Java Collections

1. What is the out of the below code snippet.

List<Integer> list = Arrays.asList(1,2,3,4,5,6);

for (Integer i : list)  
        {  
            list.add(2);  
        }

Answers

1. 2 will be added to list.
2. Compile time error
3. UnsupportedOperationException
4. Null Pointer Exception

Right Answer is : UnsupportedOperationException

1. What is the out put of the below statement

System.out.println('a'+'b'+'c');

1. 294
2. abc

3) Compile time error

4) Runtime Error

Correct Answer is 294

1. What is the out of the below code snippet.

public class MultipleChoiceQues {  
public static void main(String[] args) {

Set<String> hashSet = new HashSet<>(List.of("a", "b", "c"));  
  
Set<String> treeSet = new TreeSet<>(String.CASE\_INSENSITIVE\_ORDER) {  
{  
addAll(List.of("A", "B", "C"));  
}  
};  
System.out.println(hashSet.equals(treeSet));  
System.out.println(treeSet.equals(hashSet));

}}

Answers

1. False,False
2. True True
3. False , True
4. None of the above

Right answer is False, True

4.What is the out of the below code snippet.

public class Mainn{  
public static void main(String[] args) {  
  
List<String> values = new ArrayList<>();  
values.add("1");  
values.add("2");  
  
for (String value : values) {  
if ("2".equals(value)) {  
values.add("3");  
}  
}  
System.out.println(values);  
  
}  
}

Answers:

1. List will add with value 3
2. Compile time error
3. Run time error
4. None of the above

Answer is run time error.

5.What is the out of the below code snippet.

class A {  
static String m1() {  
return "Parent";  
}  
}

class B extends A {  
static String m1() {  
return "Child";  
}  
}

public class ABClient {  
  
public static void main(String[] args) {  
B b= new A();  
System.out.println(b.m1());  
}  
}

Answers

1. Child
2. Parent
3. Compile time error
4. Run time error

Answer is : Compile time error

6.What is the out of the below code snippet.

public class Main {  
public static void main(String[] args) {  
  
List<Integer> list = List.of(1, 2, 3, 4, 5);  
Integer i = list.get(0);  
i = null;  
System.out.println(list);  
  
}  
}

Answers

1. [1,2,3,4,5]
2. [null,2,3,4,5]
3. Run time error.
4. None of the above.

Correct answer is [1,2,3,4,5]

7.What is the out of the below code snippet.

public class Main {  
public static void main(String[] args) {  
  
StringBuilder s1 = new StringBuilder("Core");  
String s2 = "Java";  
s1.append(s2);   
s1.substring(4);   
int foundAt = s1.indexOf(s2);  
System.out.println(foundAt);  
  
}  
}

Answers

1. 4
2. 5
3. Exception
4. Runtime Error.

Correct answer is 4

8.What is the out of the below code snippet.

public class Main {  
public static void main(String[] args) {  
try{  
System.out.println("Try");  
  
}catch (Exception e){  
System.out.println("Catch");  
}  
finally {  
System.out.println("finally");  
}  
}  
}

Answer is

1. Try, Finally
2. Try, Catch, Finally
3. Catch finally
4. Finally

Correct answer is Try, Finally

9.What is the out of the below code snippet.

public class Main {  
public static void main(String[] args) {  
  
System.out.println(String.format("Welcome %d %s %s %s",2,"drive","drive"));  
  
}  
}

Answers are

1. Welcome 2 drive drive
2. Missing format argument exception
3. Welcome 2 drive
4. Welcome 2 drive drive drive

Correct answer is Missing format argument exception.

