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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  | | --- | | [[http://www.javaprepare.com/home.gif](http://www.javaprepare.com/index.html)](http://www.javaprepare.com/index.html) [FAQ](http://www.javaprepare.com/faq.html) [Java Tutorial](http://www.javaprepare.com/notes/intro.html) [Questions by Topic](http://www.javaprepare.com/quests/question.html) [Mock exam 1](http://www.javaprepare.com/quests/test.html) [Mock exam 2](http://www.javaprepare.com/quests/test2.html) [Whizlabs](http://www.whizlabs.com/) [Online Java Training](http://www.oreillyschool.com/?77608) [Other Certification sites](http://www.javaprepare.com/links.html) [Certification Tips](http://www.javaprepare.com/tips.html) [Exam Objectives](http://www.javaprepare.com/obj.html) [About Java Prepare](http://www.javaprepare.com/about.html) | | Books | | [Certification Books](http://www.javaprepare.com/books/books.html) [SCEA Books](http://www.javaprepare.com/books/arcbooks.html) [Online Books](http://www.javaprepare.com/books/onlinebooks.html) | | Tutorial Topics | | [Language Fundamentals](http://www.javaprepare.com/notes/funda.html) | | [Operator and Assignments](http://www.javaprepare.com/notes/operator.html) | | [Declaration and Access Control](http://www.javaprepare.com/notes/declare.html) | | [Classes in Java](http://www.javaprepare.com/notes/classes.html) | | [Threads](http://www.javaprepare.com/notes/threads.html) | | [Files](http://www.javaprepare.com/notes/files.html) | | Advertisements | |  | |  | [http://www.javaprepare.com/SCJP6-OCPJP-6.jpg](http://www.whizlabs.com/scjp/training.html)   |  | | --- | |  |   [home](http://www.javaprepare.com/index.html) | [tutorial](http://www.javaprepare.com/notes/intro.html) | [questions](http://www.javaprepare.com/quests/question.html) | [test 1](http://www.javaprepare.com/quests/test.html)  **Mock exam 1 for SCJP 6**  The sample test is modeled on the Sun Certification for JavaTM 6 Programmer exam. The test has 50 questions and needs to be executed in 2 hours. The real exam may be a little tougher than this. You need to score 35 correct answers out of 60 to clear the real exam in 180 minutes. Please let us know at ngabrani At hotmail dot com if you find any issues with the test. The site also offers [another mock exam](http://www.javaprepare.com/quests/test2.html)and [questions by topic](http://www.javaprepare.com/quests/question.html).   1. Which declaration of the main method below would allow a class to be started as a standalone program. Select the one correct answer.    1. public static int main(char args[])    2. public static void main(String args[])    3. public static void MAIN(String args[])    4. public static void main(String args)    5. public static void main(char args[]) 2. What all gets printed when the following code is compiled and run? Select the three correct answers.   public class xyz {  public static void main(String args[]) {  for(int i = 0; i < 2; i++) {  for(int j = 2; j>= 0; j--) {  if(i == j) break;  System.out.println("i=" + i + " j="+j);  }  }  }  }   * 1. i=0 j=0   2. i=0 j=1   3. i=0 j=2   4. i=1 j=0   5. i=1 j=1   6. i=1 j=2   7. i=2 j=0   8. i=2 j=1   9. i=2 j=2  1. What gets printed when the following code is compiled and run with the following command -  java test 2  Select the one correct answer.   public class test {  public static void main(String args[]) {  Integer intObj=Integer.valueOf(args[args.length-1]);  int i = intObj.intValue();  if(args.length > 1)  System.out.println(i);  if(args.length > 0)  System.out.println(i - 1);  else  System.out.println(i - 2);  }  }     * 1. test   2. test -1   3. 0   4. 1   5. 2  1. In Java technology what expression can be used to represent number of elements in an array named arr ? 2. How would the number 5 be represented in hex using up-to four characters. 3. Which of the following is a Java keyword. Select the four correct answers.    1. extern    2. synchronized    3. volatile    4. friend    5. friendly    6. transient    7. this    8. then 4. Is the following statement true or false. The constructor of a class must not have a return type.    1. true    2. false 5. What is the number of bytes used by Java primitive long. Select the one correct answer.    1. The number of bytes is compiler dependent.    2. 2    3. 4    4. 8    5. 64 6. What is returned when the method substring(2, 4) is invoked on the string "example"? Include the answer in quotes as the result is of type String. 7. Which of the following is correct? Select the two correct answers.    1. The native keyword indicates that the method is implemented in another language like C/C++.    2. The only statements that can appear before an import statement in a Java file are comments.    3. The method definitions inside interfaces are public and abstract. They cannot be private or protected.    4. A class constructor may have public or protected keyword before them, nothing else. 8. What is the result of evaluating the expression 14 ^ 23. Select the one correct answer.    1. 25    2. 37    3. 6    4. 31    5. 17    6. 9    7. 24 9. Which of the following are true. Select the one correct answers.    1. && operator is used for short-circuited logical AND.    2. ~ operator is the bit-wise XOR operator.    3. | operator is used to perform bitwise OR and also short-circuited logical OR.    4. The unsigned right shift operator in Java is >>. 10. Name the access modifier which when used with a method, makes it available to all the classes in the same package and to all the subclasses of the class. 11. Which of the following is true. Select the two correct answers.     1. A class that is abstract may not be instantiated.     2. The final keyword indicates that the body of a method is to be found elsewhere. The code is written in non-Java language, typically in C/C++.     3. A static variable indicates there is only one copy of that variable.     4. A method defined as private indicates that it is accessible to all other classes in the same package. 12. What all gets printed when the following program is compiled and run. Select the two correct answers.   public class test {  public static void main(String args[]) {  int i, j=1;  i = (j>1)?2:1;  switch(i) {  case 0: System.out.println(0); break;  case 1: System.out.println(1);  case 2: System.out.println(2); break;  case 3: System.out.println(3); break;  }  }  }     * 1. 0   2. 1   3. 2   4. 3  1. What all gets printed when the following program is compiled and run. Select the one correct answer.   public class test {  public static void main(String args[]) {  int i=0, j=2;  do {  i=++i;  j--;  } while(j>0);  System.out.println(i);  }  }     * 1. 0   2. 1   3. 2   4. The program does not compile because of statement "i=++i;"  1. What all gets printed when the following gets compiled and run. Select the three correct answers. 2. public class test { 3. public static void main(String args[]) { 4. int i=1, j=1; 5. try { 6. i++; 7. j--; 8. if(i/j > 1) 9. i++; 10. } 11. catch(ArithmeticException e) { 12. System.out.println(0); 13. } 14. catch(ArrayIndexOutOfBoundsException e) { 15. System.out.println(1); 16. } 17. catch(Exception e) { 18. System.out.println(2); 19. } 20. finally { 21. System.out.println(3); 22. } 23. System.out.println(4); 24. } 25. } 26. 1. 0     2. 1     3. 2     4. 3     5. 4 27. What all gets printed when the following gets compiled and run. Select the two correct answers.   public class test {  public static void main(String args[]) {  int i=1, j=1;  try {  i++;  j--;  if(i == j)  i++;  }  catch(ArithmeticException e) {  System.out.println(0);  }  catch(ArrayIndexOutOfBoundsException e) {  System.out.println(1);  }  catch(Exception e) {  System.out.println(2);  }  finally {  System.out.println(3);  }  System.out.println(4);  }  }     * 1. 0   2. 1   3. 2   4. 3   5. 4  1. What all gets printed when the following gets compiled and run. Select the two correct answers.   public class test {  public static void main(String args[]) {  String s1 = "abc";  String s2 = "abc";  if(s1 == s2)  System.out.println(1);  else  System.out.println(2);  if(s1.equals(s2))  System.out.println(3);  else  System.out.println(4);  }  }     * 1. 1   2. 2   3. 3   4. 4  1. What all gets printed when the following gets compiled and run. Select the two correct answers.   public class test {  public static void main(String args[]) {  String s1 = "abc";  String s2 = new String("abc");  if(s1 == s2)  System.out.println(1);  else  System.out.println(2);  if(s1.equals(s2))  System.out.println(3);  else  System.out.println(4);  }  }     * 1. 1   2. 2   3. 3   4. 4  1. Which of the following are legal array declarations. Select the three correct answers.    1. int i[5][];    2. int i[][];    3. int []i[];    4. int i[5][5];    5. int[][] a; 2. What is the range of values that can be specified for an int. Select the one correct answer.    1. The range of values is compiler dependent.    2. -231 to 231 - 1    3. -231-1 to 231    4. -215 to 215 - 1    5. -215-1 to 215 3. How can you ensure that the memory allocated by an object is freed. Select the one correct answer.    1. By invoking the free method on the object.    2. By calling system.gc() method.    3. By setting all references to the object to new values (say null).    4. Garbage collection cannot be forced. The programmer cannot force the JVM to free the memory used by an object. 4. What gets printed when the following code is compiled and run. Select the one correct answer.   public class test {  public static void main(String args[]) {  int i = 1;  do {  i--;  } while (i > 2);  System.out.println(i);  }  }     * 1. 0   2. 1   3. 2   4. -1  1. Which of these is a legal definition of a method named m assuming it throws IOException, and returns void. Also assume that the method does not take any arguments. Select the one correct answer.    1. void m() throws IOException{}    2. void m() throw IOException{}    3. void m(void) throws IOException{}    4. m() throws IOException{}    5. void m() {} throws IOException 2. Which of the following are legal identifier names in Java. Select the two correct answers.    1. %abcd    2. $abcd    3. 1abcd    4. package    5. \_a\_long\_name 3. At what stage in the following method does the object initially referenced by s becomes available for garbage collection. Select the one correct answer.   void method X() {  String r = new String("abc");  String s = new String("abc");  r = r+1; //1  r = null; //2  s = s + r; //3  } //4     * 1. Before statement labeled 1   2. Before statement labeled 2   3. Before statement labeled 3   4. Before statement labeled 4   5. Never.  1. String s = new String("xyz");  Assuming the above declaration, which of the following statements would compile. Select the one correct answer.    1. s = 2 \* s;    2. int i = s[0];    3. s = s + s;    4. s = s >> 2;    5. None of the above. 2. Which of the following statements related to Garbage Collection are correct. Select the two correct answers.    1. It is possible for a program to free memory at a given time.    2. Garbage Collection feature of Java ensures that the program never runs out of memory.    3. It is possible for a program to make an object available for Garbage Collection.    4. The finalize method of an object is invoked before garbage collection is performed on the object. 3. If a base class has a method defined as  void method() { }  Which of the following are legal prototypes in a derived class of this class. Select the two correct answers.    1. void method() { }    2. int method() { return 0;}    3. void method(int i) { }    4. private void method() { } 4. In which all cases does an exception gets generated. Select the two correct answers.   int i = 0, j = 1;   * 1. if((i == 0) || (j/i == 1))   2. if((i == 0) | (j/i == 1))   3. if((i != 0) && (j/i == 1))   4. if((i != 0) & (j/i == 1))  1. Which of the following statements are true. Select the two correct answers.    1. The wait method defined in the Thread class, can be used to convert a thread from Running state to Waiting state.    2. The wait(), notify(), and notifyAll() methods must be executed in synchronized code.    3. The notify() and notifyAll() methods can be used to signal and move waiting threads to ready-to-run state.    4. The Thread class is an abstract class. 2. Which keyword when applied on a method indicates that only one thread should execute the method at a time. Select the one correct answer.    1. transient    2. volatile    3. synchronized    4. native    5. static    6. final 3. What is the name of the Collection interface used to represent elements in a sequence (in a particular order). Select the one correct answer.    1. Collection    2. Set    3. List    4. Map 4. Which of these classes implement the Collection interface SortedMap. Select the one correct answers.    1. HashMap    2. Hashtable    3. TreeMap    4. HashSet    5. TreeSet    6. Vector 5. Which of the following are true about interfaces. Select the two correct answers.    1. Methods declared in interfaces are implicitly private.    2. Variables declared in interfaces are implicitly public, static, and final.    3. An interface can extend any number of interfaces.    4. The keyword implements indicate that an interface inherits from another. 6. Assume that class A extends class B, which extends class C. Also all the three classes implement the method test(). How can a method in a class A invoke the test() method defined in class C (without creating a new instance of class C). Select the one correct answer.    1. test();    2. super.test();    3. super.super.test();    4. ::test();    5. C.test();    6. It is not possible to invoke test() method defined in C from a method in A. 7. What is the return type of method round(double d) defined in Math class. 8. What gets written on the screen when the following program is compiled and run. Select the one right answer.   public class test {  public static void main(String args[]) {  int i;  float f = 2.3f;  double d = 2.7;  i = ((int)Math.ceil(f)) \* ((int)Math.round(d));    System.out.println(i);  }  }   * 1. 4   2. 5   3. 6   4. 6.1   5. 9  1. Is the following statement true or false. As the toString method is defined in the Object class, System.out.println can be used to print any object.    1. true    2. false 2. Which of these classes defined in java.io and used for file-handling are abstract. Select the two correct answers.    1. InputStream    2. PrintStream    3. Reader    4. FileInputStream    5. FileWriter 3. Name the collection interface used to represent collections that maintain unique elements. 4. What is the result of compiling and running the following program.   public class test {  public static void main(String args[]) {  String str1="abc";  String str2="def";  String str3=str1.concat(str2);  str1.concat(str2);  System.out.println(str1);  }  }   * 1. abc   2. def   3. abcabc   4. abcdef   5. defabc   6. abcdefdef  1. Select the one correct answer. The number of characters in an object of a class String is given by    1. The member variable called size    2. The member variable called length    3. The method size() returns the number of characters.    4. The method length() returns the number of characters. 2. Select the one correct answer. Which method defined in Integer class can be used to convert an Integer object to primitive int type.    1. valueOf    2. intValue    3. getInt    4. getInteger 3. Name the return type of method hashCode() defined in Object class, which is used to get the unique hash value of an Object. 4. Which of the following are correct. Select the one correct answer.    1. An import statement, if defined, must always be the first non-comment statement of the file.    2. private members are accessible to all classes in the same package.    3. An abstract class can be declared as final.    4. Local variables cannot be declared as static. 5. Name the keyword that makes a variable belong to a class, rather than being defined for each instance of the class. Select the one correct answer.    1. static    2. final    3. abstract    4. native    5. volatile    6. transient 6. Which of these are core interfaces in the collection framework. Select the one correct answer.    1. Tree    2. Stack    3. Queue    4. Array    5. LinkedList    6. Map 7. Which of these statements are true. Select the two correct answers.    1. For each try block there must be at least one catch block defined.    2. A try block may be followed by any number of finally blocks.    3. A try block must be followed by at least one finally or catch block.    4. If both catch and finally blocks are defined, catch block must precede the finally block.   **Answers to Sample Test 1**   1. b 2. b, c, f 3. d. Note that the program gets one command line argument - 2. args.length will get set to 1. So the condition if(args.length > 1) will fail, and the second check if(args.length > 0) will return true. 4. arr.length 5. Any of these is correct - 0x5, 0x05, 0X05, 0X5 6. b, c, f, g 7. a 8. d 9. "am" 10. a, c. Please note that b is not correct. A package statement may appear before an import statement. A class constructor may be declared private also. Hence d is incorrect. 11. a 12. a 13. protected 14. a, c 15. b, c 16. c 17. a, d, e 18. d, e 19. a, c 20. b, c 21. b, c, e 22. b 23. d 24. a 25. a 26. b, e . The option c is incorrect because a Java identifier name cannot begin with a digit. 27. d 28. c 29. c, d 30. a, c 31. b, d 32. b, c 33. c 34. c 35. c 36. b, c 37. f 38. long 39. e 40. a 41. a, c 42. Set 43. a 44. d 45. b 46. int 47. d 48. a 49. f 50. c, d   [home](http://www.javaprepare.com/index.html) | [tutorial](http://www.javaprepare.com/notes/intro.html) | [questions](http://www.javaprepare.com/quests/question.html) | [test 1](http://www.javaprepare.com/quests/test.html) |[test 2](http://www.javaprepare.com/quests/test2.html) |

