CJ Mock Paper

1. If user wants to store Employee class objects in a HashSet, which method needs to be overridden to check whether two Employee objects are same?
   Note: If name of employee is same, then objects are considered as same

   A. hashCode()
   B. equals()
   C. compareTo()
   D. Both A and B

2. Which of the following statements is not true regarding serialization in java?

   A. Static data members and transient data members cannot be serialized; only non-static data members are saved via serialization.
   B. For serializing object, writeObject() method of ObjectOutputStream class is used.
   C. To serialize it's object, class should implement java.io.Serializable interface.
   D. None of the above

3. What will be the output of the below code?

```
public static void main(String[] args){
        String[] arr = { "ispace",".", "iphone", "." };
        List<String> list = (List<String>) Arrays.asList(arr); // line 1
        arr[3] = ".com";                                        // line 2
        for (String word : list) {
        System.out.print(word);
        }
}
```

   A. ispace.com
   B. ispace.iphone.com
   C. compilation error at line 1
   D. compilation error at line 2

4. What will be the output of the following code snippet?

```
String x = "xyz";
x.toUpperCase();
String y = x.replace('Y', 'y');
y = y + "abc";
System.out.println(y);
```

   A. abcXyZ
   B. abcxyz
   C. xyzabc
   D. XyZabc

5. Which of the following is true for code snippets a and b?

```
(a)
public class A{
        public static void main(String args[]){
                String s3 = "Value1";
                String s2 = "Value2";
                for (int i = 0; i< 100000; ++i) {
                        s3 = s3 + s2;
                }
        }
}
```

(b)

```
public class B{
        public static void main(String args[]){
                StringBuffer s3 = new StringBuffer("Value1");
                String s2 = "Value2";
                for (int i = 0; i< 100000; ++i) {
                        s3.append(s2);
                }
        }
}
```

A. Both (a) and (b) will compile and run successfully, (a) code block will perform better then b block.
B. Both (a) and (b) will compile and run successfully, (b) code block will perform better then (a) block.
C. Both (a) and (b) will not compile
D. Both (a) and (b) will throw runtime exception

6. What will be the output of the following program?

```
import java.io.*;
class House implements Serializable{
        public House(int number)      {
                super();
                this.number =  number;
        }
        Wall    wall;
        int number;
}
class Wall      {
        int length;
        int breadth;
        int color;
}
public class TestSer{
        public static void main(String[] args) throws Exception       {
                FileOutputStream      fileStream      =       new
                FileOutputStream("Rectangle.ser");
                ObjectOutputStream  objectStream  =       new
                ObjectOutputStream(fileStream);
                House h = new House(1);
                h.wall = new Wall();
                objectStream.writeObject(h);
                objectStream.close();
        }
}
```

A. Compile time error
B. Runtime time exception
C. Will compile and run successfully
D. None of these

7. What happens if constructor of class A is made private?

A. Any class can instantiate objects of class A
B. Objects of class A can be instantiated only within the class where it is declared
C. Inherited class can instantiate objects of class A
D. Classes within the same package as class A can instantiate objects of class A

8. Which of the following uses newFixedThreadPool() method to create fixed thread pool in Executor Framework?

   A. ExecutorService
   B. Executors
   C. Callable
   D. Runnable

9. What happens if ServerSocket is not able to listen on the specified port?

   A. The system exits gracefully with appropriate message
   B. The system will wait till port is free
   C. IOException is thrown while opening the socket
   D. PortOccupiedException is thrown

10. Which of the following method will make a thread to wait till other thread finishes the execution?

   A. yield()
   B. suspend()
   C. sleep(1000)
   D. join()

11. What happens when myMethod method is invoked?

```
interface MyInterface {
        int x = 35;
        void myMethod();
}
class Test implements MyInterface {
        public void myMethod() {
        x = 78;
        System.out.println(x);
        }
}
```

   A. prints 35
   B. prints 78
   C. compilation error
   D. runtime error

12. What will be the output of the following java program?

```
class Test
{
        public static void main(String args[ ]) {
        int localValue=5;
        calculate(localValue);
        System.out.println(localValue);
         }
        static void calculate(int calcValue){
        calcValue= calcValue*100;
        }
}
```

   A. Compiler error
   B. Runtime Exception
   C. 500
   D. 5

13. What will be the output of following code snippet?

```
public class MyClass{
        public static void main(String[] args) {
                List<Number> numberList = new ArrayList<Number>();
                numberList.add(2);
                numberList.add(3);
                foo(numberList);
        }
         static void foo(List<? Super Double> numList) {
                System.out.print(numList.get(0));
                System.out.print(numList.get(1));
        }
}
```