10.What is the out of the below code snippet.

if(5>6)  
System.out.println("false");  
int result = 5+10+5;  
System.out.println(result);  
System.out.println("true");

Answers :

1. False
2. 20,true
3. True
4. Compile time error.

Correct Answer is 20,true

11.What is the out of the below code snippet.

try {  
if (true) {  
throw new NumberFormatException();  
}  
} catch (RuntimeException e) {  
System.out.println("1");  
  
} finally {  
System.out.println("3");  
}

Answers are

1. Number Format Exception
2. 1,3
3. Number format Exception ,3
4. 3

Correct answer is 1,3

12.What is the out of the below code snippet.

int i=0;  
for(;i<6;i++){  
if(i==2){  
System.out.println(i);  
break;  
} else{  
System.out.println(i);  
}  
}  
System.out.println(i);

Answers are

0,1,2,7

0,1,2,6

0,1,2

0,1,2,2

Correct answer is 0,1,2,2

13.What is the out of the below code snippet.

Optional<String> str = Optional.of(null);  
System.out.println(str.isEmpty());

1. True
2. False
3. Compile time error
4. Run time error

Correct Runtime error.

14.What is the out of the below code snippet.

import java.util.function.Predicate;

public class PredicateTest {  
    public static void main(String[] args) {  
        Predicate < String > notNull =  
            ((Predicate < String > )(arg - > arg == null)).negate();   
 System.out.println(notNull.test(null));  
 }  
}

A. This program results in a compiler error in the line marked with comment #1

B. This program prints: true

C. This program prints: false

D. This program crashes by throwing NullPointerExcept

Correct answer is false.

15.What is the out of the below code snippet.

StringBuffer sb1 = new StringBuffer("abc");  
     StringBuffer sb2 = sb1;

sb1.append("d");

     System.out.println(sb1 == sb2);     
     System.out.println(sb1.equals(sb2));

Answers :

1. True, true
2. True , false
3. False , false
4. False , true

 Correct answer is true , true

16.What is the out of the below code snippet.  
  
     String s1 = "Interview";    
     String s2 = s1;    
     s1 += "ed";  
     System.out.println(s1 == s2); //  
     System.out.println(s1.equals(s2)); //

Answers :

1. True, true
2. True , false
3. False , false
4. False , true

Correct answer is false, false

17.What is the out of the below code snippet.

String s1 = "John";  
  String s2 = new String ("John");  
  HashMap<String, Integer> map = new HashMap<>();  
    map.put(s1,20);  
    map.put(s2,30);  
  
    System.out.println(map.size());

Answers :

1. 1
2. 2
3. Runtime Exception
4. None of the above.

Correct Answer is 1

18.What is the out of the below code snippet.

class MyThread implements Runnable {  
  
    @Overridepublic void run() {  
 System.out.println(Thread.currentThread().getName());  
    }  
}

public class ThreadTest {  
    public static void main(String arg[]) {  
        Thread thread = new Thread(new MyThread());  
        thread.run();  
 thread.run();  
 thread.start();  
 }  
}

a)

main main Thread-0

b)

Thread-0 main Thread-1

c)

main Thread-0 Thread-1

d)

Thread-0 Thread-1 Thread-2

**Answer:**

a)main main Thread-0

19.What is the out of the below code snippet.

class Worker extends Thread {  
    @Overridepublic void run() {  
        System.out.println(Thread.currentThread().getName());  
    }  
}

public class Master {  
    public static void main(String[] args) throws InterruptedException {  
 Thread.currentThread().setName("Master” );  
 Thread worker = new Worker();  
      worker.setName("Worker ");  
        worker.start();  
        Thread.currentThread().join();  
 System.out.println(Thread.currentThread().getName());  
 }  
}

**Which one of the following options correctly describes the behavior of this program?**  
a) When executed, the program prints the following: “Worker Master ”.  
b) When executed, the program prints “Worker ”, and after that the program hangs (i.e., does not terminate).  
c) When executed, the program prints “Worker ” and then terminates.  
d) When executed, the program throws an IllegalMonitorStateException.  
e) The program does not compile and fails with multiple compiler errors.

