Core Java

1)Java \_\_\_\_\_\_\_\_\_\_\_ can run from a Web browser.

A. applications

B. applets

C. servlets

D. Micro Edition programs

Answer: B

2) \_\_\_\_\_\_\_\_ is interpreted.

A. Java

B. C++

C. C

D. Ada

E. Pascal

Answer: A

3) \_\_\_\_\_\_\_\_ is a technical definition of the language that includes the syntax and semantics of the Java programming language.

A. Java language specification

B. Java API

C. Java JDK

D. Java IDE

Answer: A

4) \_\_\_\_\_\_\_\_ consists of a set of separate programs for developing and testing Java programs, each of which is invoked from a command line.

A. Java language specification

B. Java API

**C. Java JDK**

D. Java IDE

Answer: C

5) Given Integer.MIN\_VALUE = -2147483648

Integer.MAX\_VALUE = 2147483647

What is the output of following

{

float f4 = Integer.MIN\_VALUE;

float f5 = Integer.MAX\_VALUE;

float f7 = -2147483655f;

System.out.println("Round f4 is " + Math.round(f4));

System.out.println("Round f5 is " + Math.round(f5));

System.out.println("Round f7 is " + Math.round(f7)); }

**A)Round f4 is -2147483648**

**Round f5 is 2147483647**

**Round f7 is -2147483648**

B)Round f4 is -2147483648

Round f5 is 2147483647

Round f7 is -2147483655

Answer: A

6) Analyze the following statement:

double sum = 0;

for (double d = 0; d < 10;) {

d += 0.1;

sum += sum + d;

}

A. The program has a compile error because the adjustment is missing in the for loop.

B. The program has a compile error because the control variable in the for loop cannot be of the double type.

C. The program runs in an infinite loop because d<10 would always be true.

**D. The program compiles and runs fine.**

Answer: D

7) Analyze the following fragment:

double sum = 0;

double d = 0;

while (d != 10.0) {

d += 0.1;

sum += sum + d;

}

A. The program does not compile because sum and d are declared double, but assigned with integer value 0.

B. The program never stops because d is always 0.1 inside the loop.

**C. The program may not stop because of the phenomenon referred to as numerical inaccuracy for operating with floating-point numbers.**

D. After the loop, sum is 0 + 0.1 + 0.2 + 0.3 + ... + 1.9

Answer: C

8) Which of the following defines a legal abstract class?

A. class Vehicle { abstract void display(); }

B. abstract Vehicle { abstract void display(); }

**C. abstract class Vehicle { abstract void display(); }**

D. class abstract Vehicle { abstract void display(); }

Answer: C

9) Which is true about a method-local inner class?

A. It must be marked final.

**B. It can be marked abstract.**

C. It can be marked public.

D. It can be marked static.

Answer: B

|  |
| --- |
| 10)A class implements an interface but does not override all the methods of interface then \_\_\_\_\_\_ |
| **A. It should be declared as abstract class** |
| B. It should be declared as final class |
| C. It must override all the methods of interface |
| D. none of these |

Answer: A

11) What is the output of running class Test?

public class Test {

public static void main(String[] args) {

new Circle9();

}

}

public abstract class GeometricObject {

protected GeometricObject() {

System.out.print("A");

}

protected GeometricObject(String color, boolean filled) {

System.out.print("B");

}

}

public class Circle9 extends GeometricObject {

/\*\* Default constructor \*/

public Circle9() {

this(1.0);

System.out.print("C");

}

/\*\* Construct circle with a specified radius \*/

public Circle9(double radius) {

this(radius, "white", false);

System.out.print("D");

}

/\*\* Construct a circle with specified radius, filled, and color \*/

public Circle9(double radius, String color, boolean filled) {

super(color, filled);

System.out.print("E");

}

}

A. ABCD

B. BACD

C. CBAE

**D.BEDC**

Answer: D

12) What is displayed on the console when running the following program?

class Test {

public static void main(String[] args) {

try {

System.out.println("Welcome to Java");

int i = 0;

int y = 2 / i;

System.out.println("Welcome to HTML");

}

finally {

System.out.println("The finally clause is executed");

}

}

}

A. Welcome to Java, then an error message.

**B. Welcome to Java followed by The finally clause is executed in the next line, then an error message**.

C. The program displays three lines: Welcome to Java, Welcome to HTML, The finally clause is executed, then an error message.

