

**GEE4812 ASSIGNMENT 3:**

**Due 24<sup>th</sup> August, 2021 @23:59hrs.**

**Late Submissions attract loss of marks.**

**Copying attracts loss of marks by sharing the average mark obtained.**

**ALL SUBMISSIONS SHOULD BE IN PDF VIA MOODLE. ANY OTHER FORMAT  
WILL NOT BE MARKED.**

**Question 1 [10 marks]**

Calculate the reduced level at point B given the following data:

- Point A (RL) = 1350m
- Distance AB = 65m
- Slope = - 1/20

**Question 2 [40 marks]**

Agriculture Engineering students were tasked with the laying out of the water line from the Goma lakes to their new green house structure. They then decided to collaborate with the rest of the B.Eng. students and share ideas on how best they could execute this task. They finally carried out a precise levelling with a digital level machine to determine the elevations of the proposed route for the purpose of designing the layout and the slope. The following readings were obtained at intervals of 20m.

2.375, 1.730, 0.615, 3.450, 2.835, 2.070, 1.835, 0.985, 0.435, 1.630, 2.255 and 3.630 m.

Meanwhile the instrument was shifted after the 4<sup>th</sup> (fourth) and 8<sup>th</sup> (eighth) readings. The last reading taken on a BM of RL 110.200m. Find the RLs of all points.