**COMPUTER PROGRAMMING (1)**

**Comprehensive Exam Samples**

1. **Multiple choices**
2. Which of the following variable is invalid?

(A) int NewYear; (B) int newyear; (C) int new year;

(D) int new\_year; (E) int new-year;

ANS: C

1. What is the output of this program?

class C1{

public static void main(String args[]){

int x=10, y=20;

y+=x;

System.*out*.println("Answer="+y+x);

}

}

(A) Answer=30 (B) Answer=2010 (C) Answer=3010

(D) Answer=40 (E) Answer=1030

ANS: C

1. What is the output of this program?

class C1{

public static void main(String args[]){

double a=123.4567;

System.*out*.printf("a=%8.3f", a);

}

}

(A) a=123.4567 (B) a= 123.456 (C) a= .456

(D) a= 123.457 (E) a= 123.4567

ANS: D

1. Which of the following variable is invalid?

(A) int count; (B) int $count; (C) int count28;

(D) int 8count; (E) int Count;

ANS: D

1. Consider the following fragment

byte a=10;

short b=100;

int c=1000;

long d=10000;

Which of the following statement gives a “type mismatch” error?

(A) a=b; (B) d=c; (C) c=a+b;

(D) c=a+b+c; (E) c=a+b+c+d;

ANS: A

1. Which of the following type is NOT a Java primitive type?

(A) int; (B) float; (C) string;

(D) char; (E) boolean;

ANS: C

1. What is the result of compiling and executing the following program?

public class P2 {

public static void main(String[] args) {

int i=0;

for(i=10;i>0;i=i-2)

System.out.print(i);

System.out.print(i);

}

}

(A) 109876543210 (B) 108642 (C) 1086420

(D) 1086421 (E) 10987654321

ANS: C

1. Given

class C1{

public static void main(String args[]){

int a=10;

int b=20;

System.*out*.println("Ans="+(A+B));

}

}

what is the result of compiling and executing the program?

(A) Ans=30 (B) Ans=1020 (C) Compilation fails

(D) Execution fails (E) Ans=2010

ANS: A

1. Given

class C1{

public static void main(String args[]){

int x=123;

int y;

y+1=x;

System.out.println("y="+y);

}

}

what is the result of compiling and executing the program?

(A) y=122 (B) y=123 (C) y=124

(D) Compilation fails (E) y=125

ANS: D

1. The java complier requires that a source file use the \_\_\_\_\_\_\_\_\_\_\_filename extension.

(A) .class (B) .txt (C) .java

(D) .javafile (E).jsp

ANS: C

1. Given
   1. public class C1 {
   2. public static void main(String args[]) {
   3. int x = 5;
   4. int y = 0;
   5. System.out.println("ans="+x/y);
   6. }
   7. }

, what is the result of compiling and executing the program?

(A) ans=5 (B) ans=0 (C) Compilation fails due to line 5.

(D) Exception due to line 5. (E) ans=50

ANS: D

1. Which one of the following expressions is illegal?

(A) int i = 123; (B) double d = 123f; (C) float f = 123;

(D) byte b = 123; (E) long l = 10000;

ANS: C

1. Which one of the following for-construct is free of syntax errors?

(A) for(double i=0; i<10.5; i+=0.5);

(B) for(int i=0; i=10; i++);

(C) for( ; );

(D) for(int i==0; i<10; i++);

(E) for(int i=0, i<10, i++);

ANS: A

1. What is the result of compiling and executing the following program?

public class P2 {

public static void main(String[] args) {

int x=10,y=20;

System.out.print(x++>10&&y++>20);

System.out.print(x);

System.out.print(y);

}

}

(A) false1121 (B) false1120 (C) true1121

(D) true1120 (E) false1020

ANS: B

1. Which one of the following expressions is illegal?

(A) byte b = 1000; (B) char c = 123; (C) float f = 123F;

(D) long b = 1234567890; (E) int i = (int)3.14;

ANS: A

1. What is the output of this program?

class C1{

public static void main(String args[]){

double x=2;

int y=5,z=2;

System.out.print(x+y/z);