D. None of the above.

Answer: B

14. \_\_\_\_\_\_ is a superclass of all exception classes.

A. Exception

**B. Throwable**

C. RuntimeException

D. IOException

Answer: B

15) Suppose s is a string with the value "java". What will be assigned to x if you execute the following code?

char x = s.charAt(4);

A. 'a'

B. 'v'

**C. Nothing will be assigned to x, because the execution causes the runtime error StringIndexOutofBoundsException**.

Answer: C

16) What is the output of the following code?

public class Test {

public static void main(String[] args) {

String s1 = new String("Welcome to Java");

String s2 = s1;

s1 += "and Welcome to HTML";

if (s1 == s2)

System.out.println("s1 and s2 reference to the same String object");

else

System.out.println("s1 and s2 reference to different String objects");

}

}

A. s1 and s2 reference to the same String object

**B. s1 and s2 reference to different String objects**

Answer: B

17) What is the printout of the following code?

public class Test {

public static void main(String[] args) {

int[][][] data = {{{1, 2}, {3, 4}},

{{5, 6}, {7, 8}}};

System.out.print(ttt(data[0]));

}

public static int ttt(int[][] m) {

int v = m[0][0];

for (int i = 0; i < m.length; i++)

for (int j = 0; j < m[i].length; j++)

if (v < m[i][j])

v = m[i][j];

return v;

}

}

A. 1

B. 2

**C. 4**

D. 5

Answer: C

18) ) The \_\_\_\_\_\_\_class contains methods to store any number and any type of objects in a single unit called vectors

A. Array

**B. Vector**

C. String

D. Wrapper

Answer: B

19) What is the output for the following code?

import java.util.\*;

public class Test {

public static void main(String[] args) {

Set<A> set = new HashSet<A>();

set.add(new A());

set.add(new A());

set.add(new A());

set.add(new A());

System.out.println(set);

}

}

class A {

int r = 1;

public String toString() {

return r + "";

}

public boolean equals(Object o) {

return this.r == ((A)o).r;

}

public int hashCode() {

return r;

}

}

**A. [1]**

B. [1, 1]

C. [1, 1, 1]

D. [1, 1, 1, 1]

Answer: A

20)To get an iterator from a set, you may use the \_\_\_\_\_\_\_\_\_\_ method.

A. getIterator

B. findIterator

**C. iterator**

D. iterators

Answer: C

21)Analyze the following code.

import java.util.\*;

public class Test {

public static void main(String[] args) throws Exception {

TreeSet<String> set = new TreeSet<String>();

set.add("Red");

set.add("Green");

set.add("Blue");

System.out.println(set.last());

}

}

**A. The program displays Red**

B. The program displays Blue

C. The program displays Green

D. The program may display Red, Blue, or Green.

Answer: A

22)The methods for modifying element in the \_\_\_\_\_\_\_\_\_\_\_ class are synchronized.

A. ArrayList

B. LinkedList

C. TreeMap

**D. Vector**

E. HashSet

Answer: D

23) Analyze the following code.

// Test.java: Define threads using the Thread class

import java.util.\*;

public class Test {

private Stack stack = new Stack();

private int i = 0;

/\*\* Main method \*/

public static void main(String[] args) {

new Test();

}

public Test() {

// Start threads

new Producer().start();

new Consumer().start();

}

class Producer extends Thread {

public void run() {

while (true) {

System.out.println("Producer: put " + i);

stack.push(new Integer(i++));

synchronized (stack) {

notifyAll();

}

}

}

}

class Consumer extends Thread {

public void run() {

while (true) {

synchronized (stack) {

try {

while (stack.isEmpty())

stack.wait();

System.out.println("Consumer: get " + stack.pop());

}

catch (InterruptedException ex) {

ex.printStackTrace();

}

}

}

}

}

}

A. The program creates two threads: one to add data to the stack and the other to get data from the stack.

B. The program has a compilation error on the notifyAll() method in the Producer class because it is not invoked from the stack object.

**C. The program will throw an exception because the notifyAll() method in the Producer class is not invoked from the stack object.**

D. The program has a logic error because the lock obtained by the synchronized block for notifyAll in the Producer class is stack and it should be this (i.e., synchronized (this) { notifyAll(); }).