A. Runtime Exception - NullPointer
B. Runtime Exception - IndexOutOfBound
C. Compile time error
D. 23

14. In reflection _____ method is used to create objects of any class at runtime.

A. Class.forName()
B. getConstructor() method of Class
C. getObject method of Class
D. All of the above

15. To execute a stored procedure "insertDetails" in a database server, which of the following code snippet can be used?

A. Statement stmt = connection.createStatement();
   stmt.execute("insertDetails()");
B. CallableStatement clbstmt = connection.prepareCall("{call insertDetails()}");
   clbstmt.execute();
C. StoreProcedureStatement spstmt = connection.createStoreProcedure
   ("insertDetails()");
   spstmt.executeQuery();
D. PrepareStatement pstmt= connection.prepareStatement("insertDetails()");
   pstmt.execute();

16. Reason(s) why we need Wrapper Classes is /are:

A. null is a possible value
B. use it in a Collection
C. Methods that support Object like creation from other types like String, Integer,
   number2 = new Integer ("55"); //String
D. All of these

17. What will be the output of below program?

```
class Animal   {
        String  name;
        public Animal() {
                super();
                this.name = "Default Name";
        }
        public static void main(String[] args) {
```

```
        Animal animal = new Animal();
        System.out.println(animal);
    }
}
```

A. Will give compile time error
B. Will throw runtime exception
C. Will compile and run successfully printing the hash code for animal object
D. None of these

18. Which of the following statement(s) is (are) true for channels in NIO class hierarchy?

A. Channels can read data from buffers
B. Channels can write data to buffers
C. Channels can do asynchronous read and write operations
D. All of the above

19. What is the output from the following code?

```
String s = "Advanced Computing";
String s1 = s.substring(0,7);
String s2 = s1.substring(2);
String s3 = s2.substring(0,3);
System.out.println(s3);
```

A. van
B. nce
C. computing
D. ad

20. Predict the output of the following Java Program.

```
public class Juggler extends Thread {
    public static void main(String[] args) {
        try{  Thread t = new Thread(new Juggler());
                Thread t2 = new Thread(new Juggler()); }
            catch (Exception e) {
                System.out.print("e ");}
    }
    public void run() {
        for (int i = 0; i< 2; i++) {
        try{        Thread.sleep(500);
                    System.out.print("T "+ i); }
            catch (Exception e) {
                    System.out.print("e2 "); }
            System.out.print(Thread.currentThread().getName()+ " ");
            }
    }
}
```

A. e2 e
B. T 0T 1T 0T 1
C. No Output
D. T 0T 0T 1T 1

21. Predict the output of the following Java Program.

```
class Clidder {
        private final void flipper() {
                System.out.println("Clidder");
        }
}
```

```
public class Clidlet extends Clidder {
        public final void flipper() {
                System.out.println("Clidlet");
        }
        public static void main(String[] args) {
                new Clidlet().flipper();
        }
}
```

A. Clidlet
B. Clidder
C. Compile Error
D. Runtime Error

22. What will be the output of the following program?

```
public class TestMap{
        public static void main(String[] args) {
                Map<String,    String> map = new HashMap<String, String>();
                map.put("key1","value1");
                map.put("key2", "value2");
                map.put("key3", "value3");
                Iterator<String> iterator = map.keySet().iterator();
                while(iterator.hasNext()){
                        System.out.println(map.get(iterator.next()));
                        map.put("key4", "value4");
                }
        }
}
```

A. value1
   value2
   value3
B. value 1
   Exception in thread "main" java.util.ConcurrentModificationException
C. Exception in thread "main" java.util.ConcurrentModificationException
D. Compiler error

23. Which exception must be caught for below statement?

```
FileReader f=new FileReader("demo");
```

A. IOException
B. FileNotFoundException
C. EOFException
D. InputTypeMismatch

24. What will be the output of the following try catch block?

```
class Test
{
        public static void main(String args[ ]){
                try{
                double x=0.0;
                throw new Exception(“Thrown”);
                return;                                 // Line 6
                }
                catch(Exception e){
                System.out.println(“Exception caught”);
                return;                                 // Line 10
                }
                finally{
```

```
                System.out.println("finally");
                }
        }
}
```

A. Exception caught finally
B. Thrown Exception caught finally
C. Unreachable statement error at line 6
D. Unreachable statement error at line 10

25. How many user threads will gets created when we execute the below program?

```
public class TestMain{
        public static void main(String[] args) {
                System.out.println("In main method");
                Thread t1=new Thread("thread1");
                Thread t2=new Thread("thread2");
                t1.start();
                t2.start();
        }
}
```

A. 1
B. 2
C. 3
D. 4

26. _____ class object is used for Authentication in session while using Java Mail API.

