1. 填空题

1：假设

String s1 = "Welcome to Java";

String s2 = s1;

String s3 = new String("Welcome to Java");

那么下面表达式的结果是什么？

(1) s1 == s2 \_\_\_\_\_\_\_\_\_\_**true**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(2) s1 == s3 \_\_\_\_\_\_\_\_\_\_**false**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(3) s1.equals(s2) \_\_\_\_\_\_\_\_\_\_**true**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(4) s2.equals(s3) \_\_\_\_\_\_\_\_\_\_**true**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(5) s1.compareTo(s2); \_\_\_\_\_\_\_\_\_\_**0**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(6) s2.compareTo(s3); \_\_\_\_\_\_\_\_\_\_**0**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(7) s1.charAt(0); \_\_\_\_\_\_\_\_\_\_**’W’**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(8) s1.indexOf('j'); \_\_\_\_\_\_\_\_\_\_**-1**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(9) s1.indexOf("to"); \_\_\_\_\_\_\_\_\_\_**8**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(10) s1.lastIndexOf("o",15) \_\_\_\_\_\_\_\_\_**9**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(11) s1.substring(3, 11); \_\_\_\_\_\_\_\_\_\_**”come to ”**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(12) s1.endsWith("Java") \_\_\_\_\_\_**true**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(13) s1.startsWith("wel"); \_\_\_\_\_\_\_\_\_**false**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(14) " We come ".trim(); \_\_\_\_\_\_\_\_\_**”We come”**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(15) s1.toUpperCase(); \_\_\_\_\_\_\_\_\_**”WELCOME TO JAVA”**\_\_\_\_

(16) s1.replace('o', 'T'); \_\_\_\_\_\_\_\_\_**”WelcTme tT Java”**\_\_\_\_\_\_\_\_\_

2．如果

StringBuffer s1 = new StringBuffer("Java");

StringBuffer s2 = new StringBuffer("HTML");

假设下列每个语句是独立的，每条语句结束后，写出相应结果

(1) s1.append(" is fun"); s1为\_**”Java is fun”**\_\_\_

(2) s1.append(s2); s1为\_**”JavaHTML”**\_\_\_\_\_\_\_

(3) s1.insert(2, "is fun"); s1为\_**”Jais funva”**\_\_\_\_\_\_

(4) s1.insert(1,s2); s1为\_**”JHTMLava”**\_\_\_\_\_\_\_\_\_

(5) char c = s1.charAt(2); c为\_\_**’v’**\_\_\_\_\_\_\_\_\_\_\_

(6) int i = s1.length(); i为\_\_\_**4**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(7) s1.deleteCharAt(3); s1为\_\_**”Jav”**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(8) s1.delete(1,3); s1为\_\_**”Ja”**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(9) s1.reverse(); s1为\_\_**”avaJ”**\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(10) s1.replace(1,3, "Computer"); s1为\_\_**”JComputera”**\_\_\_\_\_\_\_\_\_\_\_\_

(11) String s3 = s1.substring(1,3);

s3为\_\_\_**”av”**\_\_\_\_\_\_\_\_\_\_\_\_，s1为\_\_\_\_**”Java”**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(12) String s4 = s1.substring(2);

S4为\_\_\_\_**”va”**\_\_\_\_\_\_\_\_\_\_，s1为\_\_\_\_\_**”Java”**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. 假设StringBuffer s = new StringBuffer("Welcome to JAVA");

将s的内容清空的语句是\_\_\_\_\_\_\_\_\_\_ **s.delete(0,s.length())**\_\_。

4.如果

String s1 = "Welcome";  
String s2 = new String("Welcome");  
String s3 = s2.intern();  
String s4 = "Wel" + "come";  
String s5 = "Wel";  
String s6 = "come";  
String s7 = s5 + s6;  
String s8 = "Wel" + new String("come");

那么下面表达式的结果为：

（1）s1 == s2 \_\_\_**false**\_\_\_\_\_\_\_\_\_

（2）s1 == s3 \_\_\_**true**\_\_\_\_\_\_\_\_\_

（3）s1 == s4 \_\_\_**true**\_\_\_\_\_\_\_\_\_

（4）s1 == s7 \_\_\_**false**\_\_\_\_\_\_\_\_\_

（5）s1 == s8 \_\_\_**false**\_\_\_\_\_\_\_\_\_

（6）s1.equals(s2) \_\_\_\_**true**\_\_\_\_\_\_\_\_

（7）s1.equals(s3) \_\_\_\_**true**\_\_\_\_\_\_\_\_

（8）s1.equals(s4) \_\_\_\_**true**\_\_\_\_\_\_\_\_

（9）s1.equals(s7) \_\_\_\_**true**\_\_\_\_\_\_\_\_

（10）s1.equals(s8) \_\_\_\_**true**\_\_\_\_\_\_\_\_

二、单项选择题

1．可以获取字符串s的最后一个字符的表达式是\_\_\_**C**\_\_\_\_\_。

（A）s.length()

（B）s[s.length() - 1]

（C）s.charAt(s.length() - 1)

（D）charAt(s, length(s))

