**Please read the question carefully and choose the correct option!**

1. The following are keywords found in Java, except..
   a. Goto
   b. Break
   c. If
   d. String

2. A method that can be executed automatically when an object of a class is created is known as..
   a. Constructor
   b. Initializer
   c. Garbage Collector
   d. Inheritance

3. The term to protect data from attempts to modify, destroy and duplicate data by unauthorized parties is..
   a. Inheritance
   b. Polymorphisme
   c. Constructor
   d. Encapsulation

4. The java syntax for compiling program files is
   a. Java
   b. Javac
   c. Javaclass
   d. Javax

5. Class B inherits from Class A, what cannot be said:
   a. B is a sub-class of A
   b. A is a super-class of B
   c. B has access to private members of A
   d. B has access to protected members of A

6. The following are primitive data types:
   a. Boolean
   b. Character
   c. Byte
   d. Double
   All of this option are primitive data types

7. The keyword used to make the value fixed and immutable is…
   a. Protected
   b. Private
   c. Public
   d. Final

8. The method used to convert all letters in a string to uppercase / capital is
   a. UpperCase()
   b. toUperCase()
   c. toUpperCase()
   d. isUpperCase()

9. Select the valid statement.
   a. char[] ch = new char(5)
   b. char[] ch = new char[5]
   c. char[] ch = new char()
   d. char[] ch = new char[]

10. compareTo() returns
   a. true
   b. false
   c. an int value
   d. none

11. What is the return value if a=7 and b=3?
   static int function(int a, int b) { int c = a++ - b; int d =
   a + ++b; return (d % c);

   }

   a. 0

   b. 1

   c. 2

   d. 3

12. What is the result value at the end of execution?
   int inp[] = new int[] {5, 4, 6, 7, 3, 6}; int result
   = 0;  try { for (int i = 1; i <= inp.length; i++) {
   result += inp[i]; }

   } catch (Exception exception) { }

   a. 25
   b. 26
   c. Runtime error
   d. Compile error

13. There is something wrong with the code. How to fix it?

```
public class Test6 { public String var = "
        world"; public static void main(String
        args[]) {
                System.out.println("Hello" + var);
        }
}
```

a. System.out.println("Hello" + Test6.var);
b. System.out.println("Hello" + this.var);
c. public static String var = " world";
d. public final String var = " world";

14. What is the output of the function if n=6?

```
static int myFunc(int n) {
        if (n == 0) { return
        0;
        } else if (n == 1) {
                return 1;
        } else if (n > 1) {
                return myFunc(n-1) + myFunc(n-2);
        } else { return -1;
        }
}
```

a. 5
b. 6
c. 8
d. -1

15. What is the value of d?

```
String a = "KLMN"; String b = " AB CDEFGHIJ ";
String c = b.trim().substring(3, 7);
String d = c.concat(a);
```

a. CDEKLMN
b. DEFGHIJKLMN
c. CDEFKLMN
d. DEFGKLMN

Please create a query to answer questions number 16 – 19 based on the table below:

| nik | nama | alamat | kota | provinsi | pulau | total_pembelian_2017 | total_pembelian_2018 | point | tgl_regis |
|---|---|---|---|---|---|---|---|---|---|
| 3276001 | Ahmad | Jl. Telaga No 3 | Bandar Lampung | Lampung | Sumatra | 984.000,00 | 430.000,00 | 7070 | 14-Nov-17 |
| 3276002 | Saiful Ahmad | Jl. Cendrawasih | Batam | Kepulauan Riau | Batam | 265.000,00 | 684.000,00 | 4745 | 12-Apr-17 |
| 3276003 | Lina | Jl. Mawar | Makassar | Sulawesi Selatan | Sulawesi | 902.000,00 | 883.000,00 | 8925 | 22-Sep-17 |
| 3276004 | Erni | Jl. Cut Nyak Dien | Pontianak | Kalimantan Barat | Kalimantan | 384.000,00 | 377.000,00 | 3805 | 30-Oct-16 |
| 3276005 | Anto | Jl. Kamboja | Jakarta Barat | DKI Jakarta | Jawa | 561.000,00 | 293.000,00 | 4270 | 20-Apr-17 |
| 3276007 | Maya | Jl. Anoa | Batam | Kepulauan Riau | Batam | 679.000,00 | 746.000,00 | 7125 | 9-Aug-16 |
| 3276008 | Hadi | Jl. Hiu | Jakarta Barat | DKI Jakarta | Jawa | 239.000,00 | 987.000,00 | 6130 | 8-Apr-16 |

16. Sort customer data based on the highest point to the lowest point

```
SELECT * FROM customers ORDER BY point DESC;
```

17. Show all data with customer names containing the word Ahmad

```
SELECT * FROM customers WHERE nama LIKE '%Ahmad%';
```

18. Show for the NIK and Name of the Customer who made the 3rd most total purchases in the last 2 years

```
SELECT nik, nama
FROM (
    SELECT nik, nama, SUM(total_pembelian_2017 +
total_pembelian_2018) as total_pembelian
    FROM customers
    GROUP BY nik, nama
    ORDER BY total_pembelian DESC
    LIMIT 1 OFFSET 2
) AS third_most_purchase;
```

19. Show total customer purchases outside Java throughout 2017

```
SELECT SUM(total_pembelian_2017) AS total_purchase_outside_jawa
FROM customers
WHERE pulau <> 'Jawa';
```

20. Show all data with NIK, NAMA, ALAMAT, and TOTAL_MARGIN. The rule for TOTAL_MARGIN is if the difference between total_pembelian_2017 and total_pembelian_2018 is a surplus, then display 'Profit' otherwise, display 'Defisit'

```
SELECT nik, nama, alamat,
    CASE
         WHEN total_pembelian_2017 - total_pembelian_2018 > 0 THEN
     'Profit'
         ELSE 'Defisit'
    END AS TOTAL_MARGIN
FROM customers;
```

21. Show all data with NIK, NAMA, and ALAMAT_LENGKAP. The rule for ALAMAT_LENGKAP is as follows: 'alamat, Kota, Provinsi - Pulau'. Also, sort by newest TGL_REGIS

```
SELECT NIK, NAMA,
    CONCAT(alamat, ', ', kota, ', ', profinsi, ' - ',
pulau) AS ALAMAT_LENGKAP
FROM customers
ORDER BY tgl_regist DESC;
```