}

}

(A) 4.5 (B) 4.0 (C) 4

(D) 3.5 (E) 3

ANS: B

1. What is the result of compiling and executing the following program?

class C1{

public static void main(String args[]){

float x=1234.567f;

float y= (int) x;

System.out.print(y);

}

}

(A) 1234.567 (B) 1234.0 (C) 1234

(D) 1235.0 (E) 1234.56

ANS: B

1. Which one of the following expressions is illegal?

(A) int x=y=z=10;

(B) int x,y,z=0;

(C) int x=0,y=0,z=0;

(D) int x=0,y=x,z=y;

ANS: A

1. Which one of the following is a legal identifier in Java?

(A) 2U

(B) int

(C) %bb

(D) a-3

(E) xpoints

ANS: E

1. Which one of the following expressions is legal for char data type?

(A) '2A'

(B) "2"

(C) '2'

(D) "\uA222"

(E) '\'

ANS: C

1. Which one of the following expressions is illegal?

(A) int i = 38.0;

(B) double d = 4.5f;

(C) boolean b = false;

(D) byte b = -128;

(E) float f = 227;

ANS: A

1. Which one of the following is not a legal String literal?

(A) ""

(B) "a"

(C) "abc "

(D) '0xABC'

(E) "\uA123"

ANS: D

1. Given the following program segment

if(x>0)

if(y<0)

++a

else

if(z>0) {

if(w>0) ++b;

}

else ++c;

, which of the following conditions is the one for executing ++c?

?

(A) Line 6 is illegal.

(B) x<0

(C) x>0, y>0, and z<0

(D) x>0, y>0, z>0, and w<0

(E) none of above

ANS: C

1. Given

public class Ex {

public static void main(String[] args) {

int x = 1, y = 10;

if(x >= 0 && y < 10) {

if(x < 0)

System.out.print("A");

}

else

if(y > 0)

System.out.print("B");

}

}

, what is the result of compiling and executing the given program?

(A) Compilation fails due to line 3

(B) Compilation fails due to line 4

(C) Print out nothing

(D) Print out "A"

(E) Print out "B"

ANS: E

1. Which one of the following for-construct is free of syntax errors?

(A) for(i == 1; i = 2;);

(B) for(; i = 1; );

(C) for(; ;);

(D) for(i = 1;;)

(E) for(;;i==1)

ANS: C

1. Which of the following is a valid Java identifier?

(A) Main (B) void (C) 2a (D) 5\_grade (E) @pu

ANS: A

1. Suppose variable gender is MALE and age equals 65, how is the following expression evaluated? (Assume that both MALE and FEMALE are two constant variables.)

( gender == FEMALE ) & ( age >= 65 )

(A) The condition ( gender == FEMALE ) is evaluated first and the evaluation stops immediately.

(B) The condition ( age >= 65 ) is evaluated first and the evaluation stops immediately.

(C) Both conditions are evaluated, from left to right.

(D) Both conditions are evaluated, from right to left.

(E) The expression is illegal.

ANS: C

1. Consider the code segment below. This segment is equivalent to which of the following?

if ( gender == 1 )

{

if ( age >= 65 )

++seniorFemales;

}

(A) if(gender ==1 && age >= 65) ++seniorFemales;

(B) if(gender ==1 || age >= 65) ++seniorFemales;

(C) if(gender ==1 AND age >= 65) ++seniorFemales;

(D) if(gender ==1 OR age >= 65) ++seniorFemales;

(E) if(gender ==1 ^ age >= 65) ++seniorFemales;

ANS: A

1. Given the following program segment
2. public class Test{
3. public static void main(String args[]){
4. int a = 25;
5. int b = 10;
6. System.out.print(a/b + ", ");
7. System.out.print((double)a/b);
8. }
9. }

, what is the result of compiling and executing the given program?

