Started on	Monday, 9 June 2025, 4:28 PM
State	Finished
Completed on	Monday, 9 June 2025, 4:55 PM
Time taken	27 mins 34 secs
Marks	42.00/50.00
Grade	**84.00** out of 100.00

Question 1

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. Main Main
- ○ b. Thread-0 Thread-0
- ○ c. Compiler Error
- ◉ d. Worker Worker

Question 2

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. Exception
- ○ b. Compilation error
- ○ c. Runtime
- ○ d. Runtime error

Question 3

Complete

Mark 1.00 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 4

Complete

Mark 1.00 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.　B: 0
- ○ b.　A: 10
- ○ c.　B: 20
- ○ d.　Runtime Error

Question 5

Complete

Mark 1.00 out of 1.00

What happens when an object becomes unreachable in Java?

- ○ a.　It's immediately deleted
- ● b.　It becomes eligible for GC
- ○ c.　StackOverFlowError occurs
- ○ d.　JVM throws NullPointerException

Question 6

Complete

Mark 1.00 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. Compilation Error
- ◉ b. Runtime Exception
- ○ c. Hello
- ○ d. Hello Hello

Question 7

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. 2
- ◉ d. 4

Question 8

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. Catch Finally
- ○ d. Runtime Error

Question 9

Complete

Mark 1.00 out of 1.00

Which Map maintains insertion order?

- ○ a. TreeMap
- ◉ b. LinkedHashMap
- ○ c. HashMap
- ○ d. Hashtable

Question 10

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. Try Finally
- ○ b. Finally
- ○ c. Try
- ○ d. Compilation error

Question 11

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 20
- ○ b. 10 10
- ○ c. 0 10
- ○ d. 20 20

Question 12

Complete

Mark 1.00 out of 1.00

What will this code print?

```java
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. Compilation error
- ◉ b. Super
- ○ c. Runtime error
- ○ d. Sub

Question 13

Complete

Mark 1.00 out of 1.00

What will be the output?

```java
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. Bark
- ○ d. Compilation error

