Java MCQ on I/O & Applets

1 – Input & Output Basics

1. What does AWT stands for?

a) All Window Tools

b) All Writing Tools

c) Abstract Window Toolkit

d) Abstract Writing Toolkit

Answer: c

Explanation: AWT stands for Abstract Window Toolkit, it is used by applets to interact with the user.

2. Which of these is used to perform all input & output operations in Java?

a) streams

b) Variables

c) classes

d) Methods

Answer: a

Explanation: Like in any other language, streams are used for input and output operations.

3. Which of these is a type of stream in Java?

a) Integer stream

b) Short stream

c) Byte stream

d) Long stream

Answer: c

Explanation: Java defines only two types of streams – Byte stream and character stream.

4. Which of these classes are used by Byte streams for input and output operation?

a) InputStream

b) InputOutputStream

c) Reader

d) All of the mentioned

Answer: a

Explanation: Byte stream uses InputStream and OutputStream classes for input and output operation.

5. Which of these classes are used by character streams for input and output operations?

a) InputStream

b) Writer

c) ReadStream

d) InputOutputStream

Answer: b

Explanation: Character streams uses Writer and Reader classes for input & output operations.

6. Which of these class is used to read from byte array?

a) InputStream

b) BufferedInputStream

c) ArrayInputStream

d) ByteArrayInputStream

Answer: d

Explanation: None.

7. What will be the output of the following Java program if input given is ‘abcqfghqbcd’?

class Input\_Output

{

public static void main(String args[]) throws IOException

{

char c;

BufferedReader obj = new BufferedReader(new InputStreamReader(System.in));

do

{

c = (char) obj.read();

System.out.print(c);

} while(c != 'q');

}

}

a) abcqfgh

b) abc

c) abcq

d) abcqfghq

Answer: c

Explanation: None.

8. What will be the output of the following Java program if input given is “abc’def/’egh”?

class Input\_Output

{

public static void main(String args[]) throws IOException

{

char c;

BufferedReader obj = new BufferedReader(new InputStreamReader(System.in));

do

{

c = (char) obj.read();

System.out.print(c);

} while(c!='\'');

}

}

a) abc’

b) abcdef/’

c) abc’def/’egh

d) abcqfghq

Answer: a

Explanation: \’ is used for single quotes that is for representing ‘ .

9. What will be the output of the following Java program?

class output

{

public static void main(String args[])

{

StringBuffer c = new StringBuffer("Hello");

System.out.println(c.length());

}

}

a) 4

b) 5

c) 6

d) 7

Answer: b

Explanation: length() method is used to obtain length of StringBuffer object, length of “Hello” is 5.

2 – Reading Console Input

1. Which exception is thrown by read() method?

a) IOException

b) InterruptedException

c) SystemException

d) SystemInputException

Answer: a

Explanation: read method throws IOException.

2. Which of these is used to read a string from the input stream?

a) get()

b) getLine()

c) read()

d) readLine()

Answer: c

Explanation: None.

3. Which of these class is used to read characters and strings in Java from console?

a) BufferedReader

b) StringReader

c) BufferedStreamReader

d) InputStreamReader

Answer: a

Explanation: None.

4. Which of these class is implemented by FilterInputStream class?

a) InputStream

b) InputOutputStream

c) BufferedInputStream

d) SequenceInputStream

Answer: a

Explanation: FileInputStream implements InputStream.

5. What will be the output of the following Java program if input given is “Hello stop World”?

class Input\_Output

{

public static void main(String args[]) throws IOException

{

string str;

BufferedReader obj = new BufferedReader(new InputStreamReader(System.in));

do

{

str = (char) obj.readLine();

System.out.print(str);

} while(!str.equals("strong"));

}

}

a) Hello

b) Hello stop

c) World

d) Hello stop World

Explanation: “stop” will be able to terminate the do-while loop only when it occurs singly in a line. “Hello stop World” does not terminate the loop.

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

class output

{

public static void main(String args[])

{

StringBuffer c = new StringBuffer("Hello");

StringBuffer c1 = new StringBuffer(" World");

c.append(c1);

System.out.println(c);

}

}

a) Hello

b) World

c) Helloworld

d) Hello World

Answer: d

Explanation: append() method of class StringBuffer is used to concatenate the string representation to the end of invoking string.

7. What will be the output of the following Java program?

class output

{

public static void main(String args[])

{

StringBuffer s1 = new StringBuffer("Hello");

s1.setCharAt(1,x);

System.out.println(s1);

}

}

a) xello

b) xxxxx

c) Hxllo

d) Hexlo

View Answer

Answer: c

Explanation: None.

8. What will be the output of the following Java program if input given is “abc’def/’egh”?

class Input\_Output

{

public static void main(String args[]) throws IOException

{

char c;

BufferedReader obj = new BufferedReader(new InputStreamReader(System.in));

do

{

c = (char) obj.read();

System.out.print(c);

} while(c != '\'');

}

}

a) abc’

b) abcdef/’

c) abc’def/’egh

d) abcqfghq

View Answer

Answer: a

Explanation: \’ is used for single quotes that is for representing ‘ .