Correct Answer is B

20.What is the out of the below code snippet.

public class Main {  
 public static void main(String[] args) {  
  
 List<Integer> input = List.*of*(1,4,6,7,8);  
  
 Integer reduce = input.stream().reduce(0, (a, b) -> a + b);  
 System.*out*.println(reduce);  
  
 }  
}

Options are:

1. 26
2. Compiler Error
3. Runtime Error
4. None of the above

Correct answer is 26

21. What is the output of the below code snippet

import java.util.List;  
class Worker extends Thread {  
 @Override  
 public void run() {  
 System.*out*.println(Thread.*currentThread*().getName());  
 }  
}  
public class Main {  
 public static void main(String[] args) throws InterruptedException {  
  
 Thread.*currentThread*().setName("Master ");  
 Thread worker = new Worker();  
 worker.setName("Worker ");  
 worker.start();  
 Thread.*currentThread*().join();  
 System.*out*.println(Thread.*currentThread*().getName());  
 }  
}

**Which one of the following options correctly describes the behavior of this program?**  
a) When executed, the program prints the following: “Worker Master ”.  
b) When executed, the program prints “Worker ”, and after that the program hangs (i.e., does not terminate).  
c) When executed, the program prints “Worker ” and then terminates.  
d) When executed, the program throws an IllegalMonitorStateException.  
e) The program does not compile and fails with multiple compiler errors.

**Correct Answer is B**.

22. What is the output of the below code snippet

import java.util.concurrent.ExecutorService;  
import java.util.concurrent.Executors;  
public class Test {  
 static int *n*=0;  
 synchronized static void add() {  
 *n*++;  
 System.*out*.println(*n*);  
 }  
 public static void main(String[] args) {  
 ExecutorService service = Executors.*newFixedThreadPool*(4);  
 Runnable r = () -> *add*();  
 for(int i = 0; i < 4; i++) {  
 service.execute(r);  
 }  
 service.shutdown();  
 }  
}

Options are

1. 2,2,3,4
2. 1,2,3,4
3. 2,3,4,2
4. Program hangs.

Correct Answer is: 1,2,3,4

23. What is the output of the below code snippet

public class Test {  
 static int *n*=0;  
 static void add() {  
 *n*++;  
 System.*out*.println(*n*);  
 }  
 public static void main(String[] args) {  
 List<Integer> list = new CopyOnWriteArrayList<>();  
 list.add(10); list.add(20); list.add(30);  
 Iterator<Integer> it = list.iterator();  
 while(it.hasNext()) {  
 int i = it.next();  
 System.*out*.print(i + " ");  
 // No exception thrown  
 list.set(list.size() -1, i \* 10);  
 // it.remove(); throws an exception  
 }  
 System.*out*.println(list);  
  
 }  
}

Options are

1. 10 20 30 [10, 20, 300]
2. [10,20,300]
3. 10 20 200 [10, 20, 2000]
4. Program hangs.

Correct Answer is a

# 24. What is the purpose of the wait() method in Java threads?

a) To pause the execution of a thread.

b) To terminate a thread.

c) To notify other threads to resume execution.

d) To release the lock held by the thread.

Correct Answer is To pause the execution of a thread.

# 25. Which method is used to start the execution of a thread?

# **a) start()**

# **b) run()**

# **c) execute()**

# **d) begin()**

## Answer:

a) start()

# 26. What is the purpose of the join() method in Java threads?

# **a) To interrupt the execution of a thread.**

# **b) To wait for a thread to finish its execution.**

# **c) To schedule the execution of a thread.**

# **d) To notify a thread to stop execution.**

## Answer:

b) To wait for a thread to finish its execution.

27. When variable defined using the volatile key word variable is stored in stack memory?

# **a) True**

# **b) False**

# **Correct Answer is False**

# 28. Which keyword is used to throw an exception explicitly in Java?

# **a) throw**

# **b) catch**

# **c) try**

# **d) finally**

# **Correct answer is throw**

# 29. Which exception will the following code throw?

public class Test {

public static void main(String[] args) {

Object obj = new Integer(3);

String str = (String) obj;

System.out.println(str);

}

}

# **A. ArrayIndexOutOfBoundsException B. ClassCastException C. IllegalArgumentException D. NumberFormatException E. None of the above.**

**Correct answer is B. ClassCastException**

# 30. What is the correct term for the operations that produce a result from a stream but do not modify its source?

a) Mutable operations

b) Intermediate operations

c) Terminal operations

d) Source operations

**Correct Answer is Terminal Operation**

31. What does the Stream.peek method do?

a) Consumes and removes an element from the stream

b) Performs an action on each element of the stream without modifying it

c) Filters elements based on a predicate

d) Reduces the stream to a single summary element

Correct Answer is b) Performs an action on each element of the stream without modifying it

 32. What type of operation is Stream.filter**?**

a) Terminal

b) Intermediate

c) Mutable

d) Source

Correct Answer is Intermediate.