Question 14

Complete

Mark 1.00 out of 1.00

What is the output?

```java
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.　Public
- ○ b.　Runtime error
- ○ c.　Private
- ◉ d.　Compilation error

Question 15

Complete

Mark 1.00 out of 1.00

What will be printed?

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

- ○ a.　Runtime Error
- ◉ b.　Caught Finally
- ○ c.　Finally
- ○ d.　Caught

Question 16

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. 23:59:61

  ○ c. 00:00

  ◉ d. 00:00:01

Question 17

Complete

Mark 1.00 out of 1.00

Which of the following is true about thread priorities?

  ○ a. Priorities are always respected by JVM

  ◉ b. Thread priority is a hint to the thread scheduler

  ○ c. Priority affects the order of execution deterministically

  ○ d. Higher priority means more CPU time guaranteed

Question 18

Complete

Mark 1.00 out of 1.00

What is ForkJoinPool best suited for?

  ○ a. Thread communication

  ○ b. Long I/O-bound tasks

  ○ c. UI event handling

  ◉ d. Dividing tasks recursively and processing in parallel

Question 19

Complete

Mark 1.00 out of 1.00

Which one is not allowed in Java?

  ◉ a. Final class with abstract methods

  ○ b. A class with both abstract and non-abstract methods

  ○ c. Abstract class with constructor

  ○ d. Abstract class with static methods

Question 20

Complete

Mark 1.00 out of 1.00

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

- ○ a.   Instant
- ◉ b.   ZonedDateTime
- ○ c.   LocalDateTime
- ○ d.   OffsetDateTime

Question 21

Complete

Mark 0.00 out of 1.00

Which of the following is not true for method overriding?

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

Question 22

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.   I1
- ○ b.   Compilation error
- ○ c.   I2
- ○ d.   I1 I2

Question 23

Complete

Mark 0.00 out of 1.00

Which operation is terminal in streams?

- ⦿ a. peek()
- ◯ b. filter()
- ◯ c. map()
- ◯ d. forEach()

Question 24

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. null
- ◯ b. IllegalArgumentException
- ◯ c. Exception
- ⦿ d. Illegal

Question 25

Complete

Mark 1.00 out of 1.00

Which collection is synchronized?

- ◯ a. HashMap
- ⦿ b. Vector
- ◯ c. ArrayList
- ◯ d. LinkedList

Question 26

Complete

Mark 1.00 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. DateTimeException
- ◯ b. 2025-02-29
- ◯ c. 2025-03-01
- ⦿ d. 2025-02-28

Question 27

Complete

Mark 1.00 out of 1.00

What is true about HashSet?

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

Question 28

Complete

Mark 1.00 out of 1.00

What is true about constructors in Java?

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

Question 29

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.   2
- ○ b.   0
- ○ c.   3
- ○ d.   1

Question 30

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.   Compilation error
- ○ c.   1
- ○ d.   NullPointerException

Question 31

Complete

Mark 0.00 out of 1.00

Which generation in GC typically contains short-lived objects?

○ a. Eden Space

○ b. Tenured

○ c. PermGen

◉ d. Old Generation

Question 32

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. Only one "Thread running"

○ b. Runtime error

◉ c. Thread running Thread running

○ d. Compilation error

Question 33

Complete

Mark 1.00 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. Derived show()
- ○ b. Compilation error
- ● c. Base show()
- ○ d. Runtime error

Question 34

Complete

Mark 1.00 out of 1.00

Which of the following is a checked exception?

- ○ a. IllegalArgumentException
- ○ b. NullPointerException
- ○ c. ArithmeticException
- ● d. FileNotFoundException

Question 35

Complete

Mark 0.00 out of 1.00

What is the default parallelism level of ForkJoinPool?

- ○ a. Fixed at 4
- ○ b. 1
- ● c. Number of processors - 1
- ○ d. Number of available processors

Question 36

Complete

Mark 1.00 out of 1.00

What does the JVM use the heap memory for?

- ◉ a.   Object allocation
- ○ b.   Stack frames
- ○ c.   Method calls
- ○ d.   Thread-local storage

Question 37

Complete

Mark 1.00 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.   2023/08/15
- ○ b.   August 15, 2023
- ○ c.   Compilation Error
- ◉ d.   2023-08-15

Question 38

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.   banana
- ○ b.   apple
- ○ c.   null
- ◉ d.   avocado

Question 39

Complete

Mark 1.00 out of 1.00

What is true about finally block?

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

Question 40

Complete

Mark 1.00 out of 1.00

What will happen?

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

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

Question 41

Complete

Mark 0.00 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.   +00:00
- ○ d.   null

Question 42

Complete

Mark 1.00 out of 1.00

What is the role of System.gc()?

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

Question 43

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. bb
- ⦿ b. bb-dd
- ○ c. a-bb-ccc-dd
- ○ d. bbd

Question 44

Complete

Mark 0.00 out of 1.00

What is true about finalize() in Java?

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

Question 45

Complete

Mark 1.00 out of 1.00

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

- ○ a. yield()
- ⦿ b. join()
- ○ c. wait()
- ○ d. sleep()

Question 46

Complete

Mark 1.00 out of 1.00

What is the key feature of ReentrantLock over synchronized?

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

Question 47

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. Any order of Task 1 and Task 2
- ○ b. Task 2 Task 1
- ◉ c. Task 1 Task 2
- ○ d. Compilation error

Question 48

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, b, c]
- ◉ d. [a, c, b]

Question 49

Complete

Mark 1.00 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. Compilation error
- ◉ c. ArithmeticException is thrown after finally
- ○ d. Done

Question 50

Complete

Mark 0.00 out of 1.00

What happens if exception is thrown in finally block?

○ a.   Compile-time error

○ b.   Both exceptions are printed

◉ c.   finally block never throws exception

○ d.   Original exception is suppressed