1. Which  
of the following are valid definitions of an application’s main( ) method?  
a) public static void main();  
b) public static void main( String args );  
c) public static void main( String args[] );  
d) public static void main( Graphics g );  
e) public static boolean main( String args[] );  
2. If MyProg.java were compiled as an  
application and then run from the command line as:

java MyProg I like tests

what would be the value of args[ 1 ] inside  
the main( ) method?  
a) MyProg  
b) "I"  
c) "like"  
d) 3  
e) 4  
f) null until a value is assigned  
  
3. Which of the following are Java keywords?  
a) array  
b) boolean  
c) Integer  
d) protect  
e) super  
4. After the declaration:

char[] c = new char[100];

what is the value of c[50]?  
a) 50  
b) 49  
c) ‘\u0000′  
d) ‘\u0020′  
e) " "  
f) cannot be determined  
g) always null until a value is  
assigned  
5. After the declaration:

int x;

the range of x is:  
a) -231 to 231-1  
  
b) -216 to 216 -  
1   
c) -232 to 232   
d) -216 to 216  
e) cannot be determined; it depends on  
the machine  
6. Which identifiers are valid?  
a) \_xpoints  
b) r2d2  
c) bBb$  
d) set-flow  
e) thisisCrazy  
7. Represent the number 6 as a hexadecimal  
literal.  
  
