



PROGRAMMING IN JAVA

Assignment 7

TYPE OF QUESTION: MCQ

Number of questions: 10

Total mark: $10 \times 1 = 10$

QUESTION 1:

Which of the following interface is **NOT** a member of `java.io` package?

- a. `DataInput`
- b. `ObjectInput`
- c. `Runnable`
- d. `FileFilter`

Correct Answer: c

Detailed Solution:

`Runnable` is defined in `java.lang` package, and the other interfaces are defined in `java.io` package.

QUESTION 2:

Which of the following streams contains the classes can work on character stream?

- a. `InputStream`
- b. `OutputStream`
- c. `FileReader`
- d. `FileWriter`

Correct Answer: c, d

Detailed Solution:

Note: `InputStream` and `OutputStream` classes work on byte streams.

QUESTION 3:

Which of the following is **NOT** a way to read data from the keyboard?

- a. Using an object of `DataInputStream` class
- b. Using an object of `Scanner` class



- c. Passing the data as command line input
- d. Using an object of FileInputStream class.

Correct Answer: d

Detailed Solution:

Note: Command line input provides data to the running program from the keyboard only.

QUESTION 4:

Which of the following classes can be used to implement the input stream that uses a character array as the source?

- a. BufferedReader
- b. FileReader
- c. CharArrayReader
- d. FileArrayReader

Correct Answer: c

Detailed Solution:

Note: FileArrayReader creates a stream to read an array from a file, whereas CharArrayReader class read an array of characters in memory (main memory).

QUESTION 5:

Which of the following methods help in clearing the contents of the buffer:

- a. flush()
- b. clear()
- c. close()
- d. exit()

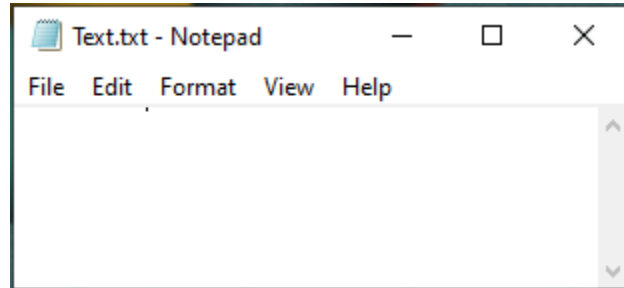
Correct Answer: a

Detailed Solution:

Note: Clear() and exit() are not any valid methods defined in any class in java.io package. The close() method closed a stream.

QUESTION 6:

Assume that “Text.txt” file is already created in the root directory, which is shown below.



Consider the following program and choose the correct option.

```
import java.io.*;

public class Question6{
    public static void main(String[] args) {
        try ( RandomAccessFile rf =
            new RandomAccessFile("Text.txt", "r"); ) {
            int i = rf.readInt();
        }
        catch (FileNotFoundException ex) {
            System.out.println("File not found");
        }
        catch (IOException ex) {
            ex.printStackTrace();
        }
    }
}
```

- a. The program will not be compiled successfully.
- b. The program will be compiled successfully, but will encounter runtime exception
- c. The program produces an output “File not found”.
- d. The program will be executed successfully, but doesn’t produce any output.

Correct Answer: b

Detailed Solution:

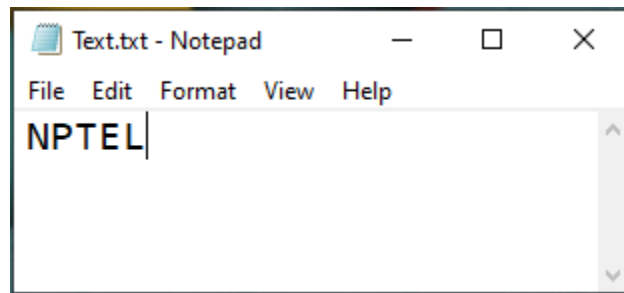
It will compile fine, but raises a run time exception on invoking readInt() because nothing is in the file.

