Started on	Monday, 9 June 2025, 4:29 PM
State	Finished
Completed on	Monday, 9 June 2025, 4:45 PM
Time taken	16 mins 49 secs
Marks	36.00/50.00
Grade	**72.00** out of 100.00

Question 1

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

Question 2

Complete

Mark 1.00 out of 1.00

What happens when an object becomes unreachable in Java?

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

Question 3

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. Compilation error
- ⦿ b. 2
- ○ c. 1
- ○ d. NullPointerException

Question 4

Complete

Mark 0.00 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. Try Finally
- ⦿ c. Try
- d. Compilation error

Question 5

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

Question 6

Complete

Mark 1.00 out of 1.00

Which collection is synchronized?

○ a. HashMap

○ b. ArrayList

◉ c. Vector

○ d. LinkedList

Question 7

Complete

Mark 0.00 out of 1.00

What is true about finally block?

◉ a. It is optional

○ b. It executes only if no exception occurs

○ c. It always executes regardless of exceptions

○ d. It must be used with catch

Question 8

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. bbd

◉ c. bb-dd

○ d. bb

Question 9

Complete

Mark 0.00 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 10

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.   Generic sound
- ○ b.   Compilation error
- ○ c.   Runtime error
- ◉ d.   Bark

Question 11

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.   Instant
- ◉ d.   ZonedDateTime

Question 12

Complete

Mark 0.00 out of 1.00

Which generation in GC typically contains short-lived objects?

- ◉ a.   Tenured
- ○ b.   Eden Space
- ○ c.   PermGen
- ○ d.   Old Generation

Question 13

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: 0
- ○ c. B: 20
- ○ d. Runtime Error

Question 14

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. Public
- ○ b. Compilation error
- ○ c. Runtime error
- ○ d. Private

Question 15

Complete

Mark 1.00 out of 1.00

Which of the following is a checked exception?

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

Question 16

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

Question 17

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. APPLEBANANACHERRY
- ○ c. CHERRYBANANA
- ● d. BANANACHERRY

Question 18

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

○ b.   Compilation Error

○ c.   Hello Hello

○ d.   Runtime Exception

Question 19

Complete

Mark 0.00 out of 1.00

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

○ a.   yield()

○ b.   sleep()

○ c.   join()

◉ d.   wait()

Question 20

Complete

Mark 1.00 out of 1.00

What is the role of System.gc()?

◉ a.   Requests GC but does not force it

○ b.   Immediately triggers GC

○ c.   Prevents GC

○ d.   Deletes static data

Question 21

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. [c, a, b]
- b. [a, b, c]
- ⦿ c. [a, c, b]
- d. Compilation error

Question 22

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. 2
- c. 16
- ⦿ d. 4

Question 23

Complete

Mark 1.00 out of 1.00

Which operation is terminal in streams?

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

Question 24

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.   Throws Exception

○ b.   null

○ c.   System timezone offset

◉ d.   +00:00

Question 25

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.   Compilation Error

◉ b.   2023-08-15

○ c.   2023/08/15

○ d.   August 15, 2023

Question 26

Complete

Mark 1.00 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 27

Complete

Mark 1.00 out of 1.00

Which one is not allowed in Java?

○ a.   Abstract class with static methods

◉ b.   Final class with abstract methods

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

○ d.   Abstract class with constructor

Question 28

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 29

Complete

Mark 1.00 out of 1.00

What happens if exception is thrown in finally block?

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

Question 30

Complete

Mark 1.00 out of 1.00

Which of the following is true about thread priorities?

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

Question 31

Complete

Mark 1.00 out of 1.00

What is true about HashSet?

     ○   a.   Maintains insertion order

     ○   b.   Allows duplicate elements

     ○   c.   Implements List

     ◉   d.   Uses hashCode and equals

Question 32

Complete

Mark 1.00 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.   Task 1 Task 2

     ○   b.   Compilation error

     ○   c.   Task 2 Task 1

     ◉   d.   Any order of Task 1 and Task 2

Question 33

Complete

Mark 1.00 out of 1.00

What does the JVM use the heap memory for?

     ◉   a.   Object allocation

     ○   b.   Thread-local storage

     ○   c.   Stack frames

     ○   d.   Method calls

Question 34

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.   Exception
- c.   IllegalArgumentException
- d.   Illegal

Question 35

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.   Catch Finally
- b.   Runtime Error
- c.   Catch
- d.   Finally

Question 36

Complete

Mark 1.00 out of 1.00

What is ForkJoinPool best suited for?

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

Question 37

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

Question 38

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

Question 39

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.   00:00
- b.   23:59:61
- ● c.   00:00:01
- d.   00:01:00

Question 40

Complete

Mark 0.00 out of 1.00

What is the default parallelism level of ForkJoinPool?

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

Question 41

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

Question 42

Complete

Mark 1.00 out of 1.00

What is the key feature of ReentrantLock over synchronized?

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

Question 43

Complete

Mark 0.00 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. Sub
- ○ b. Compilation error
- ○ c. Super
- ○ d. Runtime error

Question 44

Complete

Mark 1.00 out of 1.00

What does this print?

```java
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. banana
- ○ c. null
- ◉ d. avocado

Question 45

Complete

Mark 1.00 out of 1.00

What will this output?

```java
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. 1
- ◉ c. 2
- ○ d. 0

Question 46

Complete

Mark 1.00 out of 1.00

What is true about constructors in Java?

○ a. Constructors can be inherited

○ b. Constructors must be public

◉ c. A constructor can call another constructor in the same class using this()

○ d. Constructor name can be different from class name

Question 47

Complete

Mark 0.00 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. Compilation error

◉ b. Only one "Thread running"

○ c. Thread running Thread running

○ d. Runtime error

Question 48

Complete

Mark 1.00 out of 1.00

Which Map maintains insertion order?

◉ a. LinkedHashMap

○ b. TreeMap

○ c. Hashtable

○ d. HashMap

Question 49

Complete

Mark 0.00 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. 0 10
- b. 10 20
- c. 10 10
- d. 20 20

Question 50

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. Compilation error
- c. Shows nothing
- d. Runtime error