8. Which of the following statements assigns "Hello Java" to the  
String variable s?  
a) String s = "Hello Java";  
b) String s[] = "Hello Java";  
c) new String s = "Hello Java";  
d) String s = new String("Hello Java");  
9. An integer, x has a binary value (using 1  
byte) of 10011100. What is the binary value of z after these statements:

int y = 1 << 7;  
int z = x & y;

a) 1000 0001  
b) 1000 0000  
c) 0000 0001  
d) 1001 1101  
e) 1001 1100  
10. Which statements are accurate:  
a) >>  
performs signed shift while >>> performs an unsigned shift.  
b) >>> performs a  
signed shift while >> performs an unsigned shift.  
c) << performs a  
signed shift while <<< performs an insigned shift.  
d) <<< performs a  
signed shift while << performs an unsigned shift.  
11. The statement …

String s = "Hello" +  
"Java";

yields the same value for s as …

String s = "Hello";  
String s2= "Java";  
s.concat( s2 );

True  
False  
12. If you compile and execute an application  
with the following code in its main() method:

String s = new String( "Computer" );

if( s == "Computer" )

System.out.println( "Equal A" );

if( s.equals( "Computer" ) )

System.out.println( "Equal B" );

a) It will not compile because the  
String class does not support the = = operator.  
b) It will compile and run, but  
nothing is printed.  
c) "Equal A" is the only  
thing that is printed.  
d) "Equal B" is the only  
thing that is printed.  
e) Both "Equal A" and  
"Equal B" are printed.  
13. Consider the two statements:

1. boolean passingScore = false && grade == 70;

2. boolean passingScore = false & grade == 70;

The expression

grade == 70

is evaluated:  
a) in both 1 and 2  
b) in neither 1 nor 2  
c) in 1 but not 2  
d) in 2 but not 1  
e) invalid because false should be  
FALSE  
14. Given the variable declarations below:

byte myByte;  
int myInt;  
long myLong;  
char myChar;  
float myFloat;  
double myDouble;

Which one of the following assignments would  
need an explicit cast?  
a) myInt  
= myByte;  
b) myInt  
= myLong;  
c) myByte  
= 3;  
d) myInt  
= myChar;  
e) myFloat  
= myDouble;  
f) myFloat  
= 3;  
g) myDouble  
= 3.0;  
15. Consider this class example:

class MyPoint

{ void myMethod()

{ int x, y;

x = 5; y = 3;

System.out.print( " ( " + x + ", " + y + " ) " );

switchCoords( x, y );

System.out.print( " ( " + x + ", " + y + " ) " );

}

void switchCoords( int x, int y )

{ int temp;

temp = x;

x = y;

y = temp;

System.out.print( " ( " + x + ", " + y + " ) " );

}

}

What is printed to standard output if myMethod()  
is executed?  
a) (5, 3) (5, 3) (5, 3)  
b) (5, 3) (3, 5) (3, 5)  
c) (5, 3) (3, 5) (5, 3)  
16. To declare an array of 31 floating  
point numbers representing snowfall for each day of March in Gnome, Alaska,  
which declarations would be valid?  
a) double  
snow[] = new double[31];  
b) double  
snow[31] = new array[31];  
c) double  
snow[31] = new array;  
d) double[]  
snow = new double[31];  
17. If arr[] contains only positive integer values, what does this  
function do?

public int guessWhat( int arr[] )

{ int x= 0;

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

x = x < arr[i] ? arr[i] : x;

return x;

}

a) Returns the index of the highest  
element in the array  
b) Returns true/false if there  
are any elements that repeat in the array  
c) Returns how many even numbers are  
in the array  
d) Returns the highest element in the  
array  
e) Returns the number of question  
marks in the array  
18. Consider the code below:

arr[0] = new int[4];  
arr[1] = new int[3];  
arr[2] = new int[2];  
arr[3] = new int[1];  
for( int n = 0; n < 4; n++ )  
System.out.println( /\* what goes here? \*/ );

Which statement below, when inserted as the  
body of the for loop, would print the number of values in each row?  
a) arr[n].length();  
b) arr.size;  
c) arr.size-1;  
d) arr[n][size];  
e) arr[n].length;  
19. If size = 4, triArraylooks like:

int[][] makeArray( int size)

{ int[][] triArray = new int[size] [];

int val=1;

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

{ triArray[i] = new int[i+1];

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

{ triArray[i][j] = val++;

}

}

return triArray;

}

a)   
1 2 3 4  
5 6 7  
8 9  
10

b)   
1 4 9 16

c)   
1 2 3 4

d)   
1 2 3 4  
5 6 7 8  
9 10 11 12  
13 14 15 16

e)   
1  
2 3   
4 5 6   
7 8 9 10

20. Which of the following are legal  
declarations of a two-dimensional array of integers?  
a) int[5][5]a = new int[][];  
b) int a = new int[5,5];   
c) int[]a[] = new int[5][5];  
d) int[][]a = new[5]int[5];  
21. Which of the following are correct methods  
for initializing the array "dayhigh" with 7 values?  
a) int dayhigh = { 24, 23, 24, 25, 25, 23, 21 };  
b) int dayhigh[] = { 24, 23, 24, 25, 25, 23, 21 };  
c) int[] dayhigh = { 24, 23, 24, 25, 25, 23, 21 };  
d) int dayhigh [] = new int[24, 23, 24, 25, 25, 23, 21];  
e) int dayhigh = new[24, 23, 24, 25, 25, 23, 21];  
22. If you want subclasses to access, but not to  
override a superclass member method, what keyword should precede the name of  
the superclass method?  
  
23. If you want a member variable to not be accessible outside the current  
class at all, what keyword should precede the name of the variable when  
declaring it?  
  
24. Consider the code below:

public static void main( String args[] )

{ int a = 5;

System.out.println( cube( a ) );

}

int cube( int theNum )

{

return theNum \* theNum \* theNum;

}

What will happen when you attempt to compile and run this code?  
a) It will not compile because cube is  
already defined in the java.lang.Math class.  
b) It will not compile because cube is  
not static.  
c) It will compile, but throw an  
arithmetic exception.  
d) It will run perfectly and print  
"125" to standard output.  
25. Given the variables defined below:

int one = 1;  
int two = 2;  
char initial = ‘2′;  
boolean flag = true;

Which of the following are valid?  
a) if(  
one ){}  
b) if(  
one = two ){}  
c) if(  
one == two ){}  
d) if(  
flag ){}  
e) switch(  
one ){}  
f) switch(  
flag ){}  
g) switch(  
initial ){}  
26. If val = 1 in the code below:

switch( val )

{ case 1: System.out.print( "P" );

case 2:

case 3: System.out.print( "Q" );

break;

case 4: System.out.print( "R" );

default: System.out.print( "S" );

}

Which values would be printed?  
a) P  
b) Q  
c) R  
d) S  
27. Assume that val has been defined as an int for the  
code below:

if( val > 4 )

{ System.out.println( "Test A" );

}

else if( val > 9 )

{ System.out.println( "Test B" );

}

else System.out.println( "Test C" );

Which values of val will  
result in "Test C" being printed:

a) val < 0   
b) val between 0 and 4   
c) val between 4 and 9   
d) val > 9   
e) val = 0   
f) no values for val will be satisfactory

28. What exception might a wait()  
method throw?  
  
29. For the code:

m = 0;

while( m++ < 2 )

System.out.println( m );

Which of the following are printed to  
standard output?  
a) 0  
b) 1  
c) 2  
d) 3  
e) Nothing and an exception  
is thrown  
30. Consider the code fragment below:

outer: for( int i = 1; i <3; i++ )

{ inner: for( j = 1; j < 3; j++ )

{ if( j==2 )

continue outer;

System.out.println( "i = " +i ", j = " + j );

}

}

Which of the following would be printed to standard output?  
a) i = 1, j = 1  
b) i = 1, j = 2  
c) i = 1, j = 3  
d) i = 2, j = 1  
e) i = 2, j = 2  
f) i = 2, j = 3  
g) i = 3, j = 1  
h) i = 3, j = 2  
31. Consider the code below:

void myMethod()

{ try

{

fragile();

}

catch( NullPointerException npex )

{

System.out.println( "NullPointerException thrown " );

}

catch( Exception ex )

{

System.out.println( "Exception thrown " );

}

finally

{

System.out.println( "Done with exceptions " );

}

System.out.println( "myMethod is done" );

}

What is printed to standard output if fragile()  
throws an IllegalArgumentException?  
a) "NullPointerException thrown"  
b) "Exception thrown"  
c) "Done with exceptions"  
d) "myMethod is done"  
e) Nothing is printed  
32. Consider the following code sample:

class Tree{}

class Pine extends Tree{}

class Oak extends Tree{}

public class Forest

{ public static void main( String[] args )

{ Tree tree = new Pine();

if( tree instanceof Pine )

System.out.println( "Pine" );

if( tree instanceof Tree )

System.out.println( "Tree" );

if( tree instanceof Oak )

System.out.println( "Oak" );

else System.out.println( "Oops" );