(A) Compilation fails due to line 5

(B) 2, 2.5

(C) 2.5, 2.5

(D) 2.5, 2

(E) 2, 2

ANS: B

1. Which one of the following is a legal identifier in Java?

(A) 3A

(B) cdegree

(C) %aa

(D) char

(E) set-flow

ANS: B

1. Which two of the following keywords are used to specify a Java data type?

(A) class

(B) double

(C) if

(D) char

(E) public

ANS: D

1. Which one of the following cannot cause a syntax error to be reported by the Java compiler?

(A) Mismatched {}

(B) Missing \*/ in a comment that begins with /\*

(C) Missing ;

(D) Extra blank lines

(E) Extra {

ANS: D

1. A variable declared within the opening and closing parenthesis of a method signature is called a \_\_\_\_.

(A) local variable

(B) instance field

(C) parameter

(D) class field

(E) constant

ANS: C

1. Which one of the following is valid Java identifiers?

(A) public

(B) main

(C) UnderScore

(D) id number

(E) long

ANS: C

1. Which one of the following expressions is illegal?

(A) int i = 38;

(B) double d = 3.5f;

(C) boolean b = "false";

(D) byte b = 125;

(E) float f = 126;

ANS: C

1. Which one of the following keywords is used to specify a Java data type? (A) void

(B) main

(C) static

(D) int

(E) public

ANS: D

1. Which one of these lists contains only Java programming language keywords?

(A) main, public, Void

(B) Class, int, void

(C) int, void, class

(D) static, extends, Implement

(E) public, Static, void

ANS: C

1. Syntax errors of a Java source program are examined by \_\_\_\_\_.

(A) java

(B) javac

(C) javadoc

(D) JVM

(E) API

ANS: B

1. Which one of the following Java programs is free of syntax errors?

(A) Class class { }

(B) class class { }

(C) class Some { }

(D) class public ( )

(E) Class Some (String[] args)

ANS: C

In Java, a multiline comment begins with \_\_\_\_\_.

(A) \*\*

(B) //

(C) {

(D) \*/

(E) /\*

ANS: E

1. Which one of the following for-construct is free of syntax errors?

(A) for(c == 0; c = 1;);

(B) for(; c = 0; );

(C) for(; ;)

(D) for(c = 0;;);

(E) for(;;c==0)

ANS: D

1. Which one of the following is a Java primitive data type representing real numbers?

(A) int

(B) boolean

(C) void

(D) double

(E) long

ANS: D

1. Which one of the following expressions is legal?

(A) "9\*5 = " + 9 \* 5

(B) 9 > 5 = 5 < 9

(C) "9>5 is " + 9 > 5

(D) a = b + 1 = 3

(E) 5 > 8 = true

ANS: A

1. Which of the following are legal lines of code?

(A) int w = (int)888.8;

(B) byte x = (byte)1000L;

(C) long y = (byte)100;

(D) byte z = (byte)100L;

(E) All statements are correct.

ANS: E

1. What will be the output of the program?

|  |
| --- |
| class Test{  public static void main(String [] args){  int x= 0;  int y= 0;  for (int z = 0; z < 5; z++){  if (( ++x > 2 ) || (++y > 2)){  x++;  }  }  System.out.println(x + " " + y);  }  } |

(A) 5 3 (B) 8 2 (C) 8 3 (D) 8 4 (E) 8 5

ANS: B

1. Which one of the following commands can be used to compile the MyClass.java?

(A) javac MyClass.java (B) javac MyClass (C) java MyClass.java

(D) java MyClass.class (E) javadoc MyClass

ANS: A

1. Which one of the following is a legal Java identifier?

(A) Class (B) double (C) 2a (D) id-number (E) public

ANS: A

1. Given
2. public class Magic {
3. public static void main(String[] args) {
4. boolean b;
5. b = false;
6. if(b)
7. b = true;
8. System.out.print("A");
9. if(!b)
10. System.out.print("B");
11. }
12. }

, what is the result of compiling and executing the given program?

(A) Compilation fails due to line 8 (B) Execution fails due to line 4

(C) Output A (D) Output B (E) Output AB

ANS: E

1. Given
   * 1. for ( int q = 1; q <= 100; q++ )
     2. for ( int q = 100; q >= 0; q-- )
     3. for ( int q = 99; q > 0; q -= 9 )
     4. for ( int q = 990; q > 0; q -= 90 )

what of the above for-loop will perform the same number of iterations?

