

**GREENLAWNS HIGH SCHOOL
FINAL EXAMINATION FOR THE YEAR 2020**

**STD. : IX
SUBJECT : COMPUTER APPLICATIONS**

**TIME : 2 HOURS.
MARKS : 100**

Answers to this paper must be written on the paper provided separately. The time given at the head of this paper is the time allowed for writing the answers. This paper is divided into two Sections. You are to answer *all* questions from Section A and any *four* questions from Section B.

Section A(40 Marks)

(Attempt *all* questions from this Section.)

While answering all questions from this part, indicate briefly the working and reasoning wherever required.

Q1.

- a. How many values a function returns? [2]
- b. What do you mean by function overloading? Explain with the help of an example. [2]
- c. Differentiate between compile time and run time errors. [2]
- d. State the purpose of next() and nextCharAt(0) methods. [2]
- e) The Scanner class belongs to _____ package. [1]
- f) The mathematical methods are contained in _____ class. [1]

Q2.

- a. Write equivalent Java expression for $|m|+|y|$ [2]
- b. State the number of bytes occupied by char and int data types. [2]
- c. A keyword used to call a package in the program. [2]
- d. Write one difference between / and % operator. [2]
- e. Convert the following segment into an equivalent do loop: [2]

```
int x,c;  
for(x=10,c=20;c>=10;c=c-2)  
x++;
```

Q3.

- a. What is Netiquette? [2]
- b. Explain Cyber Terrorism. [2]
- c. Define encryption. [2]
- d. What is plagiarism? [2]
- e. Define software ethics? [2]

- Q4.
- What is the difference between 34L and 34? [2]
 - Define Java token. Also, name its types. [2]
 - Name any two OOP Principles. [2]
 - if $m=5$ and $n=2$ output the values of m and n after execution in (i) and (ii) [2]
 - $m-=n$;
 - $n=m+m/n$;
 - State one similarity and one difference between while and do while loop. [2]

SECTION B

Each program should be written in such a way that it clearly depicts the logic of the problem. This should be achieved by using mnemonic names and comments in the program.

(attempt any four) (4 X 15 marks)

- Q5. Write a program to input an integer and find the sum of its digits. [15]
- Q6. Write a program to input an integer and check whether it is a three digit number or not. [15]
- Q7. Write a program to input the price of a product(in decimals) and quantity purchased(in integer). Calculate the total cost and discount on total cost as per the given criteria. [15]

Total Cost	Discount
More than ₹ 25000.00	11.0%
₹ 15000.00 to ₹ 25000.00	8.0%
₹ 3000.00 to ₹ 14999.00	6.0%
Otherwise	3.0%

Also calculate the net amount to be paid(less discount). Print the price, quantity, total cost, discount and net amount to be paid.

- Q8. Write a program to accept an integer number 'N'. Check and print whether the number is a Neon number or not. [15]
 If sum of digit of square of the number is equal to the original number then the number is Neon.
 (for eg. if $N=9$, its square = $9^2=81$, its sum of digits= $8+1=9$, so 9 is a Neon number.
- Q9. Write a program to input a number 'n' and print all the factors/divisors of 'n'. [15]
- Q10. Write a program to display the following series: [15]
 1 -2 3 -4 5 -6 7 -8upto n terms.