Skip to content

Sanfoundry

Menu

3 – Writing Console Output

1. Which of these class contains the methods print() & println()?

a) System

b) System.out

c) BUfferedOutputStream

d) PrintStream

Answer: d

Explanation: print() and println() are defined under the class PrintStream, System.out is the byte stream used by these methods .

2. Which of these methods can be used to writing console output?

a) print()

b) println()

c) write()

d) all of the mentioned

Answer: d

Explanation: None.

3. Which of these classes are used by character streams output operations?

a) InputStream

b) Writer

c) ReadStream

d) InputOutputStream

Answer: b

Explanation: Character streams uses Writer and Reader classes for input & output operations.

4. Which of these class is used to read from a file?

a) InputStream

b) BufferedInputStream

c) FileInputStream

d) BufferedFileInputStream

Answer: c

Explanation: None.

5. What will be the output of the following Java program?

class output

{

public static void main(String args[])

{

String a="hello i love java";

System.out.println(indexof('i')+" "+indexof('o')+" "+lastIndexof('i')+" "+lastIndexof('o') ));

}

}

a) 6 4 6 9

b) 5 4 5 9

c) 7 8 8 9

d) 4 3 6 9

Answer: a

Explanation: indexof(‘c’) and lastIndexof(‘c’) are pre defined function which are used to get the index of first and last occurrence of

the character pointed by c in the given array.

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

class output

{

public static void main(String args[])

{

char c[]={'a','1','b',' ','A','0'];

for (int i = 0; i < 5; ++i)

{

if(Character.isDigit(c[i]))

System.out.println(c[i]" is a digit");

if(Character.isWhitespace(c[i]))

System.out.println(c[i]" is a Whitespace character");

if(Character.isUpperCase(c[i]))

System.out.println(c[i]" is an Upper case Letter");

if(Character.isUpperCase(c[i]))

System.out.println(c[i]" is a lower case Letter");

i = i + 3;

}

}

}

a)

a is a lower case Letter

is White space character

b)

b is a lower case Letter

is White space characte

c)

a is a lower case Letter

A is a upper case Letter

d)

a is a lower case Letter

0 is a digit

View Answer

Answer: a

Explanation: Character.isDigit(c[i]),Character.isUpperCase(c[i]),Character.isWhitespace(c[i]) are the function of library java.lang

they are used to find weather the given character is of specified type or not. They return true or false i:e Boolean variable.

7. What will be the output of the following Java program?

class output

{

public static void main(String args[])

{

StringBuffer s1 = new StringBuffer("Hello");

StringBuffer s2 = s1.reverse();

System.out.println(s2);

}

}

a) Hello

b) olleH

c) HelloolleH

d) olleHHello

Answer: b

Explanation: reverse() method reverses all characters. It returns the reversed object on which it was called.

4 – Reading & Writing Files

1. Which of these class contains the methods used to write in a file?

a) FileStream

b) FileInputStream

c) BUfferedOutputStream

d) FileBufferStream

Answer: b

Explanation: None.

2. Which of these exception is thrown in cases when the file specified for writing is not found?

a) IOException

b) FileException

c) FileNotFoundException

d) FileInputException

Answer: c

Explanation: In cases when the file specified is not found, then FileNotFoundException is thrown by java run-time system, earlier versions of java used to throw IOException but after Java 2.0 they throw FileNotFoundException.

3. Which of these methods are used to read in from file?

a) get()

b) read()

c) scan()

d) readFileInput()

Answer: b

Explanation: Each time read() is called, it reads a single byte from the file and returns the byte as an integer value. read() returns -1 when the end of the file is encountered.

4. Which of these values is returned by read() method is end of file (EOF) is encountered?

a) 0

b) 1

c) -1

d) Null

Answer: c

Explanation: Each time read() is called, it reads a single byte from the file and returns the byte as an integer value. read() returns -1 when the end of the file is encountered.

5. Which of these exception is thrown by close() and read() methods?

a) IOException

b) FileException

c) FileNotFoundException

d) FileInputOutputException

Answer: a

Explanation: Both close() and read() method throw IOException.

6. Which of these methods is used to write() into a file?

a) put()

b) putFile()

c) write()

d) writeFile()

Answer: c

Explanation: None.

7. What will be the output of the following Java program?

import java.io.\*;

class filesinputoutput

{

public static void main(String args[])

{

InputStream obj = new FileInputStream("inputoutput.java");

System.out.print(obj.available());

}

}

Note: inputoutput.java is stored in the disk.

a) true

b) false

c) prints number of bytes in file

d) prints number of characters in the file

Answer: c

Explanation: obj.available() returns the number of bytes.

8. What will be the output of the following Java program?

import java.io.\*;

public class filesinputoutput

{

public static void main(String[] args)

{

String obj = "abc";

byte b[] = obj.getBytes();

ByteArrayInputStream obj1 = new ByteArrayInputStream(b);

for (int i = 0; i < 2; ++ i)

{

int c;

while((c = obj1.read()) != -1)

{

if(i == 0)

{

System.out.print(Character.toUpperCase((char)c));

obj2.write(1);

}

}

System.out.print(obj2);

}

}

}

a) AaBaCa

b) ABCaaa

c) AaaBaaCaa

d) AaBaaCaaa

View Answer

Answer: d

Explanation: None.

