EXPERIMENT 3

Studying the pH and water holding capacity of different soil samples:

AIM: To study the pH and water holding capacity of different soil samples

REQUIRED: Soil samples, measuring cylinders, funnel, filter paper and pH indicator.

PROCEDURE:

- Take two funnels and line them with filter paper.
- Put these funnels in a measuring cylinder
- Put the two soil samples in separate funnels
- The weight of soil sample should be same in both (25g)
- Pour equal amount of water in both funnels (25ml)
- Let the water drip in the cylinder
- Note the volume of water collected
- Test the two samples with pH indicator and note the observations.

OBSERVATIONS:

The volume of water collected in cylinder of sample A was more than sample B

CALCULATIONS: The volume of water retained = Volume of H_2O collected in cylinder.

$$\text{Water holding capacity} = \frac{\text{Volume of } H_2O \text{ retained}}{\text{Volume of } H_2O \text{ passed}} \times 100$$

CONCLUSION:

Soil sample A is roadside soil and sample B is garden soil at sample B has more water holding capacity.

PRECAUTIONS:

- Water should be poured slowly
- The measuring cylinder should be properly calibrated.