

ASSESSMENT -II
COMPUTER APPLICATIONS (GRADE 9)

Maximum Marks: 100

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)

Question 1

Choose the correct answer and write the correct option.

[20]

- (i) Name the feature of java depicted in the below picture.



Father



Child

- (a) Encapsulation
(b) Inheritance
(c) Abstraction
(d) Polymorphism
- (ii) _____ are mandatory parts of switch statement?
(a) break
(b) default
(c) println()
(d) case
- (iii) The Math class is part of which Java library package.
(a) Java.util
(b) java.io
(c) java.random
(d) java.lang
- (iv) Which package should be imported in a Java program for obtaining system date and time ?
(a) Java.IO
(b) java.Date
(c) java.util
(d) java.calendar
- (v) Size for double data type is ____
(a) 1 bit
(b) 8 bits
(c) 16 bits
(d) 64 bits
- (vi) The parameters appearing in method definition are called ____
(a) actual parameters
(b) formal parameters
(c) call parameters
(d) all the above

- (vii) User defined type conversion is known as
- (a) coercion
 - (b) type casting
 - (c) type promotion
 - (d) implicit conversion
- (viii) Unauthorized replication of software is known as
- (a) Hacking
 - (b) phishing
 - (c) soft copy
 - (d) piracy
- (ix) Wrapping up of data and methods together as one unit is termed as:
- (a) Inheritance
 - (b) Polymorphism
 - (c) Encapsulation
 - (d) Abstraction
- (x) 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
- (xi) Which of the following statement terminates the complete execution of a program?
- (a) break
 - (b) continue
 - (c) terminate
 - (d) System.exit(0)
- (xii) IPR expands to
- (a) Individual Property Rights
 - (b) Individual Performance Rights
 - (c) Intellectual Property Rights
 - (d) Intellectual Performance Rights
- (xiii) A continue statement in the body of outer loop of a nested loop structure will skip the current iteration of
- (a) Inner loop only
 - (b) Outer loop only
 - (c) Both loops
 - (d) None of these
- (xiv) What value will `Math.sqrt(Math.ceil(15.3))` return?
- (a) 16.0
 - (b) 16
 - (c) 4.0
 - (d) 5.0
- (xv) The code obtained after compilation is known as:
- (a) Source code
 - (b) Object code
 - (c) Machine code
 - (d) Java byte code
- (xvi) The access modifier that gives least accessibility is:
- (a) private
 - (b) public
 - (c) protected
 - (d) package
- (xvii) The keyword used to call package in the program:
- (a) extends
 - (b) exports
 - (c) import
 - (d) package

- (xviii) Missing a semicolon in a statement is what type of error?
(a) Logical
(b) Syntax
(c) Runtime
(d) No error
- (xix) Simple if...else statement can be alternatively represented through ___ operator.
(a) Iff
(b) ?:
(c) >
(d) !
- (xx) Assertion (A): In Java, statements written in lower case letter or upper case letter are treated as the same.
Reason (R): Java is a case sensitive language.
- (a) Both Assertion (A) and Reason (R) are true and Reason (R) is a correct explanation of Assertion (A)
(b) Both Assertion (A) and Reason (R) are true and Reason (R) is not a correct explanation of Assertion (A)
(c) Assertion (A) is true and Reason (R) is false
(d) Assertion (A) is false and Reason (R) is true

Question 2

- (i) Write the syntax of for and while loop. [2]
- (ii) How many times will the following code print "Welcome to Java" [2]
- (a)

```
int count = 1;
while(++count < 10) {
    System.out.println((count+1) + "Welcome to Java");
}
```
- (b)

```
int count=0;
do{
    System.out.println("Welcome to java");
}while(++count<10);
```
- (iii) Which elements are needed to control loop? [2]
- (iv) What will be the output of the following statements [2]
- (a) The output of `Math.round(6.6) + Math.ceil(3.4)`
(b) `System.out.println("Hello" + (7+3));`
- (v) Do as directed:- [2]
- (a) Write the return type of `cbrt` and `pow` function
(b) Write the number of arguments required for `abs` and `max` function.
- (vi) Write the output for the following:- [2]
- (a) `Ceil(-7.8)`
(b) `floor(0.5)`
- (vii) Write loops for the following:- [2]
- (a) An exit controlled loop
(b) loop used for fixed number of iterations

(viii) Write the following as java expressions

[2]

(a) $a = \frac{\sqrt{x^2 - 2ab}}{2a}$

(b) $\pi r^2 + \pi r^3$

(ix) Write the output of the following

[2]

(a) $(1 > 0) \&\& (0 > 1)$ is

(b) $(0 > 1) \|\| (0 == 1)$ is

(x) Consider the following code snippet:

[2]

```
int i = 10;
```

```
int n = i++ % 5;
```

What are the values of i and n after the code is executed?

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.

Question 3

Write a java program to print table of a given number.

[10]

Question 4

Write a program that inputs radius of circle and finds its perimeter using Scanner class.

[10]

Question 5

Write a program that reads an integer and tests whether it is a perfect square (of an integer) or not.

[10]

Question 6

Write a program that calculates the sum of first 100 natural numbers and prints their sum using while Loop.

[10]

Question 7

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.

[10]

Question 8

Write a program to cost of tiling a rectangular plot of land 500 m long and 200 m wide at the rate of Rs 80 per hundred sq m.

[10]

Question 9 practical

[20]