QUESTION 7:

```
import java.io.*;

public class Question7{
    public static void main(String[] args) {
        try{
            InputStream file = new FileInputStream("./Text.txt");
            System.out.print(file.available());
        }
        catch(Exception e){
            System.out.print(e);
        }
    }
}
```

The file **./Text.txt** when opened with the Notepad text editor, it shows the content as shown below.



Which of the following is the correct output for the 'try' portion of the code?

- a. Prints the number of bytes in the file.
- b. Prints the number of characters in the file.
- c. Prints 'true', if the file is present; else prints 'false'.
- d. Prints nothing, as an exception will be caught.

Correct Answer: a

Detailed Solution: Returns an estimate of the number of remaining bytes that can be read (or skipped over) from this input stream without blocking by the next invocation of a method for this input stream. The next invocation might be the same thread or another thread. A single read or skip of this many bytes will not block, but may read or skip fewer bytes.

QUESTION 8:

Which of the following code is correct?



- a.
`FileWriter fileWriter = new FileWriter("../file.txt");
File file = new File(fileWriter);
BufferedWriter bufferedOutputWriter = new BufferedWriter(fileWriter);`
- b.
`BufferedWriter bufferedOutputWriter = new
BufferedWriter("../file.txt");
File file = new File(bufferedOutputWriter);
FileWriter fileWriter = new FileWriter(file);`
- c.
`File file = new File("../file.txt");
FileWriter fileWriter = new FileWriter(file);
BufferedWriter bufferedOutputWriter = new BufferedWriter(fileWriter);`
- d.
`File file = new File("../file.txt");
BufferedWriter bufferedOutputWriter = new BufferedWriter(file);
FileWriter fileWriter = new FileWriter(bufferedOutputWriter);`

Correct Answer: c

Detailed Solution:

The correct procedure would be to create a File object first, then create a FileWriter object with File object and finally create a stream object for writing in to the File object.

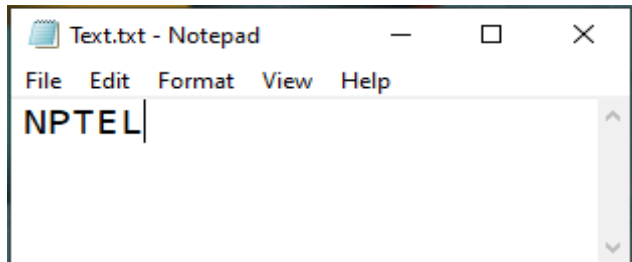
QUESTION 9:

Consider the following program:

```
import java.io.*;  
public class Question9{  
    public static void main(String[] args) throws IOException {  
        BufferedReader br=new BufferedReader(new  
            FileReader("../Text.txt"));  
  
        String str;  
        int c = 0;  
        while((str = br.readLine()) != null) {  
            c=c+1;  
            System.out.println(str.charAt(3));  
        }  
        System.out.println(c);  
    }  
}
```



The file “**Text.txt**” when browse with the Notepad text editor, it shows the content, which is shown below.



If the program is executed, then what will be the output from the execution?

- a. E
1
- b. E
5
- c. N
1
- d. L
5

Correct Answer: a

Detailed Solution:

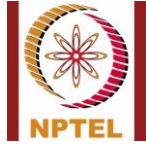
It will print the 4th character of NPTEL that is E.

QUESTION 10:

Which of the following statement is NOT true for RandomAccessFile object?

- a. It can allow to open a file both in read and write mode.
- b. It can allow to store the data fields of any object and then reading the same.
- c. The seek(0) method of the object place the file pointer at the beginning of the file.
- d. Creating a RandomAccessFile instance with a constructor will not throw an exception if the file does not exist.

Correct Answer: d



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Detailed Solution:

The RandomAccessFile is related to secondary storage only. Creating a RandomAccessFile instance with a constructor will throw an exception if the file does not exist.

*****END*****