}

}

Select all choices that will be printed:  
a) Pine  
b) Tree  
c) Forest  
d) Oops  
e) (nothing printed)  
33. Consider the classes defined below:

import java.io.\*;

class Super

{

int methodOne( int a, long b ) throws IOException

{ // code that performs some calculations

}

float methodTwo( char a, int b )

{ // code that performs other calculations

}

}

public class Sub extends Super

{

}

Which of the following are legal method  
declarations to add to the class Sub? Assume that each method is the only one being added.

a) public static void main( String args[] ){}  
b) float methodTwo(){}  
c) long methodOne( int c, long d ){}  
d) int methodOne( int c, long d ) throws  
ArithmeticException{}  
e) int methodOne( int c, long d ) throws  
FileNotFoundException{}  
34. Assume that Sub1 and Sub2 are both  
subclasses of class Super.  
Given the declarations:  
Super super = new Super();  
Sub1 sub1 = new Sub1();  
Sub2 sub2 = new Sub2();   
Which statement best describes the result of  
attempting to compile and execute the following statement:  
super = sub1;  
a) Compiles and definitely legal at  
runtime  
b) Does not compile  
c) Compiles and may be illegal at  
runtime  
35. For the following code:

class Super

{ int index = 5;

public void printVal()

{ System.out.println( "Super" );

}

}

class Sub extends Super

{ int index = 2;

public void printVal()

{ System.out.println( "Sub" );

}

}

public class Runner

{ public static void main( String argv[] )

{ Super sup = new Sub();

System.out.print( sup.index + "," );

sup.printVal();

}

}

What will be printed to standard output?  
a) The code will not compile.  
b) The code compiles and "5,  
Super" is printed to standard output.  
c) The code compiles and "5,  
Sub" is printed to standard output.  
d) The code compiles and "2,  
Super" is printed to standard output.  
e) The code compiles and "2,  
Sub" is printed to standard output.  
f) The code compiles, but throws an  
exception.  
36. How many objects are eligible for garbage  
collection once execution has reached the line labeled Line A?  
String name;  
String newName = "Nick";  
newName = "Jason";  
name = "Frieda";  
String newestName = name;  
name = null;  
//Line A  
a) 0  
b) 1  
c) 2  
d) 3  
e) 4  
37. Which of the following statements about  
Java’s garbage collection are true?  
a) The garbage  
collector can be invoked explicitly using a Runtime object.  
b) The finalize method is  
always called before an object is garbage collected.  
c) Any class that includes  
a finalize method should invoke its superclass’ finalize method.  
d) Garbage collection  
behavior is very predictable.  
38. What line of code would begin execution of a  
thread named myThread?  
  
39. Which methods are required to implement the interface Runnable.  
a) wait()  
b) run()  
c) stop()  
d) update()  
e) resume()  
40. What class defines the wait() method?  
  
41. For what reasons might a thread stop execution?  
a) A thread with higher priority  
began execution.  
b) The thread’s wait() method was invoked.  
c) The thread invoked its yield() method.  
d) The thread’s pause() method was invoked.  
e) The thread’s sleep() method was invoked.  
42. Which method below can change a String object, s ?  
a) equals( s )  
b) substring(  
s )  
c) concat(  
s )  
d) toUpperCase(  
s )  
e) none of the above will change s  
43. If s1 is declared as:   
String s1 =  
"phenobarbital";  
What will be the value of s2 after  
the following line of code:

String s2 = s1.substring( 3, 5 );

1. a) null  
   b) "eno"  
   c) "enoba"  
   d) "no"

44. What method(s)  
from the java.lang.Math class might method() be if the statement

method( -4.4 )  
== -4;

is true.

a)  
round()  
b) min()  
c) trunc()  
d) abs()  
e) floor()  
f) ceil()

45. Which methods  
does java.lang.Math include for trigonometric computations?

a)  
sin()  
b) cos()  
c) tan()  
d) aSin()  
e) aCos()  
f) aTan()  
g) toDegree()

46. This piece of  
code:

TextArea ta =  
new TextArea( 10, 3 );

Produces (select  
all correct statements):

a)  
a TextArea with 10 rows and up to 3 columns  
b) a TextArea with a  
variable number of columns not less than 10 and 3 rows  
c) a TextArea that may not  
contain more than 30 characters  
d) a TextArea that can be  
edited

47. In the list below, which subclass(es) of Component cannot be directly  
instantiated:

a)  
Panel  
b) Dialog  
c) Container  
d) Frame

48. Of the five Component methods listed below, only one is also a method  
of the class MenuItem. Which one?

a)  
setVisible(  
boolean b )  
b) setEnabled( boolean b )  
c) getSize()  
d) setForeground( Color c )  
e) setBackground( Color c )

49. If a font with  
variable width is used to construct the string text for a column, the  
initial size of the column is:

a)  
determined by the number of characters in the string, multiplied by the  
width of a character in this font  
b) determined by the number of  
characters in the string, multiplied by the average width of a character  
in this font  
c) exclusively determined by the  
number of characters in the string  
d) undetermined

50. Which of the  
following methods from the java.awt.Graphics class would be used to draw the outline of a  
rectangle with a single method call?

a)  
fillRect()  
b)  
drawRect()  
c) fillPolygon()  
d) drawPolygon()  
e) drawLine()  
  
51. The Container methods add( Component comp ) and add( String name, Component comp) will throw an IllegalArgumentException  
if comp is a:  
  
a) button  
b) list  
c) window  
d) textarea  
e) container that contains  
this container  
52. Of the following AWT classes, which one(s) are responsible for implementing the components layout?  
  
a)  
LayoutManager  
b) GridBagLayout  
c) ActionListener  
d) WindowAdapter  
e) FlowLayout

53. A component that should resize vertically but not horizontally should  
be placed in a:

a)  
BorderLayout in the North or South location  
b) FlowLayout as the first  
component  
c) BorderLayout in the  
East or West location  
d) BorderLayout in the  
Center location  
e) GridLayout

54. What type of object is the parameter for all methods of the  
MouseListener interface?



55. Which of the following statements about event handling in JDK 1.1 and  
later are true?

a)  
A class can implement multiple listener interfaces  
b) If a class implements a listener  
interface, it only has to overload the methods it uses  
c) All of the MouseMotionAdapter class  
methods have a void return type.

56. Which of the  
following describe the sequence of method calls that result in a component  
being redrawn?

a)  
invoke paint() directly  
b) invoke update which  
calls paint()  
c) invoke repaint() which invokes update(),  
which in turn invokes paint()  
d) invoke repaint() which invokes paint directly

**57. Which of these is a correct fragment within the  
web-app element of deployment descriptor.**Select the two correct  
answer.

* 1. <error-page>  
     <error-code>404</error-code>  
     <location>/error.jsp</location> </error-page>
  2. <error-page>  
     <exception-type>mypackage.MyException</exception-type>  
     <error-code>404</error-code>  
     <location>/error.jsp</location> </error-page>
  3. <error-page> <exception-type>mypackage.MyException</exception-type>  
     <error-code>404</error-code> </error-page>
  4. <error-page>  
     <exception-type>mypackage.MyException</exception-type>  
     <location>/error.jsp</location> </error-page>

58. **A  
bean with a property color is loaded using the following statement  
<jsp:usebean  
id="fruit" class="Fruit"/>   
Which of the following statements may be used to set the of color  
property of the bean. Select the one correct answer.**

1. <jsp:setColor  
id="fruit" property="color" value="white"/>

2. <jsp:setColor  
name="fruit" property="color" value="white"/>

3.    <jsp:setValue  
name="fruit" property="color" value="white"/>

4.    <jsp:setProperty  
name="fruit" property="color" value="white">

5.    <jsp:setProperty  
name="fruit" property="color" value="white"/>

6.       
<jsp:setProperty id="fruit"  
property="color" value="white">

59. **What gets printed when the following JSP code is  
invoked in a browser. Select the one correct** answer.  
<%=  
if(Math.random() < 0.5){ %>  
  hello  
<%=  
} else { %>  
  hi  
<%=  
} %>

a.        
The browser will print either hello or  
hi based upon the return value of random.

b.       
The string hello will always get  
printed.

c.        
The string hi will always get printed.

d.       
The JSP file will not compile.

60. **Given the following web application deployment descriptor**:

<servlet-class>MyServlet</servlet-class>

...

</servlet>

<servlet-mapping>

<servlet-name>myServlet</servlet-name>

<url-pattern>\*.jsp</url-pattern>

</servlet-mapping>

Which statements are true?

 1) servlet-mapping element should be inside servlet element

 2) url-pattern can’t be defined that way.

 3) if you make the http call: <a  
href="http://host/servlet/Hello.do">http://host/Hello.jsp the servlet container will execute MyServlet.

</a

 4) It would work with any extension excepting jsp,html,htm

61.**Name the class that includes the getSession method that is used to get the HttpSession object**.