Answer: C

24) The isAlive() method is used to…….

**A. Know whether a thread is running or not**

B. Know whether a thread was created or not

C. Create a thead after stopping it.

D. Resume a thread after blocking it.

Answer: A

25) To set default priority of a thread which constant can be used?

A. DEF\_PRIORITY

B. DEFAULAT\_PRIORITY

**C. NORM\_PRIORITY**

D. NORMAL\_PRIORITY

Answer: C

26) Which cannot directly cause a thread to stop executing?

A. Calling the SetPriority() method on a Thread object.

B. Calling the wait() method on an object.

**C. Calling notify() method on an object**.

D. Calling read() method on an InputStream object.

Answer: C

27) Character Stream Classes support input/output operations on \_\_\_\_\_\_\_ characters:

A. 8 bit Unicode

**B . 16 bit Unicode**

C . 32 bit Unicode

D . 64 bit Unicode

Answer: B

28)Which class do you use to read data from a text file?

A. File

B. PrintWriter

**C. Scanner**

D. System

Answer: C

29) Which component cannot be added to a container?

A. JPanel

B. JButton

**C. JFrame**

D. JComponent

Answer: C

30) Analyze the following code.

import java.awt.\*;

import javax.swing.\*;

public class Test {

public static void main(String[] args) {

Component c = new JButton("OK");

JFrame frame = new JFrame("My Frame");

frame.add(c);

frame.setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

frame.setVisible(true);

}

}

A. You cannot assign a JButton to a variable of java.awt.Component.

B. You can only add c to a container because c's type is Component.

**C. You cannot add a Swing component directly to a JFrame using add(c) prior to JDK 1.4, but it is OK in JDK 1.5.**

D. You cannot create a JFrame using new JFrame("My Frame").

Answer: C

31) What should you use to position a Button within an application Frame so that the size of the Button is NOT affected by the Frame size?

**A. a FlowLayout**

B. a GridLayout

C. the center area of a BorderLayout

D. the East or West area of a BorderLayout

E. the North or South area of a BorderLayout

Answer: A

32) The method \_\_\_\_\_\_\_\_\_\_ sets the font (Helvetica, 20-point bold) in component C.

A. c.setFont(new Font("Helvetica", Font.bold, 20))

B. c.setFont(new Font("helvetica", BOLD, 20))

C. c.setFont(Font("Helvetica", Font.BOLD, 20))

**D. c.setFont(new Font("Helvetica", Font.BOLD, 20))**

Answer: D

33) To show the JTree root handles, invoke \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**A. setShowsRootHandles(true)**

B. setRootHandles(true)

C. setShowsRootHandles(false)

D. setRootHandles(false)

Answer: A

34) Which method can be used to draw a rectangle in the a Applet?

A.drawRect()

B.drawPolygon()

C.drawLine()

**D.all of these**

Answer: D

35) To display text on the applet……..method is used.

A.showString()

**B.drawString()**

C.println()

D.printString()

Answer: B

36) The specific mechanisms and details of the operation of a socket is defined by \_\_\_\_\_\_\_\_\_\_\_.

A. the specific programming language in which the socket is implemented

**B. the host operating system in which the socket is instantiated**

C. the Internet standards committees that define transport layer services

D. the client-side application that creates the socket

Answer: B

37) The two parameters that must be specified in order to instantiate a Java “Socket” are \_\_\_\_\_\_.

**A. a destination host id and a destination port number**

B. source and a destination port numbers

C. source and destination IP addresses

D. the destination IP address and the destination socket id number

Answer: A

38)\_\_\_\_\_\_\_ is a subinterface of java.rmi.Remote that defines the methods for the server object.

A. Server object interface

B. Server implementation

C. RMI Registry

D. Server stub

Answer: A

39) \_\_\_\_\_\_\_\_\_\_\_\_is a class that implements the remote object interface.

A. Server object interface

B. Server implementation

C. RMI Registry

D. Server stub

E. Server Skeleton

Answer: B

40) To obtain an ObjectOutputStream from a socket, use \_\_\_\_\_\_\_\_.

A. socket.getOutputStream()

B. socket.getObjectStream()

C. socket.getObjectOutputStream()

D. new ObjectOutputStream(socket.getOutputStream())

Answer: D