Java Test –II

Max Marks: 30

Duration : 1 hr

1. Which of the following have synchronized methods.

1 HashSet 2 Vector 3 HashTable

A 1 & 2

B 1,2,3

C 2 & 3

D Only 1

2 Which of these support duplicate elements

A List

B Set

C HashMap

D HashSet

3.

Which of the following is/are false regarding a Map.

1. A Map Stores key-value pairs.
2. Can have duplicate values but not keys.
3. Can have duplicate keys but not values
4. Does not support Iterator
5. Derives from Collection interface.

4

Which collection class allows you to access its elements by associating a key with an element’s

value, and provides synchronization?

A. java.util.SortedMap

B. java.util.TreeMap

C. java.util.TreeSet

D. java.util.HashMap

E. java.util.Hashtable

5

Which of the following classes do not implement Comparable Interface

a Byte

b Integer

c String

d Object

6

Given the following,

1. class MyThread extends Thread {

2.

3. public static void main(String [] args) {

4. MyThread t = new MyThread();

5. t.run();

6. }

7.

8. public void run() {

9. for(int i=1;i<3;++i) {

10. System.out.print(i + "..");

11. }

12. }

13. }

what is the result?

A. This code will not compile due to line 4.

B. This code will not compile due to line 5.

C. 1..2..

D. 1..2..3..

E. An exception is thrown at runtime.

7

Which of the following methods are defined in the Thread Class.

A run()

B start()

C join()

D wait()

E all

8. The following block of code creates a Thread using a Runnable target:

Runnable target = new MyRunnable();

Thread myThread = new Thread(target);

Which of the following classes can be used to create the target, so that the preceding code

compiles correctly?

A. public class MyRunnable extends Runnable{public void run(){}}

B. public class MyRunnable extends Object{public void run(){}}

C. public class MyRunnable implements Runnable{public void run(){}}

D. public class MyRunnable implements Runnable{void run(){}}

E. public class MyRunnable implements Runnable{public void start(){}}

9 Given the following,

1. class MyThread extends Thread {

2.

3. public static void main(String [] args) {

4. MyThread t = new MyThread();

5. t.start();

6. System.out.print("one. ");

7. t.start();

8. System.out.print("two. ");

9. }

10.

11. public void run() {

12. System.out.print("Thread ");

13. }

14. }

what is the result of this code?

A. Compilation fails

B. An exception occurs at runtime.

C. Thread one. Thread two.

D. The output cannot be determined.

10

Which class or interface defines the wait(), notify(), and notifyAll() methods?

A. Object

B. Thread

C. Runnable

D. Class

11 Which two are *true*?

A. A static method cannot be synchronized.

B. If a class has synchronized code, multiple threads can still access the nonsynchronized code.

C. Variables can be protected from concurrent access problems by marking them with the

synchronized keyword.

D. When a thread sleeps, it releases its locks.

E. When a thread invokes wait(), it releases its locks.

12

Which of the following Classes when instantiated creates a file if it is not existing.

A FileOutputStream

B FileWriter

C File

D All the above

13

Which of the following are marker Interfaces

A Externalizable

B Serializable

C Thread

D Comparable

14

Which of the following are correct statements.

A FileWriter fw=new FileWriter(“test.txt”);

B FileWriter fw=new FileWriter(new File(“test.txt”));

C FileOutputStream fout=new File(“test.txt”);

D File f1=new File(“test.txt”,”rw”);

15

Which of the classes have methods to read and write a specific data like int,char,float,boolean etc data from/to a file.

A FileWriter

B FileOutputStream

C RandomAccessFile

D BufferedWriter

16.

Study the following code and answer the questions:

class A (5 marks)

{

public void m1()

{

//statement 1

//statement 2

//statement 3

}

}

1. What are the different ways of making method m1 thread safe.

Rewrite the above code (4)

2 What happens when you make m1() static.? (1)

17 (5 marks)

TreeSet<Item> its=**new** TreeSet<Item>();

its.add(**new** Item(34,"chocolates",14.5));

its.add(**new** Item(12,"nuts”,190.0));

its.add(**new** Item(18,"sauce",200));

its.add(**new** Item(15,"notebook",35));

System.*out*.println(its);

A When is a TreeSet used.

B What Exception above code throws.

C Which interface should the class containing the code implement.

D Which method should be implemented

E What type does the method return.

18

Complete the following programs.write code in place of comments.

(5 marks)

public class Demo{

//main

{

//Open a file test.txt for reading

//read and print the content of the file on the console.

}

}

1. Handle the specific exceptions in the above code .
2. Use proper coding practices.

Coding 3 marks

Exceptions and coding practice 2 marks