28-3-2018

DOON UNIVERSITY, DEHRADUN

Mid Semester Examination, Even Semester, 2018

Academic Year 2017-18 (Even Semester)

School of Physical Sciences (Computer Science)

Integrated M.Sc. (Physics, Chemistry & Mathematics), IV semester

CSG-251: Programming in Java

Time Allowed 2.00 Hours ***Maximum Marks: 30***

SECTION : A **(Total Marks: 6 × 1 = 12)**

Q.1) Which one of the following is the valid declaration of an array with five numbers?

(a) Array a = new Array(5);

(b) int a [] = new int[5];

(c) int [5] array;

(d) int a[5]= new int[];

Q.2) A Java variable cannot start with

(a) An alphabet

(b) A number

(c) A special symbol other than underscore and dollar

(d) Both (2) & (3) above

Q.3) State whether the following statement is TRUE or FALSE: **"Java is case-sensitive".**

Q.4) The **break** statement is used to exit from:

(a) an **if** statement

(b) **for** loop

(c) a program

(d) the **main( )** function

Q.5) In what sequence the initialization, testing and execution of body is done in a do-while loop

(a) Initialization, execution of body, testing

(b) Execution of body, initialization, testing

(c) Initialization, testing, execution of body

(d) None of the above

Q.6) Define keywords in Java ?

SECTION : B (Answer any four) **(Total Marks: 4 × 3 = 12)**

Q.7) Compare in terms of their function, the following pair of statements:

a) While and do-while b) Break and continue

Q.8) Demonstrate use of looping by taking suitable example.

Q.9) Explain how java is platform independent language.

Q.10) Write short notes on: Data types in Java

Q.11) Write a program to find whether a given no. is prime or not.

SECTION : C (Answer any three) **(Total Marks: 3 × 4 = 12)**

Q.12) Write a program to determine whether a given no. is Armstrong no. or not.

Q.13) Write a program to find the largest element in each row in a two dimensional array.

Q.14) Write a program to calculate the sum of right and left diagonal of a matrix.

Q.15) Write a program to print the following pattern:

```
        *
      *   *
    *   *   *
  *   *   *   *
*   *   *   *   *
```