* 1. HttpServletRequest
  2. HttpServletResponse
  3. SessionContext
  4. SessionConfig

62. **What will be the result of running the following jsp  
file taking into account that the Web server has just been started and this is  
the first page loaded by the server?**

<html><body>

<%=  
request.getSession(false).getId() %>

</body></html>

1)It won’t  
compile

2)It will  
print the session id.

3)It will produce a NullPointerException as the  
getSession(false) method’s call returns null, cause no session had been  
created.

4)It will  
produce an empty page.

63. **The  
page directive is used to convey information about the page to JSP container.  
Which of these are legal syntax of page directive. Select the two correct  
statement**

* 1. <% page info="test page" %>
  2. <%@ page info="test page"  
     session="false"%>
  3. <%@ page session="true" %>
  4. <%@ page  
     isErrorPage="errorPage.jsp" %>
  5. <%@ page isThreadSafe=true %>

64. **Which  
of the following are methods of the Cookie Class?**

1) setComment

2) getVersion

3) setMaxAge

4) getSecure

8. Which of the following statements assigns “Hello Java” to the  
String variable s?  
a) String s = “Hello Java”;  
b) String s[] = “Hello Java”;  
c) new String s = “Hello Java”;  
d) String s = new String(”Hello Java”)

An

|  |
| --- |
|  |
| **1)** What is the size of a Char? |
| a) 4 bits |
| b) 7 bits |
| c) 8 bits |
| d) 16 bits - correct answer |
|  |
| **2)** A class cannot be declared: |
| a) Static |
| b) Private - correct answer |
| c) Default |
|  |
| **3)** Following code will result in: int a = 3.5; |
| a) Compilation error - correct answer |
| b) Runtime error |
| c) a being 3.5 |
| d) a being 3. |
|  |
| **4)** Following code will result in: int a1 = 5; double a2 = (float)a1; |
| a) Compilation error |
| b) Runtime error |
| c) No errors - correct answer |
|  |
| **5)** Following code will result in: int a = 9/0; |
| a) Compilation error: Divisions must be in a try block. |
| b) Compilation error: DivideByZeroException |
| c) Runtime Exception - correct answer |
| d) No Error: a is NaN |
|  |
| **6)** Following code will result in: float a = 9/0; |
| a) Compilation error: Divisions must be in a try block |
| b) Compilation error: DivideByZeroException |
| c) Runtime Exception - correct answer |
| d) No Error: a is NaN |
|  |
| **7)** A class can be transient |
| a) True |
| b) False - correct answer |
|  |
| **8)** Following code will result in: class A { int b = 1; public static void main(String [] args) { System.out.println("b is " + b); }} |
| a) Compilation error - correct answer |
| b) Runtime Error |
| c) Runtime Exception |
| d) Output of b is 1 |
|  |
| **9)** Following code will result in: class A { public static void main(String [] args) {B b = new A(); }} class B extends A {} |
| a) Compile error - correct answer |
| b) Runtime Exception |
| c) No error |
|  |
| **10)** Following code will result in: class A { public static void main(String [] args) {A a = new B(); }} class B extends A {} |
| a) Compiler error |
| b) Runtime Exception |
| c) No errors - correct answer |
|  |
| **11)** Methods that are marked protected can be called in any subclass of that class. |
| a) True - correct answer |
| b) False |
|  |
| **12)** An abstract class can have non-abstract methods. |
| a) True - correct answer |
| b) False |
|  |
| **13)** Java keywords are written in lowercase as well as uppercase. |
| a) True |
| b) False - correct answer |
|  |
| **14)** What is an instanceof |
| a) A methods in object |
| b) An operator and keyword - correct answer |
|  |
| **15)** Primitive datatypes are allocated on a stack. |
| a) True - correct answer |
| b) False |
|  |
| **16)** Can you compare a boolean to an integer? |
| a) Yes |
| b) No - correct answer |
|  |
| **17)** If class A implements an interface does it need to implement all methods of that interface? |
| a) Yes, always. |
| b) No, not when A is abstract - correct answer |
|  |
| **18)** Integer a = new Integer(2); Integer b = new Integer(2); What happens when you do if (a==b)? |
| a) Compiler error |
| b) Runtime Exception |
| c) True |
| d) False - correct answer |
|  |
| **19)** The methods wait(), notify() and notifyAll() in Object need to be called from synchronized pieces of code. |
| a) True - correct answer |
| b) False |
|  |
| **20)** Inner classes can be defined within methods. |
| a) True - correct answer |
| b) False |
|  |
| **21)** Synchronized is a keyword to tell a Thread to grab an Object lock before continuing execution. |
| a) True - correct answer |
| b) False |
|  |
| **22)** The default statement of a switch is always executed. |
| a) True |
| b) False - correct answer |
|  |
| **23)** How can you prevent a member variable from becoming serialized? |
| a) By marking it private |
| b) By marking it volatile |
| c) By marking it transient - correct answer |
| d) You can not. |

**30 Java Interview Questions**  
  
[ Collected by Prabhu datta Praharaj, cool.prabhu@gmail.com ]  
  
\*Q1. How could Java classes direct program messages to the system console, but error messages, say to a file?   
  
A. The class System has a variable out that represents the standard output, and the variable err that represents the standard error device. By default, they both point at the system console. This how the standard output could be re-directed:  
Stream st = new Stream(new FileOutputStream("output.txt")); System.setErr(st); System.setOut(st);   
  
\*Q2. What's the difference between an interface and an abstract class?   
  
A. An abstract class may contain code in method bodies, which is not allowed in an interface. With abstract classes, you have to inherit your class from it and Java does not allow multiple inheritance. On the other hand, you can implement multiple interfaces in your class.   
  
\*Q3. Why would you use a synchronized block vs. synchronized method?   
  
A. Synchronized blocks place locks for shorter periods than synchronized methods.   
  
\*Q4. Explain the usage of the keyword transient?   
  
A. This keyword indicates that the value of this member variable does not have to be serialized with the object. When the class will be de-serialized, this variable will be initialized with a default value of its data type (i.e. zero for integers).   
  
  
\*Q5. How can you force garbage collection?   
  
A. You can't force GC, but could request it by calling System.gc(). JVM does not guarantee that GC will be started immediately.   
  
\*Q6. How do you know if an explicit object casting is needed?   
  
A. If you assign a superclass object to a variable of a subclass's data type, you need to do explicit casting. For example:   
Object a; Customer b; b = (Customer) a;  
When you assign a subclass to a variable having a supeclass type, the casting is performed automatically.   
  
\*Q7. What's the difference between the methods sleep() and wait()   
  
A. The code sleep(1000); puts thread aside for exactly one second. The code wait(1000), causes a wait of up to one second. A thread could stop waiting earlier if it receives the notify() or notifyAll() call. The method wait() is defined in the class Object and the method sleep() is defined in the class Thread.   
  
\*Q8. Can you write a Java class that could be used both as an applet as well as an application?   
  
A. Yes. Add a main() method to the applet.   
  
\*Q9. What's the difference between constructors and other methods?   
  
A. Constructors must have the same name as the class and can not return a value. They are only called once while regular methods could be called many times.   
  
\*Q10. Can you call one constructor from another if a class has multiple constructors   
  
A. Yes. Use this() syntax.   
  
\*Q11. Explain the usage of Java packages.   
  
A. This is a way to organize files when a project consists of multiple modules. It also helps resolve naming conflicts when different packages have classes with the same names. Packages access level also allows you to protect data from being used by the non-authorized classes.   
  
\*Q12. If a class is located in a package, what do you need to change in the OS environment to be able to use it?   
  
A. You need to add a directory or a jar file that contains the package directories to the CLASSPATH environment variable. Let's say a class Employee belongs to a package com.xyz.hr; and is located in the file c:\dev\com\xyz\hr\Employee.java. In this case, you'd need to add c:\dev to the variable CLASSPATH. If this class contains the method main(), you could test it from a command prompt window as follows:   
c:\>java com.xyz.hr.Employee   
  
\*Q13. What's the difference between J2SDK 1.5 and J2SDK 5.0?   
  
A.There's no difference, Sun Microsystems just re-branded this version.  
  
  
\*Q14. What would you use to compare two String variables - the operator == or the method equals()?   
  
A. I'd use the method equals() to compare the values of the Strings and the == to check if two variables point at the same instance of a String object.  
  
  
\*Q15. Does it matter in what order catch statements for FileNotFoundException and IOExceptipon are written?   
  
A. Yes, it does. The FileNoFoundException is inherited from the IOException. Exception's subclasses have to be caught first.   
  
\*Q16. Can an inner class declared inside of a method access local variables of this method?   
  
A. It's possible if these variables are final.   
  
\*Q17. What can go wrong if you replace && with & in the following code:   
String a=null; if (a!=null && a.length()>10) {...}   
A. A single ampersand here would lead to a NullPointerException.   
  
\*Q18. What's the main difference between a Vector and an ArrayList   
  
A. Java Vector class is internally synchronized and ArrayList is not.   
  
  
\*Q19. When should the method invokeLater()be used?   
  
