MCC/21/M.Sc./Sem.-III/AGR/A

PG

M.Sc. Semester-III Examination, 2022

(Agriculture) in Agronomy PAPER: ACSS-301 (Theory)

(MANAGEMENT OF PROBLEM SOILS)

Time: 2 Hours

Full Marks: 50

GROUP-A

1. Answer any FIVE questions from the following:

2X5 = 10

RORE CIT

- a. What do you understand by problem soils?
- b. Name the different types of problematic soils.
- c. Which type of salts are dominated in saline soils?
- d. Which parameter will help us to determine that the soil is saline? Also write the value for same.
- e. Which nutrient toxicity is more in sodic soil?
- f. Differ alkaline soil and alkali soil.
- g. Which environmental condition will help to form saline soil?
- h. Discuss the buffering capacity of soil.

GROUP-B

2. Answer any FOUR questions from the following:

5X4 = 20

- a. Write the distribution of acid soils in India.
- b. Discuss how liming material reclaim acid soils?
- c. "Saline soil is also called white alkali"- Explain.
- d. Why gypsum is not considered as liming material in acid soil?
- e. Discuss any four beneficial effects of liming.
- f. Enlist any four characters in acid soils.
- g. "Saline soils have poor water absorption" Explain.
- h. Give an example of acidic salt formation with reaction.

GROUP-C

3. Answer any TWO questions from the following:

10X2 = 20

a. Discuss the causes of acidity in soil.

10

b. Explain the problems in acid soils. Discuss the principle of liming reaction in acid soil.

10

c. "Alkali soil has very poor physical condition"- Explain.

10

d. Differentiate between saline, alkali and saline -alkali soil. Discuss the biological reclamation process in saline soil.

4+6

e. Discuss the reclamation of sodic soil.

10