

ASSESSMENT -I
COMPUTER APPLICATION (GRADE 10)

Maximum Marks: 80
Time allowed: Two hours

This paper is divided into two sections

Attempt all questions from Section A and any four question from Section B.
The intended marks for questions or parts of questions are given in brackets[].

SECTION A (Attempt all questions from this Section)

Q 1 Choose the correct answer and write the correct option.

[12]

- (i) Which of the following statement terminates the complete execution of a loop?
 (a) break (b) continue (c) terminate (d) System.exit(0)
- (ii) Which of the following loops is mostly used for fixed number of iterations?
 (a) For (b) do-while (c) while (d) none of the above
- (iii) do...while loop is an
(a) entry controlled loop (b) infinite loop (c) exit controlled loop (d) Finite loop
- (iv) The datatype which is specified that the method does not return a value is:
(a) Void (b) void (c) VOID (d) Boolean
- (v) Choose the access specifier
(a) 'a'
(b) ==
(c) { }
(d) Public
- (vi) The parameters appearing in function call statement are called
(a) actual parameters (b) formal parameters (c) call parameters (d) all the above
- (vii) The function that changes the state of its parameters is called
(a) pure function (b) impure function (c) change function (d) none of the above
- (viii) Which of these is a wrapper for data type int?
(a) Double (b) Integer (c) Integer (d) Int
- (ix) Which of the following is a valid wrapper class
(a) Float (b) Char (c) String (d) float
- (x) Which of the following does not represent a character literal?
(a) 'a'
(b) '1'
(c) '\a'
(d) "a"
- (xi) `ch += 2` is equivalent to
(a) `Ch = ch+2` (b) `Ch+2` (c) `ch = + 2` (d) none of the above
- (xii) Wrapping up of data and methods together as one unit is termed as:
(a) Inheritance (b) Polymorphism (c) Encapsulation (d) Abstraction

Q 2

- (i) Evaluate the following [2]
(a) `x = ++y + 2y` if `y = 6` (find the value of `x`)
(b) `s = ++j + 5` results into (value of `j` is 10, find the value of `s`)
- (ii) What will be output by the following lines [2]
(a) `System.out.println(Math.abs(-2.1));` (b) `System.out.println(Math.ceil(-5.1));`

(iii) Write the following as java expressions

[2]

(a) $\sqrt{a^2 + b^2}$

(b) $a = \frac{\sqrt{b^2 - 4ac}}{2a}$

(iv) What is the use of Math class of java library?

[2]

(v) What is the main difference between a while loop and a do..while loop?

[2]

(vi) Identify the statement listed below as assignment, increment, method invocation or object creation statements:

[2]

(a) System.out.println("Java");

(c) costPrice=457.50;

(b) Car hybrid = new car();

(d) petrolPrice++;

(vii) Differentiate between formal parameter and Actual parameter

[2]

(viii) Write the syntax to create an Byte object using Wrapper class

[2]

(ix) Write the variables used in the following program with datatype

[2]

```
public class TaxCalc {
    Public static void main(String[]args)
    {
        double income =1200000;
        double taxable =income-300000;
        double tax = taxable*0.15;
        System.out.print("For income of Rs"+ income+ "tax payable is Rs" +tax);
    }
}
```

(x) Identify and name the following tokens:

[2]

(a) public (b) 'a' (c) = (d) { }

SECTION B (Answer any four questions from this section)

The answer in this section should consist of the programs in either BlueJ environment or any. Program environment with java as the base. Each program should be written using variable description/mnemonic codes so that the logic of the Program is clearly depicted. Flowcharts and algorithms are not required.

Q 3

Write a program to calculate and print side of a room whose area is 196.25 sqm and is square in shape

[7]

Q 4

Write a program that computes the volume of a cylinder with a radius 5.75 cm and height as 15 cm. Use a constant for storing value of PI as 3.14159.(Note :- The volume of cylinder is $\pi r^2 h$)

[7]

Q5 Write a program to calculate average of number 123.5, 88.0,79.5.

[7]

Q 6 Write a program that divides two numbers 153 and 22 and displays the quotient and remainder.

Q 7

Write a program to calculate simple interest for any principal amount , with rate 7.2% and time as 3 years.

[7]

Q 8

A school conducts three exams namely term1 exams, term2 exams and final -term exams. final marks scored(weighted marks) are computed as 30% of term1 and term2 each's marks+40% of the final-term Marks. Write a program to compute the weighted marks for a student who scored 412 in first term,423 in second term and 430 in third term. Then compute the weighted percentage out of 500 marks.

[7]

Q 9 practical

[20]