

**M.SC IIIrd SEM EXAM 2021-22**

**Subject: Chemistry**

**Paper code: MCH-C302**

**Paper Name: Analysis of Soil**

**Time: 3 Hours**

**Max.Marks: 70**

**Min Pass: 40 %**

**Note: Question paper is divided in to two sections A and B. Attempt all sections as per instructions.**

**Sec-A**

**(Short answer Type Question)**

**Note: Answer any five question in about 150 words each. Each question carries six marks.**

Q.1: What do you understand by soil solid? Give the factor affecting the soil solution.

Q.2: What is the difference between primary and secondary minerals presents in soil.

Q.3: Give the analysis of soil sample for the total alkalinity.

Q.4: Give the analysis of soil sample for the Chlorides.

Q.5: What is the roll of pH in agriculture soil and how will you determine.

Q.6: Give the analysis of soil samples for the porous nature.

Q.7: Write short notes on. Humic Acids, Fulvic Acids and Humins.

Q.8: Give the analysis of soil samples for the Water absorbing capacity.

Q.9: What is the important of moisture content in soil and how will you determine.

Q.10: Give the analysis of soil sample for the Sulphates.

**Sec-B**

**(Long Answer Type Questions)**

**Note: Answer any four questions in detail. Each question carries ten marks.**

Q.11: Give the elementary idea of Chemical analysis as a measure of soil fertility.

Q.12: Give the Factors affecting the composition and concentrations of the salts in the soils.

Q.13: Give the determination of total organic matter (Walkley and Black method) in soil sample.

Q.14: Determination of exchangeable Hydrogen and Lime requirement of agriculture soil.

Q.15: Discuss the soil sampling, Handling, transport and storage of soil sample.

Q.16: Give the determination of Gypsum requirement and water soluble salt in saline and alkaline soil.

Q.17: Give the determination of exchangeable sodium and potassium in soil sample.

Q.18: Give the determination of nitrogen by Kjeldahl digestion method in soil sample.