GREENLAWNS HIGH SCHOOL
TERMINAL EXAMINATION YEAR 2019-20

SUBJECT : PHYSICS PRATICAL **CLASS : X**
TIME : 1 HOUR **MARKS : 20**

Note: You will not be allowed to write during the first ten minutes. This time is to be spent in reading the question paper and checking your apparatus. The time given at the head of this paper is the time allowed for performing the experiment, doing calculation and writing your conclusion. Written work and the experiment has to be done on the papers provided separately.
Write only the Aim, observation & conclusion. Plot a graph on the graph paper.

Aim – To study the variation of the angle of deviation of a ray of light passing through a prism with angle of incidence.

Apparatus – Prism, pins, plane sheets of white paper, drawing board, ruler, protractor
Procedure-

1) Fix a sheet of white paper on the drawing board with the help of drawing pins.
2) Place the glass prism on the sheet of paper so that its refracting surface is vertical. Draw the boundary of the prism ABC. Now remove it.
3) Draw a normal NFN^1 to side AB at point F and draw EF making an angle of 30° to the normal. So seg EF will act as an incident ray Fix pins P_1 &Q_1 on seg. EF & replace the glass prism to its original position.
4) See through other refracting surface of the prism and fix pins P_2 & Q_2 such that the images of pins P_1 & Q_1 & the pins P_2 & Q_2 are in a straight line.
5) Mark the position of each pin & then remove the prism as well as the pins.
6) Join the points P_2 & Q_2 and produce it to meet the side AC at point G. Label it as GH.
7) Draw a normal MGM^1 to AC at point G.
8) Now produce EF & GH. Which meet at point J.
9) Measure the angle of deviation (δ)
10) Repeat the steps 1 to 9 by taking different values of angle of incidence (i) between 30° to 60° at intervals of about 5°
11) Plot a graph of angle of incidence with angle of deviation.
    Find – a) the minimum angle of deviation (δ_m) b) Relation between the angle of incidence (i) & angle of deviation (δ)
12) Write your observations as ---

Angle of incidence (i)	Angle of deviation (δ)
30°	
35° & so on	

13) Plot a graph and write your conclusion.