A. This method is used to ensure that Swing components are updated through the event-dispatching thread.  
  
  
\*Q20. How can a subclass call a method or a constructor defined in a superclass?   
  
A. Use the following syntax: super.myMethod(); To call a constructor of the superclass, just write super(); in the first line of the subclass's constructor  
  
For senior-level developers:  
  
\*\*Q21. What's the difference between a queue and a stack?   
  
A. Stacks works by last-in-first-out rule (LIFO), while queues use the FIFO rule   
  
\*\*Q22. You can create an abstract class that contains only abstract methods. On the other hand, you can create an interface that declares the same methods. So can you use abstract classes instead of interfaces?   
  
A. Sometimes. But your class may be a descendent of another class and in this case the interface is your only option.   
  
\*\*Q23. What comes to mind when you hear about a young generation in Java?   
  
A. Garbage collection.   
  
\*\*Q24. What comes to mind when someone mentions a shallow copy in Java?   
  
A. Object cloning.   
  
\*\*Q25. If you're overriding the method equals() of an object, which other method you might also consider?   
  
A. hashCode()   
  
\*\*Q26. You are planning to do an indexed search in a list of objects. Which of the two Java collections should you use:   
ArrayList or LinkedList?   
  
A. ArrayList   
  
\*\*Q27. How would you make a copy of an entire Java object with its state?   
  
A. Have this class implement Cloneable interface and call its method clone().   
\*\*Q28. How can you minimize the need of garbage collection and make the memory use more effective?   
  
A. Use object pooling and weak object references.   
\*\*Q29. There are two classes: A and B. The class B need to inform a class A when some important event has happened. What Java technique would you use to implement it?   
  
A. If these classes are threads I'd consider notify() or notifyAll(). For regular classes you can use the Observer interface.   
  
\*Q30. What access level do you need to specify in the class declaration to ensure that only classes from the same directory can access it?   
  
A. You do not need to specify any access level, and Java will use a default package access level

QUESTION1

You have the following code in a file called Test.java

class Base{

public static void main(String[] args){

System.out.println("Hello");

}

}

public class Test extends Base{}

What will happen if you try to compile and run this?

1. It will fail to compile.

2. Runtime error

3. Compiles and runs with no output.

4. Compiles and runs printing "Hello"

ANS : 4

This will compile and print "Hello"

The entry point for a standalone java program is

the main method of the class that is being run.

The java runtime system will look for that method

in class Test and find that it does have such a method.

It does not matter whether it is defined in the class itself

or is inherited from a parent class.

QUESTION2

What is the result of trying to compile and run the following code.

public final static void main(String[] args){

double d = 10.0 / -0;

if(d == Double.POSITIVE\_INFINITY)

System.out.println("Positive infinity");

else

System.out.println("Negative infinity");

}

1. output Positive infinity

2. output Negative infinity

3. Will fail to compile

4. Runtime exception

ANS : 1

There is no such thing as a positive or negative zero.

Hence the result is always positive infinity.

QUESTION3

What is the result that will be printed out ?

void aMethod()

{

float f = (1 / 4) \* 10;

int i = Math.round(f);

System.out.println(i);

}

1. 2

2. 0

3. 3

4. 2.5

5. 25

ANS : 2

The result of 1/4 will be zero because integer

divion is carried out on the operands.

If you need to obtain a fractional value

you need to use either a float or double literal

as in 1F / 4F.

QUESTION4

Which of the following are valid declarations?

Note : None of the literals used here

contain the character O they are all zeroes.

1. int i = 0XCAFE;

2. boolean b = 0;

3. char c = 'A';

4. byte b = 128;

5. char c = "A";

ANS : 1,3

1. is correct as it is a valid hexadecimal number.2. is wrong

because you can only assign the values true and false to them

4 is wrong because 128 is beyond the range of a byte. 5is wrong

because "A" is not a char it is a String.

QUESTION5

What is the result of trying to compile and run this program.

public class Test{

public static void main(String[] args){

int[] a = {1};

Test t = new Test();

t.increment(a);

System.out.println(a[a.length - 1]);

}

void increment(int[] i){

i[i.length - 1]++;

}

}

1. Compiler error.

2. Compiles and runs printing out 2

3. Compiles and runs printing out 1

4. An ArrayIndexOutOfBounds Exception at runtime

ANS : 2

You are passing a reference to an array as

the argument to the method. The method may not

modify the passed object reference but it can modify

the object itself.

QUESTION6

What will happen if you try to compile and run this ?

public class Test{

static{

print(10);

}

static void print(int x){

System.out.println(x);

System.exit(0);

}

}

1. Compiler error.

2. Will throw a NoSuchMethod error at runtime.

3. It will compile and run printing out "10"

4. It will run with no output.

5. It will run and print "10" and then crash with an error.

ANS : 3

This will run, print a message and terminate gracefully.

The runtime system needs to load the class before it can look

for the main method. So the static initializer will run first

and print "10". Immediately after that System.exit(0) will be called

terminating the program before an error can be thrown.

QUESTION7

Is this legal?

long longArr[];

int intArr[] = { 7 ,8 , 9};

longArr = intArr;

1. Yes

2. No

ANS : 2

You cannot assign a reference to an array of primitives

to another unless they contain the same primitive types.

QUESTION8

True or False.

The range of a byte is from -127 to 128

1. True

2. False

ANS : 2

Correct answer/s : 2

The statement is false. The range of an array

is from - 128 to 127

QUESTION9

Identify the valid assignments.

1. float f = \u0038;

2. long L2 = 2L;

3. float f = 1.2;

4. char c = '/u004E';

5. byte b = 100;

ANS : 1,2,4,5

1 is correct because \u0038 is unicode for nbr 8.

3 is wrong because 1.2 is a double literal.

4. is a little sneaky perhaps. The

unicode escape character is incorrect

QUESTION10

What is the result of trying to compile and run the following code.

public static void main(String[] args){

double d = 10 / 0;

if(d == Double.POSITIVE\_INFINITY)

System.out.println("Positive infinity");

else

System.out.println("Negative infinity");

}

1. output Positive infinity

2. output Negative infinity

3. Will fail to compile

4. Runtime exception

ANS : 4

Division by zero on integer literals will throw

a runtime error.

### [SCJP Threads](http://www.javaprogrammingworld.com/scjp-threads/)

Tuesday, September 9th, 2008

QUESTION : 1

Any class that implements the Runnable interface

has to provide the implementation for the following methods

public void start();

public void run();

1. True.

2. False.

ANS : 2

QUESTION : 2

True or false ?

A thread that has called the wait() method of an object

still owns the lock of the object.

1. True

2. False

ANS : 2

QUESTION : 3

A number of threads of the same priority have relinquished the lock

on a monitor and are in a waiting state after having called the wait()

method of the object. A new thread enters the monitor and calls the

notifyAll() method of the meonitor. Which of these threads will be the

first one to resume?

1. The thread that has been waiting the longest.

2. The thread that was the last one to to exit the monitor.

3. You can never be sure which thread will get to run first.

4. The the first thread that called the wait() method

ANS : 3

QUESTION : 4

Which of these are valid contructors of a Thread object.

1. public Thread(Object obj)

2. public Thread(String name)

2. public Thread(Runnable trgt)

4. public Thread(ThreadGroup grp, Runnable trgt, String name)

5. public Thread(ThreadGroup grp, Object ob)

ANS : 2,3,4

QUESTION : 5

If you call the interrupted() method of a thread object twice

the second call will always return false.

1. True

2. False

ANS : 1

QUESTION : 6

If you call the isInterrupted() method of a thread object twice

the second call will always return false.

1. True

2. False

ANS : 2

QUESTION : 7

Which of the following are methods of the Thread class.

1. public void run()

2. public void start()

3. public void exit()

4. public final void setAccess()

5. public final void setPriority(int priNbr)

6. public final int getPriority()

ANS : 1,2,5,6

QUESTION : 8

Consider the following class

public class Test implements Runnable{

public void run(){}

}

True or False ?

Creating an instance of this class and calling its run() method

will spawn a new thread.

1. True

2. False

ANS : 2

QUESTION : 9

True or false?

A Thread object has a method called notify().

1. False

2. True

ANS : 2

The Thread class has a method notify() inherited from Object.

QUESTION : 10

Calling the destroy() method of a thread object relases all the locks held by

the thread ?

