Cghapter-17 and 18 Core Java

1. What is a text file and what is a binary file?

Ans. Although it is not technically precise, a text file consists of a sequence of characters and a binary file consists of a sequence of bits.

2. How does the program check if a file already exists?

Ans. Create a File object and use its exists() method to test if a file exists.

3. Describe the characteristics of recursive methods.

Ans. One or more base cases (the simplest case) are used to stop recursion. Every recursive call reduces the original problem, bringing it increasingly close to a base case until it becomes that case.

4. What are the differences between text I/O and binary I/O?

Ans. Binary I/O reads a byte from a file and copies it directly to the memory with any conversion, vice versa. Text I/O requires encoding and decoding. The JVM converts a Unicode to a file specific encoding when writing a character and coverts a file specific encoding to a Unicode when reading a character.

5. The read() method in InputStream reads a byte. Why does it return an int instead of a byte?

Ans. The value of a byte is returned as an int in the range 0 to 255. If no byte is available because the end of the stream has been reached, the value -1 is returned.

6. Find the abstract methods in InputStream and OutputStream.

Ans. The only abstract method in InputStream is read() and the only abstract method in OutputStream is write(int).

7. How do you obtain the midpoint between two points?

The midpoint between p1 and p2 is ((p1.x + p2.x)/2, (p1.y + p2.y)/2), which can be obtained by invoking p1.midpoint(p2).

Q. ------ is the one that calls itself. And...........is the one that never stops.

A. A recursive method, An infinite recursion

B. An infinite recursion,A recursive method

C. An infinite recursion, An infinite recursion

D. None Of the above.

Ans. A

Q. Show the output of the following program:

public class Test {

public static void main(String[] args) {

xMethod(5);

}

public static void xMethod(int n) {

if (n > 0) {

System.out.print(n + " ");

xMethod(n - 1);

}

}

}

A. The output is 1 2 3 4 5

B. The output is 5 4 3 2 1

C. The output is 1 3 5 2 4

D. The output is 1 4 3 2 5

Ans.B

Q. Will the program work if the directory is empty (i.e., it does not contain any files)?

A. Yes.

B. No

Ans. A

Q. a ----- file consists of a sequence of characters and a --- file consists of a sequence of bits.

A. Binary, Text

B. Document, Text

C. Text, Binary

D. Document, Binary

Ans. C

Q. Can you view a binary file using a text editor?

A. Yes

B. No

Ans. No

Q. A Java I/O object is called a ----. An object for reading data is called an --------- and an object for writing data is called an ..........

A. input steam, output stream, Stream

B. input steam,Stream, output stream

C. Stream,output stream, input steam

D. Stream, input steam, output stream

Ans. D

Q. 11. How do you close streams?

A. Invoking the close() method.

B. Using the try-catch-resource to automatically close the stream.

C. None of Above

D. Both A and B

Ans. D

Q. What will happen if you attempt to create an input stream on a nonexistent file?

What will happen if you attempt to create an output stream on an existing file?

Can you append data to an existing file?

A. No error will occur.

B. A FileNotFoundException would occur if you attempt to create an input stream for a nonexistent file.

C. Complile Fails

D. Runtime Exception would occur

Ans. B

Q. Which of the following statements are true?

i. Any recursive method can be converted into a nonrecursive method.

ii. Recursive methods take more time and memory to execute than nonrecursive methods.

iii. Recursive methods are always simpler than nonrecursive methods.

iv. There is always a selection statement in a recursive method to check whether a base case is reached.

A. i,ii,iii,iv

B. i,ii,iii

C. i,ii,iv

D. i,iv

Ans. C