(A) I and II (B) II and III (C) III and IV (D) I, II and IV

(E) II, III and IV

ANS: C

1. Which one of the following is a correct char literal?

(A) '' (B) '\' (C) "a" (D) '\u0000' (E) "\n"

ANS: D

1. Which one of the following is a correct String literal?

(A) "\\\" (B) "\u" (C) 'a' (D) "a'a" (E) 'public'

ANS: D

1. Given
2. public class Banana {
3. public static void main(String args) {
4. final byte CONST = 10;
5. short s1, s2 = 3;
6. // **insert statement here**
7. }
8. }

and the following statements

s1 = 3 + 5;

s1 = s2 + 4;

s1 = CONST + 5;

s1 = s2 \* 2;

s1 = 3 \* 2;

, what statements inserted at line 5 will not fail the compilation?

(A) Only I and V (B) Only II and V (C) Only I, III and V

(D) None of them (E) Only II, III and IV

ANS: C

1. Which one of the following Java methods is free of syntax errors?

(A) void public toDo{ } ( ) (B) public static toDo( ) { }

(C) static void toDo( ) { } (D) int toDo{ } ( )

(E) Void toDo( ) { }

ANS: C

1. Which one of the following literals is equivalent to 24?

(A) "30" (B) "24" (C) 0x30 (D) 030 (E) 024

ANS: D

1. Which one of the following choices is illegal?

(A) char cVal = 'X'; cVal += cVal \* 2.2;

(B) char cVal = 'X'; cVal++;

(C) char cVal = 'X'; cVal = cVal + 1;

(D) char cVal ; int iVal = 0x41; cVal = iVal;

(E) char cVal = 'X'; int iVal = ch;

ANS: CD

1. Given
2. public class Collie {
3. public static void main(String[] args) {
4. int x = 7;
5. System.out.print(x++ + "," + ++x);
6. x = x++ + 2;
7. System.out.print("," +x);
8. x = ++x + 2;
9. System.out.print("," +x);
10. }
11. }

, what is the result of compiling and executing the given program?

(A) Output 7,9,11,14 (B) Output 7,8,11,13 (C) Output 8,9,13,15

(D) Compilation fails. (E) Execution fails.

ANS: A

1. Given

1. public class Ex {

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

3. int x = 0, y = 10;

4. if(--x >= 0 || ++y < 10) {

5. if(x < 0)

6. System.out.print("A");

7. }

8. else

9. if(y > 10)

10. System.out.print("B");

11. else

12. System.out.println("C");

13. }

14. }

, what is the result of compiling and executing the given program?

(A) Output A (B) Output B (C) Output C

(D) Execution fails. (E) Execution completes and print nothing.

ANS: B

1. Given
2. public class Apple {
3. public static void main(String args) {
4. Integer obj1, obj2, obj3, obj4;
5. obj1 = 130;
6. obj2 = 130;
7. obj3 = obj4 = 300 + obj1;
8. System.out.print((obj1 == obj2) + "," + (obj3 == obj4));
9. }
10. }

, what is the result of compiling and executing the given program?

(A) Compilation fails due to line 6. (B) Output true,true

(C) Output true,false (D) Output false,true (E) Output false,false

ANS: D

1. Given
2. public class Bulldog {
3. public static void main(String args) {
4. int x = 10;
5. x += x + (x = 1) \* 3;
6. System.out.print(x + ",");
7. x += (x = 1) + x \* 3;
8. System.out.print(x);
9. }
10. }

, what is the result of compiling and executing the program?

(A) Compilation fails. (B) Execution fails. (C) Output 23,27

(D) Output 14,5 (E) Output 5,5

ANS: C

1. Which one of the following for-construct is free of syntax errors?

(A) for(double c = 0; c < 10.5; c += 0.5); (B) for(; c = 0; ); (C) for(;);

(D) for(int c == 0; ;); (E) for(boolean c = true; ;c = !c);

ANS: A

1. **Filling blanks**
2. What is the result of compiling and executing the following program? If there is any compilation or execution error, you need to show it to get credits.

class C1{

public static void main(String args[]){

int x=5, y=10, z;

z = x++ + ++y;

System.*out*.print(x);

System.*out*.print(y);

System.*out*.print(z);

}

}

ANS: 61116

1. What is the result of compiling and executing the following program? If there is any compilation or execution error, you need to show it to get credits.