9. What will be the output of the following Java program?

import java.io.\*;

class Chararrayinput

{

public static void main(String[] args)

{

String obj = "abcdef";

int length = obj.length();

char c[] = new char[length];

obj.getChars(0, length, c, 0);

CharArrayReader input1 = new CharArrayReader(c);

CharArrayReader input2 = new CharArrayReader(c, 0, 3);

int i;

try

{

while((i = input2.read()) != -1)

{

System.out.print((char)i);

}

}

catch (IOException e)

{

e.printStackTrace();

}

}

}

a) abc

b) abcd

c) abcde

d) abcdef

Answer: a

Explanation: None.

10. What will be the output of the following Java program?

import java.io.\*;

class Chararrayinput

{

public static void main(String[] args)

{

String obj = "abcdefgh";

int length = obj.length();

char c[] = new char[length];

obj.getChars(0, length, c, 0);

CharArrayReader input1 = new CharArrayReader(c);

CharArrayReader input2 = new CharArrayReader(c, 1, 4);

int i;

int j;

try

{

while((i = input1.read()) == (j = input2.read()))

{

System.out.print((char)i);

}

}

catch (IOException e)

{

e.printStackTrace();

}

}

}

a) abc

b) abcd

c) abcde

d) none of the mentioned

Answer: d

Explanation: No output is printed. CharArrayReader object input1 contains string “abcdefgh” whereas object input2 contains string “bcde”, when while((i=input1.read())==(j=input2.read())) is executed the starting character of each object is compared since they are unequal control comes out of loop and nothing is printed on the screen.

5 – Applets

1. Which of these functions is called to display the output of an applet?

a) display()

b) paint()

c) displayApplet()

d) PrintApplet()

Answer: b

Explanation: Whenever the applet requires to redraw its output, it is done by using method paint().

2. Which of these methods can be used to output a string in an applet?

a) display()

b) print()

c) drawString()

d) transient()

Answer: c

Explanation: drawString() method is defined in Graphics class, it is used to output a string in an applet.

3. Which of these methods is a part of Abstract Window Toolkit (AWT) ?

a) display()

b) paint()

c) drawString()

d) transient()

Answer: b

Explanation: paint() is an abstract method defined in AWT.

4. Which of these modifiers can be used for a variable so that it can be accessed from any thread or parts of a program?

a) transient

b) volatile

c) global

d) No modifier is needed

Answer: b

Explanation: The volatile modifier tells the compiler that the variable modified by volatile can be changed unexpectedly by other part of the program. Specially used in situations involving multithreading.

5. Which of these operators can be used to get run time information about an object?

a) getInfo

b) Info

c) instanceof

d) getinfoof

Answer: c

Explanation: None.

6. What is the Message is displayed in the applet made by the following Java program?

import java.awt.\*;

import java.applet.\*;

public class myapplet extends Applet

{

public void paint(Graphics g)

{

g.drawString("A Simple Applet", 20, 20);

}

}

a) A Simple Applet

b) A Simple Applet 20 20

c) Compilation Error

d) Runtime Error

Answer: a

Explanation: None.

7. What is the length of the application box made by the following Java program?

import java.awt.\*;

import java.applet.\*;

public class myapplet extends Applet

{

public void paint(Graphics g)

{

g.drawString("A Simple Applet", 20, 20);

}

}

a) 20

b) 50

c) 100

d) System dependent

Answer: a

Explanation: the code in pain() method – g.drawString(“A Simple Applet”,20,20); draws a applet box of length 20 and width 20.

8. What is the length of the application box made the following Java program?

import java.awt.\*;

import java.applet.\*;

public class myapplet extends Applet

{

Graphic g;

g.drawString("A Simple Applet", 20, 20);

}

a) 20

b) Default value

c) Compilation Error

d) Runtime Error

Answer: c

Explanation: To implement the method drawString we need first need to define abstract method of AWT that is paint() method. Without paint() method we can not define and use drawString or any Graphic class methods.

9. What will be the output of the following Java program?

import java.io.\*;

class Chararrayinput

{

public static void main(String[] args)

{

String obj = "abcdefgh";

int length = obj.length();

char c[] = new char[length];

obj.getChars(0, length, c, 0);

CharArrayReader input1 = new CharArrayReader(c);

CharArrayReader input2 = new CharArrayReader(c, 1, 4);

int i;

int j;

try

{

while((i = input1.read()) == (j = input2.read()))

{

System.out.print((char)i);

}

}

catch (IOException e)

{

e.printStackTrace();

}

}

}

a) abc

b) abcd

c) abcde

d) none of the mentioned

Answer: d

Explanation: No output is printed. CharArrayReader object input1 contains string “abcdefgh” whereas object input2 contains string “bcde”, when while((i=input1.read())==(j=input2.read())) is executed the starting character of each object is compared since they are unequal control comes out of loop and nothing is printed on the screen.