1. True

2. False

ANS : 2

Posted in [SCJP Mock Test](http://www.javaprogrammingworld.com/category/scjp-mock-test/) | [No Comments »](http://www.javaprogrammingworld.com/scjp-threads/#respond)

### [SCJP Collections](http://www.javaprogrammingworld.com/scjp-collections/)

Tuesday, September 9th, 2008

QUESTION : 1

What is the result of attempting to compile and run the following code?

public class Test1{

public static void main(String[] args)

{

Integer int1 = new Integer(10);

Vector vec1 = new Vector();

LinkedList list = new LinkedList();

vec1.add(int1);

list.add(int1);

if(vec1.equals(list)) System.out.println("equal");

else System.out.println("not equal");

}

}

1. The code will fail to compile.

2. Runtime error due to incompatible object comparison

3. Will run and print "equal".

4. Will run and print "not equal".

ANS : 3

correct answer/s : 3

QUESTION : 2

What is the result of attempting to compile and run the following code?

public class Test {

public static void main(String[] args){

Integer a = new Integer(4);

Integer b = new Integer(8);

Integer c = new Integer(4);

HashSet hs = new HashSet();

hs.add(a);

hs.add(b);

hs.add(c);

System.out.println(hs);

}

}

1. Will print [8, 4]

2. Will print [4, 8, 4]

3. Will print [8, 4, 4]

ANS : 1

correct answer/s : 1

QUESTION : 3

What is the result of attempting to compile and run the following code?

public class Test {

public static void main(String[] args){

Integer a = new Integer(4);

Integer b = new Integer(8);

Integer c = new Integer(4);

TreeSet hs = new TreeSet();

ts.add(a);

ts.add(b);

ts.add(c);

System.out.println(ts);

}

}

1. Will print [8, 4]

2. Will print [4, 8, 4]

3. Will print [8, 4, 4]

4. Will print [4, 8]

5. Will print [4, 4, 8]

ANS : 4

correct answer/s : 4

QUESTION : 4

What will this print out ?

public class Test {

public static void main(String[] args){

Integer a = new Integer(8);

Integer b = new Integer(4);

Integer c = new Integer(4);

Vector vec = new Vector();

Iterator itr;

vec.add(a);

vec.add(b);

vec.add(c);

itr = vec.iterator();

while (itr.hasNext()) {

System.out.println("" + itr.next());

}

}

}

1. 8 , 4 and 4

2. 4 , 4 and 8

3. 8 and 4

4. 4 and 8

ANS : 1

correct answer/s : 1

QUESTION : 5

Which of these statements are true?

1. HashTable is a sub class of Dictionary

2. ArrayList is a sub class of Vector

3. LinkedList is a subclass of ArrayList

4. Stack is a subclass of Vector

ANS : 1,4

correct answer/s : 1,4

QUESTION : 6

Which of these statements are true?

1. LinkedList extends List

2. AbstractSet extends Set

3. HashSet extends AbstractSet

4. WeakHashMap extends HashMap

5. TreeSet extends AbstractSet

ANS : 3,5

correct answer/s : 3,5

QUESTION : 7

Which of these statements are true?

1. A HashSet does not permit duplicates

2. A Vector permits duplicates

3. A TreeSet is an ordered Set

4. A LinkedList is sorted in descending order

5. A LinkedList is sorted in ascending order

ANS : 1,2,3

correct answer/s : 1,2,3

QUESTION : 8

True or False.

A WeakHashMap is synchronized.

1. True

2. False

ANS : 2

correct answer/s : 2

QUESTION : 9

True or False.

A Set rejects duplicates and is ordered

1. True

2. False

ANS : 2

correct answer/s : 2

QUESTION : 10

Select the true statements

1. AbstractSet extends AbstractCollection

2. AbstractList extends AbstractCollection

3. HashSet extends AbstractSet

4. Vector extends AbstractList

5. AbstrctSequentialList extends AbstractList

6. LinkedList extends AbstrctSequentialList

ANS : 1,2,3,4,5,6

correct answer/s : 1,2,3,4,5,6

### [SCJP Object Oriented Programming](http://www.javaprogrammingworld.com/scjp-object-oriented-programming/)

Tuesday, September 9th, 2008

QUESTION : 1

What is the result of compiling and running this program?

class Mammal{

void eat(Mammal m){

System.out.println("Mammal eats food");

}

}

class Cattle extends Mammal{

void eat(Cattle c){

System.out.println("Cattle eats hay");

}

}

class Horse extends Cattle{

void eat(Horse h){

System.out.println("Horse eats hay");

}

}

public class Test{

public static void main(String[] args){

Mammal h = new Horse();

Cattle c = new Horse();

c.eat(h);

}

}

1. prints "Mammal eats food"

2. prints "Cattle eats hay"

3. prints "Horse eats hay"

4. Class cast Exception at runtime.

ANS : 1

The method that will be called is the one

from class Mammal. The reasons are quite obvious.

QUESTION : 2

Comsider the following class hierarchy.

1. interface A{

2. public void method1();

3. }

4. class One implements A{

5. public void method1(){

6. System.out.println("hello");

7. }

8. }

9. class Two extends One{}

10. public class Test extends Two{

11. public static void main(String[] args)

12. {

13. A a;

14. Two t = new Two();

15. a = t;

16. a.method1();

17. }

18. }

What will be the outcome on attempting to compile and run this ?

1. Compiles and runs printing out "hello".

2. Compilation error at line 16.

3. The compiler raises an objection to the assignment at line 15.

4. Throws a NoSuchMethodException at runtime.

ANS : 1

Object reference conversion is possible here.

The old type which is class can be assigned

to an interface type as long as the class implements

that interface.

QUESTION : 3

What will happen if you try to compile and run this ?

interface A{

public void innerMeth();

}

public class Test {

A a;

int memVar = 1;

void aMethod(){

a = new A(){

public void innerMeth(){

System.out.println(memVar);

} };

}

public static void main(String[] args){

Test t = new Test();

t.a.innerMeth();

}

}

1. Compiler error.

2. NoSuchMethodException at runtime.

3. Compiles and runs printing 1

4. Throws a NullPointerException at runtime.

ANS : 4

You will get a NullPointerException because the

inner class object gets assigned to the reference a

only after the aMethod() runs. You can prevent

the exception by calling t.aMethod() before the

inner anonymous class method is called.

QUESTION : 4

What will happen if you try to compile and run this code.

class Rectangle{

public int area(int length , int width) {

return length \* width;

}

}

class Square extends Rectangle{

public int area(long length , long width) {

return (int) Math.pow(length ,2);

}

}

class Test{

public static void main(String args[]) {

Square r = new Square();

System.out.println(r.area(5 , 4));

}

}

1. Will not compile.

2. Will compile and run printing out 20

3. Runtime error

4. Will compile and run printing out 25

ANS : 1

This code will fail to compile because the

compiler cannot resolve the method call here.

QUESTION : 5

What will be the result of attempting to compile and run this.

class Base{}

class Derived extends Base{}

public class Test {

public static void main(String[] args){

Derived d = (Derived) new Base();

}

}

1. Will not compile

2. Compiles and runs without error.

3. Runtime error

ANS : 3

QUESTION : 6

What will this program print out ?

class Base{

int value = 0;

Base(){

addValue();

}

void addValue(){

value += 10;

}

int getValue(){

return value;

}

}

class Derived extends Base{

Derived(){

addValue();

}

void addValue(){

value += 20;

}

}

public class Test {

public static void main(String[] args){

Base b = new Derived();

System.out.println(b.getValue());

}

}

1. 10

2. 20

3. 30

4. 40

ANS : 4

QUESTION : 7

Almost the same code as in the previous question.

The only difference is the methods are static now.

What will it print now?

class Base{

static int value = 0;

Base(){

addValue();

}

static void addValue(){

value += 10;

}

int getValue(){

return value;

}

}

class Derived extends Base{

Derived(){

addValue();

}

static void addValue(){

value += 20;

}

}

public class Test {

public static void main(String[] args){

Base b = new Derived();

System.out.println(b.getValue());

}

}

1. 10

2. 20

3. 30

4. 40

ANS : 3

QUESTION : 8

What is the result of attempting to compile and run this ?

interface ITest{

public void setVal();

}

public class Test {

private String a;

void aMethod(){

final String b;

ITest it = new ITest() {

public void setVal(){

a = "Hello";

b = " World";

}};

it.setVal();

System.out.println(a + b);

}

public static void main(String[] args) {

Test t = new Test();

t.aMethod();

}

}

1. Code will not compile

2. Run time error

3. Will compile and run printing "Hello"

4. Will compile and run without any output

ANS : 1

QUESTION : 9

What is the result of attempting to compile and run this ?

class Base{

String s = "Base";

String show(){

return s;

}

}

class Derived extends Base{

String s = "Derived";

}

public class Test {

void print(Base b){

System.out.println(b.show());

}

void print(Derived d){

System.out.println(d.show());

}

public static void main(String[] args){

Test t = new Test();

Base b = new Derived();

t.print(b);

}

}

1. Code will not compile

2. Run time error

3. Will compile and run printing "Derived"

4. Will compile and run printing "Base"

ANS : 4

QUESTION : 10

What is the result of attempting to compile and run this ?

interface ITest{

public void setVal();

}

public class Test {

private String a;

void aMethod(){

final String b = " World";

ITest it = new ITest() {

public void setVal(){

a = "Hello" + b;

}};

it.setVal();

System.out.println(a);

}

public static void main(String[] args) {

Test t = new Test();

t.aMethod();

}

}

1. Code will not compile

2. Run time error

3. Will compile and run printing "Hello World"

4. Will compile and run printing "Hello"

ANS : 3

Posted in [SCJP Mock Test](http://www.javaprogrammingworld.com/category/scjp-mock-test/) | [No Comments »](http://www.javaprogrammingworld.com/scjp-object-oriented-programming/#respond)

### [SCJP Language Fundamentals](http://www.javaprogrammingworld.com/scjp-language-fundamentals/)

Tuesday, September 9th, 2008

QUESTION1

You have the following code in a file called Test.java

class Base{

public static void main(String[] args){

System.out.println("Hello");

}

}

public class Test extends Base{}

What will happen if you try to compile and run this?

