complete

Mark 1.00 out of 1.00

Which class would you use to represent a date and time with time zone?

- ☐ a. OffsetDateTime
- ☐ b. LocalDateTime
- ☒ c. ZonedDateTime
- ☐ d. Instant

Question 36

Complete

Mark 0.00 out of 1.00

What happens if catch block is missing?

```
try {  
    System.out.println(10 / 0);  
} finally {  
    System.out.println("Done");  
}
```

- ☐ a. Program compiles but doesn't run
- ☒ b. Done
- ☐ c. Compilation error
- ☐ d. ArithmeticException is thrown after finally

Question 37

Complete

Mark 0.00 out of 1.00

Which generation in GC typically contains short-lived objects?

- ☒ a. PermGen
- ☐ b. Tenured
- ☐ c. Old Generation
- ☐ d. Eden Space

Question 38

Complete

Mark 1.00 out of 1.00

What will happen here?

```
ConcurrentHashMap<String, Integer> map = new ConcurrentHashMap<>();  
map.put("A", 1);  
map.compute("A", (k, v) -> v + 1);  
System.out.println(map.get("A"));
```

- ☒ a. 2
- ☐ b. 1
- ☐ c. Compilation error
- ☐ d. NullPointerException

Question 39

Complete

Mark 1.00 out of 1.00

Which Map maintains insertion order?

- ☒ a. LinkedHashMap
- ☐ b. Hashtable
- ☐ c. HashMap
- ☐ d. TreeMap

Question 40

Complete

Mark 1.00 out of 1.00

What is the result?

```
List<String> list = Arrays.asList("a", "bb", "ccc", "dd");  
String result = list.stream()  
    .filter(s -> s.length() == 2)  
    .collect(Collectors.joining("-"));  
System.out.println(result);
```

- ☐ a. a-bb-ccc-dd
- ☒ b. bb-dd
- ☐ c. bbd
- ☐ d. bb

Question 41

Complete

Mark 1.00 out of 1.00

What is ForkJoinPool best suited for?

- ☐ a. UI event handling
- ☒ b. Dividing tasks recursively and processing in parallel
- ☐ c. Long I/O-bound tasks
- ☐ d. Thread communication

Question 42

Complete

Mark 1.00 out of 1.00

Which operation is terminal in streams?

- ☒ a. forEach()
- ☐ b. filter()
- ☐ c. peek()
- ☐ d. map()

Question 43

Complete

Mark 0.00 out of 1.00

What does this code print?

```
import java.util.concurrent.*;
public class Main {
    public static void main(String[] args) {
        ExecutorService service = Executors.newFixedThreadPool(2);
        service.submit(() -> System.out.println("Task 1"));
        service.submit(() -> System.out.println("Task 2"));
        service.shutdown();
    }
}
```

- ☐ a. Compilation error
- ☐ b. Any order of Task 1 and Task 2
- ☐ c. Task 2 Task 1
- ☒ d. Task 1 Task 2

Question 44

Complete

Mark 1.00 out of 1.00

What will be printed?

```
try {
    int[] arr = new int[5];
    arr[5] = 100;
} catch (ArrayIndexOutOfBoundsException e) {
    System.out.print("Caught ");
} finally {
    System.out.print("Finally");
}
```

- ☐ a. Caught
- ☒ b. Caught Finally
- ☐ c. Finally
- ☐ d. Runtime Error

Question 45

Complete

Mark 0.00 out of 1.00

What will this code print?

```
List<String> list = Arrays.asList("apple", "banana", "cherry");
list.stream()
    .filter(s -> s.length() > 5)
    .map(String::toUpperCase)
    .forEach(System.out::print);
```

- ☐ a. banana cherry
- ☒ b. CHERRYBANANA
- ☐ c. BANANACHERRY
- ☐ d. APPLEBANANACHERRY

Question 46

Complete

Mark 0.00 out of 1.00

What does this print?

```
class MyThread extends Thread {  
    public void run() {  
        System.out.print("Hello ");  
    }  
    public static void main(String[] args) {  
        MyThread t1 = new MyThread();  
        t1.start();  
        t1.start();  
    }  
}
```

- ☒ a. Hello Hello
- ☐ b. Hello
- ☐ c. Runtime Exception
- ☐ d. Compilation Error

Question 47

Complete

Mark 0.00 out of 1.00

What is the output?

```
class Test {  
    private void display() {  
        System.out.println("Private");  
    }  
}  
class Sub extends Test {  
    public void display() {  
        System.out.println("Public");  
    }  
}  
public class Demo {  
    public static void main(String[] args) {  
        Test t = new Sub();  
        t.display();  
    }  
}
```

- ☐ a. Runtime error
- ☐ b. Private
- ☐ c. Compilation error
- ☒ d. Public

Question 48

Complete

Mark 1.00 out of 1.00

What is the result of the following code?

```
interface I1 {
    default void display() {
        System.out.println("I1");
    }
}
interface I2 {
    default void display() {
        System.out.println("I2");
    }
}
class C implements I1, I2 {
    public void display() {
        I1.super.display();
    }
}
public class Test {
    public static void main(String[] args) {
        new C().display();
    }
}
```

- ☐ a. Compilation error
- ☒ b. I1
- ☐ c. I2
- ☐ d. I1 I2

Question 49

Complete

Mark 1.00 out of 1.00

What does this print?

```
Map<String, String> map = new HashMap<>();
map.put("a", "apple");
map.put("b", "banana");
map.put("a", "avocado");
System.out.println(map.get("a"));
```

- ☐ a. apple
- ☒ b. avocado
- ☐ c. null
- ☐ d. banana

Question 50

Complete

Mark 1.00 out of 1.00

What is the role of System.gc()?

- ☐ a. Deletes static data
- ☐ b. Prevents GC
- ☐ c. Immediately triggers GC
- ☒ d. Requests GC but does not force it

