SOIL ANALYSIS COURSE - SHEDULE

S.No	Name Of The Topic	Alloted Hours
1.	UNIT–1 Importance of soil testing and analysis	3 hours
2.	UNIT-2 Sample collection and processing	5 hours
3.	UNIT-3 Study of instruments	5 hours
4.	UNIT-4 Study of laboratory setup	5 hours
5.	UNIT-5 Soil testing methods	12 hours
	Total	30 hours

9-2020

Name: Issac Abraham

Soil Testing Analysis

Sed: 913

22/25

1) PH measurement :-

Instrument :- pH is measured commonly by using glass electrode pH meter with calomel reference electrode. Most digital pH meters have single electrode assembly. The instrument being a potentiometer the pH scale has to be calibrated before use with buffer solutions of known pH values.

2) Determination of organic carbon.

Reagents :-

- 1.0N potassium dichromate (122.5gms $K_2Cr_2O_7$, dissolved in one litre flask).

procedure :-

one gram of the soil sample is taken in a test tube, to this 2ml of 1N $K_2Cr_2O_7$ and 2ml of conc. H_2SO_4 is added and shaken well. this is kept for about 30 minutes and allowed for complete oxidation of the sample. Then 5ml of distilled water is added and the colour developed is noted as Ly, Y, O

OG, DBG,

3) Estimation of Nitrogen

- Measure 5cc of soil in the soil measuring tube and

transfer into 100ml conical flask.

- Add 25ml of nitrogen reagent Add a pinch of decolourizer into the soil mixture and again mix well. the filter into the colour developing bottle. by using a funnel and filter paper.

4). Estimation of phosphorous

Test method:-

- Measure 5ml of soil in the soil measuring tube and transfer into 100ml Conical flask
- Add 25ml of phosphorous reagent into the soil and shake for 5-10min. Add a pinch of decolourizer into the soil mixture and again mix well. then filter into the colour filter paper.

5). Estimation of potassium

Test method:-

- Measure 5ml of the soil in the soil measuring tube and transfer into 100ml conical flask.
- Add 25ml of potassium reagent into the soil and shake for 5-10min. Add a pinch decolourizer into the the soil mixture and again mix well. then filter into the colour developing bottle by using a funnel and filter paper.
- To the clear filtrate, add two drops of potassium reagent and mix well. wait 10 minutes for colour to develop. the colour that formed is compared with phosphorous colour chart.