2. 下面程序

class C {

public static void main(String[] args) {

String s = “null”;

if(s == null)

System.out.print(“a”);

else if(s.length() == 0)

System.out.print(“b”);

else

System.out.print(“c”);

}

}

的输出为\_\_\_**C**\_\_\_\_\_。

（A）a （B）b

（C）c （D）null

3. 下面的程序

class C {

public static void main(String[] args) {

String s = “Welcome to ”;

concat(s);

System.out.print(s);

}

public static void concat(String s) {

s += “Java”;

}

}

的输出为\_\_\_**A**\_\_\_\_\_。

（A）Welcome to （B）Welcome to Java

（C）编译错误 （D）运行时异常

三、编程题

1：编写程序，从控制台或对话框任意输入一个英文字符串，统计字符串中每个英文字母出现的次数并输出到控制台（大小写不敏感）。

package course.ch4\_5;  
  
import javax.swing.\*;  
  
*/\*\*  
 \* Enter an English string from the console or dialog box  
 \* count the number of times each English letter in the string appears  
 \* and output it to the console (case-insensitive)  
 \*/*public class CountNumofLetter {  
 */\*\*  
 \* The entrance of program  
 \*  
 \** ***@param*** *args: command line arguments  
 \*/* public static void main(String[] args) {  
 String temp = JOptionPane.*showInputDialog*(null, "Input an English String", "InputDialog", JOptionPane.*PLAIN\_MESSAGE*);  
 String lowerTemp = temp.toLowerCase();  
 System.*out*.println("Your Input:" + lowerTemp);  
 StringBuilder pend = new StringBuilder(lowerTemp);  
 int[] count = new int[26];  
 for (int i = 0; i < pend.length(); i++)  
 count[pend.charAt(i) - 'a']++;  
 for (int i = 0; i < 26; i++)  
 System.*out*.printf("%c or %c : %d\n", 'a' + i, 'A' + i, count[i]);  
 }  
}

2：假设一个车牌号码由三个大写字母和后面的四个数字组成。编写一个程序. 随机生

成5个不重复的车牌号如下。

package course.ch4\_5;  
  
import java.util.ArrayList;  
import java.util.List;  
  
*/\*\*  
 \* Suppose a license plate number consists of three uppercase letters and four numbers after it.  
 \* Write a program. Randomly generated into 5 non-duplicate license plate numbers.  
 \*/*public class VehicleNumberGenerator {  
 private static final int *UPPER\_LETTER\_LENGTH* = 3;  
 private static final int *DIGIT\_LENGTH* = 4;  
  
 */\*\*  
 \* 产生指定数目的不重复车牌号码，车牌号码由三个大写字母和后面的四个数字组成  
 \*  
 \** ***@param*** *n 车牌个数  
 \** ***@return*** *生成的车牌  
 \*/* public static String[] generate(int n) {  
 if (n < 1)  
 return null;  
  
 List<Object> list = new ArrayList<>();  
 while (list.size() < n) {  
 //Generate Uppercase Letter  
 char[] letters = new char[*UPPER\_LETTER\_LENGTH*];  
 for (int j = 0; j < *UPPER\_LETTER\_LENGTH*; j++) {  
 letters[j] = RandomCharacter.*getRandomUpperCaseLetter*();  
 }  
 //Generate Digits  
 char[] digits = new char[*DIGIT\_LENGTH*];  
 for (int j = 0; j < *DIGIT\_LENGTH*; j++) {  
 digits[j] = RandomCharacter.*getRandomDigitCharacter*();  
 }  
 String number = String.*valueOf*(letters) + String.*valueOf*(digits);  
  
 if (!list.contains(number)) { //只有不重复，才加入list  
 list.add(number);  
 }  
  
 }  
  
 return (String[]) list.toArray(new Object[0]);  
 }  
  
 public static void print(String[] numbers) {  
 for (String number : numbers) {  
 System.*out*.println(number);  
 }  
 }  
  
 public static void main(String[] args) {  
 VehicleNumberGenerator.*print*(VehicleNumberGenerator.*generate*(5));  
 }  
}  
  
class RandomCharacter {  
 */\*\*  
 \* Generate a random character between ch1 and ch2  
 \*/* public static char getRandomCharacter(char ch1, char ch2) {  
 return (char) (ch1 + (int) (Math.*random*() \* (ch2 - ch1 + 1)));  
 }  
  
 */\*\*  
 \* Generate a random lowercase letter  
 \*/* public static char getRandomLowerCaseLetter() {  
 return *getRandomCharacter*('a', 'z');  
 }  
  
 */\*\*  
 \* Generate a random uppercase letter  
 \*/* public static char getRandomUpperCaseLetter() {  
 return *getRandomCharacter*('A', 'Z');  
 }  
  
 */\*\*  
 \* Generate a random digit character  
 \*/* public static char getRandomDigitCharacter() {  
 return *getRandomCharacter*('0', '9');  
 }  
  
 */\*\*  
 \* Generate a random character  
 \*/* public static char getRandomCharacter() {  
 return *getRandomCharacter*('\u0000', '\uFFFF');  
 }  
}