class C1{

public static void main(String args[]){

boolean p;

p= 5>3+2 || 1+2\*3 ==7 && 10!=10;

System.*out*.println(p);

}

}

ANS: false

1. What is the result of compiling and executing the following program? If there is any compilation or execution error, you need to show it to get credits.

class C1{

public static void main(String args[]){

System.*out*.println(1-2+3/4\*5<6==7>=8);

}

}

ANS: false

1. What is the result of compiling and executing the following program? If there is any compilation or execution error, you need to show it to get credits.

class C1{

public static void main(String args[]){

System.*out*.println(1-2+3/4\*5<6==7);

}

}

ANS: compilation error

1. What is the result of compiling and executing the following program? If there is any compilation or execution error, you need to show it to get credits.

public class C1 {

public static void main(String[] args) {

int x=10, y=20;

if(x==10)

System.out.print("A");

else if(y==20)

System.out.print("B");

else

System.out.print("C");

System.out.print("D");

}

}

ANS: AD

1. In Java, a single-line comment begins with a \_\_\_\_\_\_\_\_\_\_\_\_\_ and ends at the end of the line.

ANS: //

1. Java Development Kit(JDK) supplies two primary programs. The first is \_\_\_\_\_\_\_\_\_\_\_\_, which is the Java complier. The second is \_\_\_\_\_\_\_\_\_\_\_\_\_, which is the standard Java interpreter.

ANS: javac java

1. Given

class C1{

public static void main(String args[]){

int x=123, y=456;

y=x;

System.out.println(x-y);

}

}

, what is the result of compiling and executing the program?\_\_\_\_\_\_\_\_

ANS: 0

1. what is the output of the program?\_\_\_\_\_\_\_\_

class C1{

public static void main(String args[]){

int x=10, y=20;

if(x==10)

System.out.print(x);

System.out.print(y);

}

}

ANS: 1020

1. what is the output of the program?\_\_\_\_\_\_\_\_

class C1{

public static void main(String args[]){

int x=10, y=20, z=30;

if(x==10)

System.out.print(x);

if(y>20)

System.out.print(y);

else

System.out.print(z);

}

}

ANS: 1030

1. Java provides special *escape sequences*. Java uses \_\_\_\_\_\_\_\_ to generate a new line.

ANS: \n

1. What is the output by the following Java code segment? \_\_\_\_\_\_\_\_

boolean t = true;

int v = 10;

if (t && ++v > 10)

System.out.print(v);

if (t & ++v > 10)

System.out.print(v);

ANS: 1112

1. What is the output by the following Java code segment? \_\_\_\_\_\_\_\_

boolean t = true;

int v = 10;

if (t || ++v > 10)

System.out.print(v);

if (t | ++v > 10)

System.out.print(v);

ANS: 1011

1. What is the output by the following Java code segment? \_\_\_\_\_\_\_\_

char c = 10;

int i = 20;

float f = 30f;

double d = 40;

System.out.println(c+i+f+d);

ANS: 100.0

1. what is the output of the program?\_\_\_\_\_\_\_\_

class C1{

public static void main(String args[]){

int i, j;

for(i=0,j=10;i<j;i++,j--){

System.out.print(i);

System.out.print(j);

}

}

}

ANS: 01019283746

1. The following statement shows \_\_\_\_\_\_\_\_\_\_ on the monitor.

System.out.println(″\\\\″);

ANS:\\

1. The following statement shows \_\_\_\_\_\_\_\_\_\_\_ on the monitor.  
    System.out.println( ”44” + 33 + 22);

ANS: 443322

1. The following statement shows \_\_\_\_\_\_\_\_\_\_\_ on the monitor.  
    System.out.println(″5 / 4″);

ANS: 5 / 4

1. The following statement shows \_\_\_\_\_\_\_\_\_\_\_ on the monitor.  
    System.out.println( 7 / 4);

ANS: 1

1. What is the result of the expression (double)(3 / 5)? \_\_\_\_\_\_\_\_\_\_\_

ANS: 0.0

1. Assuming number is an int variable, write a statement using a shorthand operator equivalent to this one:

number = number \* 5;

