GREENLAWNS SCHOOL,
PRILIMINARY EXAMINATION 2025-26
COMPUTER APPLICATION

STD : X

Date :-

MARKS : 100

TIME : 2 Hrs

Answer to this paper must be written on the paper provided separately. You will not be allowed to write during the first 15 minutes. This time is to be spent in reading the question paper. The time given at the head of the paper is the time allowed for writing the answers.

This paper is divided in to two Sections. Attempt all questions in Section A and any four questions from Section B. The intended marks for the questions or parts thereof are given in brackets([ ]).
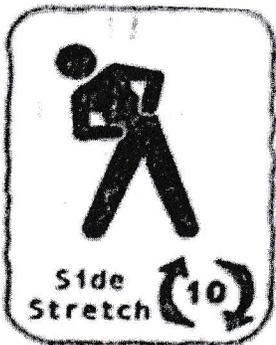
Section A (40 marks)

(Attempt all questions)

Question 1:

[20]

1) A physical education teacher asks the students to do the side stretch as shown below, 10 times. Which programming construct the teacher uses?

(a) If
(b) (b) switch
(c) For
(d) if else if

2) "Java compiled code (byte code) can run on all operating systems"
— Name the feature.

a. Robust and Secure
b. Object Oriented
c. Platform Independent
d. Multithreaded

3) Return data type of isLetter(char) is ....

a. Boolean
b. boolean

c. bool

d. char

4) Method that converts a character to uppercase is ....

a. toUpper()
b. ToUpperCase()
c. toUppercase()
d. toUpperCase(char)

5) The expression which uses >= operator is known as:

a. relational
b. logical
c. arithmetic
d. assignment

6) A method that does not return a value has a .... return type.

a. double
b. class
c. float
d. void

7) Which of the following loop executes at least once?

a. while
b. for
c. do-while
d. None of these

8) An object belonging to a particular class is known as a/an .... of that class.

a. Interface
b. Instance
c. Alias
d. Member

9) What is the full form of JVM?

a. Java Visual Monitor
b. Java Video Monitor
c. Java Virtual Monitor

d. Java Virtual Machine

10) Which of the following is not a token?

    a. Keyword
    b. Identifier
    c. Operator
    d. Procedure

11) A member method having the same name as that of the class is called ....

    a. an alias
    b. a friendly method
    c. a constructor
    d. a protected method

12) Which of the following is a composite data type?

    a. int
    b. float
    c. char
    d. String

13) The trim() method of the String class removes ....

    a. leading spaces only
    b. trailing spaces only
    c. spaces in between words
    d. leading and trailing spaces

14) The index of a string ....

    a. ranges from 0 to the length -1 of the string
    b. ranges from 0 to the length of the string
    c. ranges from 1 to the length of the string
    d. ranges from 1 to the length -1 of the string

15) Output of the following statement is ....

System.out.println("SUNDAY".substring(3));;

    a. NDA
    b. DAY
    c. SUN

d. N

16) Character class methods are found in the package called:
   (a) java.util
   (b) java.lang
   (c) java.awt
   (d) java.io

17) Select the infinite loop:
   (a) for(int i = 1; i <= 10; i++)
   (b) for(int i = 2; i != 0; i -= 3)
   (c) for(int i = 5; i <= 5; i++)
   (d) for(int i = 1; i >= 1; i --)

18) The output of Math.max(-7, Math.min(-5, -4)) is:
   (a) -5
   (b) -4
   (c) -7
   (d) error

19) A constructor has .... return type.

   a. a void
   b. more than one
   c. String[ ] args
   d. no

20) Which of the following statement causes ⸱⸱⸱⸱⸱⸱⸱ termination of the loop?

   a. continue
   b. jump
   c. break
   d. All of above

Question 2:

i.   Convert the given loop into exit controlled loop.   [2]

   int a,b;
                          a=
   for (a=10, b=1; a>=1; a–2)
                      ∧
   {   b+= a; b++;

   }

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System.out.print(b);

ii. What is the difference between the Scanner class functions next() and nextLine()? [2]

iii. Difference between the length and length( ) functions [2]

iv. Difference between equals( ) and equalsIgnoreCase( ) [2]

v. Name the following:

    1. A keyword used to call a package in the program. [2]

    2. Any one reference data type. [2]

vi. Evaluate the following:- [2]
    int x=2,y=7,z=3;
    int ans= x++ +--y+y+ ++z

vii. Difference between equals( ) and equalsIgnoreCase( ) [2]

viii. Write down java expression for: [2]

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

ix. What is fall through? [2]

x. Rewrite the following using ternary operator: [2]
    if (x % 2 == 0)
    System.out.print("EVEN");
    else
    System.out.print("ODD");

Section– B (60 marks)

(Attempt any four questions from this section. The answers in this section should consist of the program in Blue J environment with java.)NOTE variable description is required

Question 3: [15]

Define a class Library having the following description

data members

String name :   to store the name of the book

int price   to store the price of book

int day   to store the number of days for which the fine has to be paid.

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Member function

void input() : to input the name of book, price and the number of days   void
calculatefine() : to calculate the fine

void display() : Display the details and fine .

Write a program to compute the fine according to the given conditions and display the fine to be paid .

Days	Fine
First seven days	25 paise per day
Eight to fifteen days	40 paise per day
Sixteen to thirty days	60 paise per day

Question 4:

Write a program to accept a string. Convert the string into upper case letters. [15]

Count and output the number of double letter sequences that exist in the string.
Sample Input: "SHE WAS FEEDING THE LITTLE RABBIT WITH AN APPLE"
Sample Output: 4

Question 5:

Write the following patern: [15]

(a)

```
*
* #
* # *
* # * #
* # * # *
```

Question 6:
                                                              [15]
Write a program to input 10 integer elements in an array and sort them in descending order using bubble sort technique.

Question 7:
                                                              [15]
Design a class to overload a function check( ) as follows:

1. void check (String str , String str1) — find whether both string is same or not.

2. void check(char ch , char ch1) — find whether both character is same or not

Question 8:

[15]

Define a class doubleArray to accept values into 3 x 3 array and find the sum of both diagonal separate.

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