33. What is the main advantage of using parallel streams in Java?

a) They simplify the syntax for creating streams

b) They make the code easier to read and maintain

c) They can improve performance by utilizing multiple cores of the processor

d) They prevent concurrent modification exceptions

Correct answer is hey can improve performance by utilizing multiple cores of the processor

34. Which of these is not a method defined in the Map interface?

a) put()

b) get()

c) remove()

d) add()

Correct answer is add();

## 35. What is the primary difference between HashSet and TreeSet in Java Collections?

a) HashSet is ordered, while TreeSet is unordered

b) HashSet is faster than TreeSet

c) TreeSet maintains elements in a sorted order, while HashSet does not

d) TreeSet allows duplicate elements, while HashSet does not

Correct answer is c) TreeSet maintains elements in a sorted order, while HashSet does not

## 36. In the below code snippet select the right answer

public class Parent {  
  
 public Object m1() {  
 return null;  
 }  
}  
  
class Child extends Parent {  
  
 public String m1() {  
 return "abc";  
  
 }  
  
}

Options

a) Compiletime Error

b) Runtime error

c) Program runs without any error

d) None of the above.

Correct answer is Program runs without any error

37. What is the out put of the below code snippet.

public class Main {  
  
 public void m1(Object o){  
 System.*out*.println("In first");  
 }  
  
 public void m1(int i){  
 System.*out*.println("Inside second");  
  
 }  
  
  
 public static void main(String[] args) {  
 Main i= new Main();  
 i.m1('c');  
  
  
 }  
  
}

Options :

1) In first

2) Inside second

3) In first , Inside second

4) None of the above

Correct answer is Inside second

38. What is the output of below code snippet ?

public class Main {  
  
 public void m1(Object o){  
 System.*out*.println("In first");  
 }  
  
 public void m1(int i){  
 System.*out*.println("Inside second");  
  
 }  
  
  
 public static void main(String[] args) {  
 Main i= new Main();  
 i.m1('c');  
  
  
 }  
  
}

Options :

a) true , true

b) false , false

c) true, flase

d) false , true

39. What is the output of below code snippet?

39. public class In {  
  
 public void m1(StringBuilder sb){  
 System.*out*.println("In first");  
 }  
 public void m1(String s){  
 System.*out*.println("Inside second");  
  
 }  
  
  
 public static void main(String[] args) {  
 In i= new In();  
 i.m1(null);  
 }  
  
}

Options :

a) Runtime Error

b) Exception

c) Program compiles successfully

d) Compile time error

Correct answer is : compile time error.

40. What is the output of below code snippet?

public class In {  
  
  
 public void m1(String s) throws ClassNotFoundException{  
 System.*out*.println("Inside first");  
  
 }  
}  
class Out extends In {  
  
 @Override  
 public void m1(String s) throws ClassCastException  
 {  
 System.*out*.println("Inside second");  
  
 }  
  
  
 public static void main(String[] args) {  
 In i= new In();  
 i.m1("abc");  
 }  
  
}

Options

a) Inside second

b) Inside second

c) Compile Time error

d) Runtime Error.

Correct answer is Compile Time error.

41. What is the output of below code snippet?

public class In {  
  
 public static void main(String[] args) {  
  
 System.*out*.println("inside main first ");  
 }  
 public static void main(String args) {  
  
 System.*out*.println("inside main second");  
 }  
  
}

Options are

a) inside main second

b) inside main first

c) compile time error.

d)Runtime error.

Correct answer is inside main first