ANS: number \*= 5;

1. Rewrite one (and only one) statement equivalent to:

int age;

age = 32;

ANS: int age = 32;

1. What is the output of the following code?

int age = 34;

if( age > 33 )

System.out.print( 1 );

System.out.println( 2 );

ANS: 12

1. What is the output of the following code?

int age = 30;

if( age > 33 )

System.out.print( 1 );

else

System.out.print( 2 );

System.out.println( 3 );

ANS: 23

1. What is the output of the following code?

for( int i = 5; i >= 0; i-- )

System.out.print( i );

ANS: 543210

1. The result of evaluating -10 % 4 is equal to \_\_\_\_\_\_

ANS: -2

1. Assuming the for loop header for( i = 0; i <= 7; i++ ), what will be value of i after we exit the loop?

ANS: 8

1. Evaluate the Boolean equation: !( ( 6 < 5) && (4 < 3))

ANS: true

1. What is the output of the following code?

int a = 10;

int b = 20;

int num = (--a)+(b--);

System.out.print( num );

ANS: 29

1. Given the following program segment, what is the output if i, j and k are equal to 10, 11 and 100, respectively?

a = 0;

if(i == 10) {

if(j < 20) {

a = 10;

if(k > 100) a = 20;

}

else a = 30;

}

else a = 40;

System.out.println(a);

ANS: 10

1. What is the result value of val at the end of the following code segment?

int val = 10;

val \*= val++ % ++val;

ANS: 100

1. What is the output of the following statement?

System.out.println("Exam" + 6 \* 7);

ANS: Exam42

1. Name the eight primitive Java types: byte, \_\_\_\_, int, \_\_\_\_, float, \_\_\_\_, char, \_\_\_\_.

ANS: short long double Boolean

1. What is the content of variable x after executing the following statements?

|  |
| --- |
| int x = 10;  x += (x = 5) \* (++x \* 2); |

ANS: 70

1. What is the result of the following expressions?

(float)8/5

(float)(8/5)

ANS: 1.6 1

1. What is the result of the following expressions?

5 \* 3 < 20 & 3 + 7 > 9 - 1 || 20 >= 20 -30 && false

ANS: true

1. Single quotes in Java are used with constants of the \_\_\_type.

ANS: char

1. A(n) \_\_\_ statement in a loop will cause the program to immediately exit the loop.

ANS: break

1. The symbol \_\_\_ in an expression means not.

ANS:!

1. A(n) \_\_\_\_\_\_\_ must begin with a letter, followed by any number of letters, digits, and the underscore character.

ANS: identifier

1. Which package is very important in Java and will be loaded automatically without import this package?

ANS: java.lang

1. In J2SE, the object representing the standard output is \_\_\_\_

ANS: System.out

1. The characteristics of object oriented programming include \_\_\_\_,\_\_\_\_,\_\_\_\_,\_\_\_\_

ANS: Encapsulation, Information hiding, inheritance, polymorphism

1. Write a single statement to define a Java constant named MAX which is a double-type class constant and can be accessed by codes from any objects.

ANS: public final static double MAX;

1. In a Java class, \_\_\_\_\_\_\_\_ are used to store the attribute values of an object.

ANS: field

1. Write a Java Boolean expression which is true if the contents of two variables val1 and val2 are both greater than 10 or both not greater than 10.

ANS:!((val1 > 10)^(val2 > 10))

1. Given the following program segment

if(x>0)

if(y<0)

++a

else

if(z>0) {

if(w>0) ++b;

}

else ++c;

, write the condition that ++c will be executed.

ANS: x>0 ,y>=0 and z <=0

1. What is the output of the following program? \_\_\_\_\_\_\_\_\_

class Banana {

static int val = 10;

public static void main(String args[]) {

double val = 100;

System.out.println(val);

}

}

ANS: 100.0

1. Given the following program segment, what is the output if i, j and k are equal to 11. 10 and 200, respectively?

int a = 0, b = 0;

if(i == 10)

a = 100;

b = 30;

if(j < 20) {

a = 10;

if(k > 100) a = 20;

}

else

a = 30;

System.out.println(a + b);

ANS: 50