

ASSESSMENT - I
COMPUTER APPLICATION (GRADE 9)

Maximum Marks: 100

Time allowed: Two hours

This paper is divided into two sections

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

Section A

(Answer all questions from this section)

Question 1

Choose the correct answer

[20]

- (i) Which package should be imported in a java program for obtaining system date and time?.
- (a) Java.I●
 - (b) Java.Date
 - (c) Java.util
 - (d) Java.Calendar
- (ii) Argument required for Math.random
- (a) one
 - (b) two
 - (c) requires no arguments
 - (d) none of these
- (iii) Method not returning any value has return type as
- (a) int
 - (b) char
 - (c) void
 - (d) float
- (iv) $ch = ch+2$ is equivalent to
- (a) $ch+2$
 - (b) $Ch = + 2$
 - (c) $ch +=2$
 - (d) None of these
- (v) Choose the odd one
- (a) class
 - (b) void
 - (c) true
 - (d) public
- (vi) Which keyword turns a variable declaration into constant declaration
- (a) const
 - (b) constant
 - (c) fixed
 - (d) final
- (vii) Wrapping up of characteristics and behaviour in one single unit
- (a) Inheritance
 - (b) Encapsulation
 - (c) Abstraction
 - (d) Polymorphism

- (viii) $N = k++ + 5$ results into (value of k is 15)
- (a) 20
 - (b) 02
 - (c) 19
 - (d) 21
- (ix) $(0 > 1) \parallel (1 > 0)$ is
- (a) 1
 - (b) 0
 - (c) false
 - (d) true
- (x) $a + 5 > 2 + b$ is equivalent to
- (a) $a + (5 > 2) + b$
 - (b) $((a + 5) > b) + 2$
 - (c) $(a + 5) < (2 + b)$
 - (d) None of the above
- (xi) The Math class is a part of which java library package.
- (a) Java.lang
 - (b) Java.random
 - (c) Java.io
 - (d) Java.util
- (xii) The expression which uses $> =$ operators is known as:
- (a) relational
 - (b) logical
 - (c) arithmetic
 - (d) assignment
- (xiii) Which of the following statements you should write to import only the Scanner class from java.util Package?
- (a) `import Scanner;`
 - (b) `import java.util.*;`
 - (c) `import java.util.Scanner;`
 - (d) `import package java.util.Scanner;`
- (xiv) The number of bytes occupied by int data type:
- (a) 2 bytes
 - (b) 1 byte
 - (c) 4 byte
 - (d) 8 byte
- (xv) Which of the following does not represent a character literal?
- (a) 'a'
 - (b) '1'
 - (c) '\a'
 - (d) "a"
- (xvi) The process by which a class acquires the properties from another class is called:
- (a) polymorphism
 - (b) inheritance
 - (c) abstraction
 - (d) object
- (xvii) Who developed java?
- (a) James Gosling
 - (b) Robert James
 - (c) Bjarne Stroustrup
 - (d) None of these

- (xviii) A class is also considered as an ___ factory.
(a) array
(b) string
(c) class
(d) object
- (xix) Reserved words are also called ____.
(a) identifier
(b) method
(c) keywords
(d) packages
- (xx) Which of the is not an integral data type in java?
(a) short
(b) long
(c) byte
(d) double

Question 2

[10]

- (i) Java applications are platform ____.
- (ii) $(6 == 3) \&\& (4 == 4)$ is
- (iii) The parameters appearing in method definition are called ____.
- (iv) What will be output by this code line?
`System.out.println(Math.abs(-4.4));`
- (v) Write the syntax to create an object in java program.
- (vi) An object is identified by its ____.
- (vii) Write any two Separators(punctuators) used in java.
- (viii) Name any two library packages.
- (ix) Write the names of any two Tokens used in java
- (x) What do you understand by variables?

Question 3

[10]

- (i) Write the following as java expressions
- (a) $\sqrt{a^2 + b^2}$
- (b) $a = \frac{\sqrt{b^2 - 4ac}}{2a}$
- (ii) Evaluate the following
- (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)
- (iii) Write the output of the following:-
- (a) `ceil(1.2)` (b) `floor(-6.8)` (c) `ceil(-6.8)` (d) `floor(1.2)`
- (iv) What will be the result of following two expressions if $i = 10$ initially?
- (a) `++i <= 10`
- (b) `i++ <= 10`

- (v) Write the Variables used and their data type in the following program

```
class Calc
{
    public static void main(String[] args)
    {
        int a,b,c;
        a=10;
        b=12;
        c=a+b;
        System.out.println("Sum=");
        System.out.println(c);
    }
}
```

Question 4

[10]

- (i) What will be the output of the following?
 - (a) `System.out.println(2+3+"Hello");`
 - (b) `System.out.println("Hello"+(2+3));`
- (ii) What do you understand by JVM?
- (iii) What is the difference between an object and a class?
- (iv) Write the number of bytes occupied by the following primitive datatypes:
 - (a) long
 - (b) double
 - (c) char
 - (d) float
- (v) Construct an expression that is equal to the absolute value of a variable. That is, if a variable x is positive, the value of the expression is just x , but if x is negative, the value of the expression is $-x$, which would be positive. Do it: using a conditional operator. (do not use the mathematical function here).

Section B

(Answer any 5 questions from this section)

Question 5

[50]

- (i) Write a program that computes tax for income of Rs 12,23,423. The income upto 3,00,000 is not taxable and the tax is computed as 15% of the taxable income.
- (ii) Write a program to calculate average of numbers 155.5, 80.0, 90.5.
- (iii) Write a program to calculate and print side of a room whose area is 625.0 sqm and is square in shape (using Math class)
- (iv) An athlete takes 18 rounds of a triangle park with sides as 25m, 35m and 45m. Write a program to determine the total distance covered by him.
- (v) Write a program to calculate the scholarship earned by Satvik who gets 750 per month for 5 years.
- (vi) Write a program to the cost of tilling a rectangular plot of land 500m long and 200m wide at the rate of Rs 80 per hundred sq m.
- (vii) Write a program to take your name as input from user through keyboard and display a greeting.