A. Authenticator
B. Multipart
C. Transport
D. None of the above

27. What will be the output of the below code?

```
try{
int myNum = 0;
myNum = Integer.parseInt("123A");
}
catch(Exception e){
System.out.print(myNum);
}
```

A. 0
B. 123A
C. Exception: NumberFormatException
D. Compilation Error

28. What will be the output of the following java program?

```
public class TestLambda{
    public static void main(String[] args) {
            TestLambda.lambdaExpressionPredicate();
    }
    public static void lambdaExpressionPredicate () {
        List<Integer> numbers = Arrays.asList(1,3, 4, 6, 2, 7);
        numbers.stream().filter((number) -> (number % 2 != 0)).forEach(
        number ->System.out.print(number + " "));
    }
}
```

A. 1 3 4 6 2 7
B. 1 2 3 4 6 7
C. 1 3 7
D. 4 6 2

29. What will be the output of following code?

```
class Demo {
        public void show() {
            ArrayList<String> list = new ArrayList<String>();
                list.add("banana");
                list.add("apple");
                Iterator itr = list.iterator();
                Collections.sort(list);                    // Line 7
                while (itr.hasNext()) {
                System.out.print(itr.next() + " ");
            }
        }
}
public class Main {
        public static void main(String[] args) {
                Demo demo = new Demo();
                demo.show();
        }
}
```

A. Compilation error at line 7
B. apple banana
C. banana apple
D. ConcurrentModificationException

30. What will be the output of the below code?

```
abstract class Bird{
        static void showAge(){
        int age=15;                          //Line 2
        System.out.println(age);
   }
 }
 public class AngryBird extends Bird{
        public static void main(String args[]){
        AngryBird a=new AngryBird();
        a.showAge();
        }
}
```

A. Compilation succeeds and give output 15
B. Compilation fails because of an error at line 2
C. Compilation succeeded but runtime exception
D. Compilation succeeds but no output will be displayed

31. What will be the output of the program?

```
class Client    {
        private int id;
        public Client(int id)    {
                this.id =       id;
        }
        public static void main(String args[]){
                Client  client1 =       new Client(25);
                Client  client2 =       new Client(25);
                System.out.println(client1 == client2);
        }
}
```

A. True
B. False
C. Compile time error
D. Runtime Exception

32. You want subclasses in any package to have access to members of a superclass. Which is the most restrictive access that accomplishes this objective?

A. public
B. protected
C. private
D. default

33. If user wants to read data in string format from a file which of the following classes can be used?

A. DataInputStream
B. BufferedReader
C. ObjectOutputStream
D. Both A and B

34. wait(), notify() & notifyAll() are methods of which of the following class or interface?

A. Thread class
B. Runnable interface
C. Object class
D. None of the above

35. Which of the following is FALSE about abstract classes in Java?

A. If we derive an abstract class and do not implement all the abstract methods, then the derived class should also be marked as abstract using 'abstract' keyword.
B. Abstract classes can have constructors.
C. A class can be made abstract without any abstract method.
D. Abstract class cannot have static methods

36. Which of the following is right way of calling getData function?

```
interface MyCompare<T,F> {
        F getData(T a);
}
```

A. MyCompare<String,Boolean> ob=s->{return s.length()};
ob.geData("Hello")
B. MyCompare<String,String> ob=s->{return s.length()};
ob.getData("Hello")
C. MyCompare<String,Integer> ob=s->{return s.length()};
ob.getData("Hello")
D. None of the above

37. Which of the following can help in avoiding NullPointerException and null checks in java 8?

A. Optional
B. Required
C. NotNull
D. NotRequired

38. Which of the following is the method provided by the Object class?

A. getClass()
B. hashcode()
C. equals()
D. All of the above

39. Which of the following will open file in append mode?

A. BufferedOuputStream bos=new BufferedoutputStream();
B. BufferedOuputStream bos=new BufferedoutputStream(new FileOutputStream("test.txt"));
C. BufferedOuputStream bos=new BufferedoutputStream(new FileOutputStream("test.txt",true));
D. BufferedOuputStream bos=newBufferedoutputStream(new FileOutputStream("test.txt",false));

40. Which of the following is a correct difference between HashMap and ConcurrentHashMap?

A. HashMap maintains the inserted elements in random order while ConcurrentHashMap maintains elements in the sorted order.
B. HashMap is synchronized while ConcurrentHashMap is not synchronized.
C. HashMap can have one null key and any number of null values while ConcurrentHashMap does not allow null keys and null values.
D. None