1. It will fail to compile.

2. Runtime error

3. Compiles and runs with no output.

4. Compiles and runs printing "Hello"

ANS : 4

This will compile and print "Hello"

The entry point for a standalone java program is

the main method of the class that is being run.

The java runtime system will look for that method

in class Test and find that it does have such a method.

It does not matter whether it is defined in the class itself

or is inherited from a parent class.

QUESTION2

What is the result of trying to compile and run the following code.

public final static void main(String[] args){

double d = 10.0 / -0;

if(d == Double.POSITIVE\_INFINITY)

System.out.println("Positive infinity");

else

System.out.println("Negative infinity");

}

1. output Positive infinity

2. output Negative infinity

3. Will fail to compile

4. Runtime exception

ANS : 1

There is no such thing as a positive or negative zero.

Hence the result is always positive infinity.

QUESTION3

What is the result that will be printed out ?

void aMethod()

{

float f = (1 / 4) \* 10;

int i = Math.round(f);

System.out.println(i);

}

1. 2

2. 0

3. 3

4. 2.5

5. 25

ANS : 2

The result of 1/4 will be zero because integer

divion is carried out on the operands.

If you need to obtain a fractional value

you need to use either a float or double literal

as in 1F / 4F.

QUESTION4

Which of the following are valid declarations?

Note : None of the literals used here

contain the character O they are all zeroes.

1. int i = 0XCAFE;

2. boolean b = 0;

3. char c = 'A';

4. byte b = 128;

5. char c = "A";

ANS : 1,3

1. is correct as it is a valid hexadecimal number.2. is wrong

because you can only assign the values true and false to them

4 is wrong because 128 is beyond the range of a byte. 5is wrong

because "A" is not a char it is a String.

QUESTION5

What is the result of trying to compile and run this program.

public class Test{

public static void main(String[] args){

int[] a = {1};

Test t = new Test();

t.increment(a);

System.out.println(a[a.length - 1]);

}

void increment(int[] i){

i[i.length - 1]++;

}

}

1. Compiler error.

2. Compiles and runs printing out 2

3. Compiles and runs printing out 1

4. An ArrayIndexOutOfBounds Exception at runtime

ANS : 2

You are passing a reference to an array as

the argument to the method. The method may not

modify the passed object reference but it can modify

the object itself.

QUESTION6

What will happen if you try to compile and run this ?

public class Test{

static{

print(10);

}

static void print(int x){

System.out.println(x);

System.exit(0);

}

}

1. Compiler error.

2. Will throw a NoSuchMethod error at runtime.

3. It will compile and run printing out "10"

4. It will run with no output.

5. It will run and print "10" and then crash with an error.

ANS : 3

This will run, print a message and terminate gracefully.

The runtime system needs to load the class before it can look

for the main method. So the static initializer will run first

and print "10". Immediately after that System.exit(0) will be called

terminating the program before an error can be thrown.

QUESTION7

Is this legal?

long longArr[];

int intArr[] = { 7 ,8 , 9};

longArr = intArr;

1. Yes

2. No

ANS : 2

You cannot assign a reference to an array of primitives

to another unless they contain the same primitive types.

QUESTION8

True or False.

The range of a byte is from -127 to 128

1. True

2. False

ANS : 2

Correct answer/s : 2

The statement is false. The range of an array

is from - 128 to 127

QUESTION9

Identify the valid assignments.

1. float f = \u0038;

2. long L2 = 2L;

3. float f = 1.2;

4. char c = '/u004E';

5. byte b = 100;

ANS : 1,2,4,5

1 is correct because \u0038 is unicode for nbr 8.

3 is wrong because 1.2 is a double literal.

4. is a little sneaky perhaps. The

unicode escape character is incorrect

QUESTION10

What is the result of trying to compile and run the following code.

public static void main(String[] args){

double d = 10 / 0;

if(d == Double.POSITIVE\_INFINITY)

System.out.println("Positive infinity");

else

System.out.println("Negative infinity");

}

1. output Positive infinity

2. output Negative infinity

3. Will fail to compile

4. Runtime exception

ANS : 4

Division by zero on integer literals will throw

a runtime error.

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### [SCJP java.lang](http://www.javaprogrammingworld.com/scjp-javalang/)

Tuesday, September 9th, 2008

QUESTION : 1

What is the result of attempting to compile and run this ?

public class Test {

public static void main(String[] args){

String s = "HelloWorld".substring(5,10);

System.out.println(s);

}

}

1. The code will fail to compile.

2. Compile and run printing out "orld".

3. Compile and run printing out "oworl"

4. Compile and run printing out "World"

5. Run time exception

ANS : 4

QUESTION : 2

Select one right answer.

-----------------------

What is the result of attempting to compile and run this ?

1. public class Test {

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

3. Test t = new Test();

4. char c = 4 \* 4;

5. String s = "bead";

6. s = t.pearl(s);

7. System.out.println(Byte.parseByte(s,c));

}

8. String pearl(String s){

9. return s.substring(0,1);

}

}

1. Compiler error caused by line 4.

2. Compiler error caused by line 7.

3. Compiler error caused by line 9.

4. Compiles and throws a NumberFormatException at runtime.

5. Compiles and runs printing out a number.

6. Compiles and runs printing out an alphabet.

ANS : 5

1. Is wrong because it is legal to assign integer

literal to a char variable as long as the value

does not exceed the range of a char.

2. Is wrong because parseByte(String s , int radix)

will accept any native numeric type that is not

wider than an int.

3 and 6 are just nonsense.

4. Is wrong because the the character b falls within

the radix range specified by the second parameter.

QUESTION : 3

What is the value of d that will be printed out.

public class Test {

public final static void main(String[] args)

{

double d = - 22.22222;

System.out.println(Math.ceil(d));

}

}

1. 22

2. 22.0

3. -22

4. -23

5. -22.0

6. 23.0

ANS : 5

QUESTION : 4

What is the result of attempting to compile and run this ?

public class Test {

public static void main(String[] args)

{

StringBuffer a = "Hello";

StringBuffer b = a.append("World");

System.out.println(a);

}

}

1. It will print "World"

2. It will print "HelloWorld"

3. It will print "Hello World"

4. The code will not compile.

5. It will print "Hello"

6. It will throw a runtime exception

ANS : 4

QUESTION : 5

Which of the follwing are valid methods of the String class.

1. String append(String s);

2. int length();

3. String toString(String str);

4. String trim();

5. int indexOf(int ch);

6. String append(char c);

ANS : 2,4,5

QUESTION : 6

What is the result of attempting to compile and run this ?

public class Test {

public static void main(String[] args)

{

Float f = new Float(32D);

System.out.println(f);

}

}

1. Does not compile

2. Compiles and runs printing out "32"

3. Compiles and runs printing out "32.0"

4. Compiles but throws an error at runtime

ANS : 3

QUESTION : 7

What is the result of attempting to compile and run this ?

public class Test {

public static void main(String[] args){

byte a = 10;

Byte b = new Byte(a);

Byte c = new Byte(11);

System.out.println(b.compareTo(c));

}

}

1. Compiler error

2. Runtime error

3. Runs and prints "false"

4. Runs and prints "0"

5. Runs and prints "1"

6. Runs adn prints "-1"

ANS : 1

correct answer/s : 1

QUESTION : 8

What is the result of attempting to compile and run this ?

public class Test {

public static void main(String[] args){

Float f = new Float(16/0);

System.out.println(f.isNaN());

}

}

1. Compiler error

2. Runtime error

3. Runs and prints "false"

4. Runs and prints "true"

ANS : 2

QUESTION : 9

What is the result of attempting to compile and run this ?

public class Test {

public static void main(String[] args){

Number n = new Number(16);

Float f = new Float(16);

System.out.println(n.equals(f));

}

}

1. Compiler error

2. Runtime error

3. Runs and prints "false"

4. Runs and prints "true"

ANS : 1

QUESTION : 10

What is the result of attempting to compile and run this ?

public class Test {

public static void main(String[] args){

Integer i = new Integer(256);

System.out.println(i.byteValue());

}

}

1. Compiler error

2. Runtime error

3. Runs and prints "256"

4. Runs and prints "0"

5. Runs and prints "127"

ANS : 4