

GREENLAWNS HIGH SCHOOL
TERMINAL EXAMINATION YEAR 2021-2022

SUB : COMPUTER APPLICATION
STD X

MARKS : 40
TIME : 1 HOUR

Answers to this Paper must be written on the composition sheet.

You will not be allowed to write during the first 10 minutes.

This time is to be spent in reading the question paper.

The time given at the head of this paper is the time allowed for writing the answers.

This paper is divided into two Sections.

Attempt all questions from Section A and any two questions from
Section B.

The intended marks for questions or parts of questions are given in
brackets[]

SECTION A(10 MARKS)

Attempt all questions

Question 1.

- a. Name the operator which works on 3 operands. [1]
- b. Name the two access specifiers used for a class. [1]
- c. Write a function prototype of the following:
A function PosChar, which takes a string argument and a character argument and returns an integer value [1]
- d. State the difference between static and non-static functions. [1]
- e. State the difference between function and constructor. [1]

Question 2.

- a. Write the Java expression for $\sqrt[3]{a} + \sqrt[3]{b}$ [1]
- b. What is entry-controlled loop? [1]
- c. Name two jump statements and their use. [2]
- d. Define Package. [1]

SECTION B(30 MARKS)

(Attempt any two questions)

Question 3.

WAP to input a number and check and print whether it is a Pronic number or not. (Pronic number is the number which is the product of two consecutive integers.) [15]

Question 4.

Define a class Student described as below: [15]

Data Members: name, age, m1, m2, m3(marks in 3 subjects), maximum, average.

Member Methods:

- i. To accept the details of a student
- ii. To compute the average and the maximum out of three marks.
- iii. To display the name, age, marks in three subjects, maximum and average.

Write a main method to create an object of a class and call the above member methods.

Question 5.

Define a class PhoneBill with the following descriptions: [15]

Data Members:

customerName (char type), phoneNumber (long type),

no_of_units (int type), rent (int type), amount (float type).

Member Functions:

- i. calculate() To calculate the value of amount as rent+cost for the units.

where cost can be calculated accordingly:

No of units	Cost
First 50 calls	Free
Next 100 calls	0.80 @ unit
Next 200 calls	1.00 @ unit
Remaining calls	1.20 @ unit

ii. A constructor to assign initial values of customerName as "Raju", phoneNumber as 259461, no_of_units as 50, rent as 100, amount as 100.

iii. A function accept() which allows users to enter customerName, phoneNumber, no_of_units, rent and should call function calculate().

iv. A function Display() to display the values of all the data members on the screen.