**Problematic soils and Their Management [ASAC3103]**

**Section-A: Short Answer Questions**

1. Define SAR.
2. Define Exchangeable sodium percentage.
3. Define organic soil.
4. Explain the benefits of liming.
5. Explain the microbial activity in acid soil.
6. Explain the role of aluminum in soil acidity.
7. Why acid soils are infertile?
8. Write down about the criteria for evaluation of irrigation water.
9. Explain the type of problematic soil.
10. Define lime requirement.
11. Define waste land.
12. Write down about different types of waste land.
13. Write down about characteristics of saline soil.
14. Write down about characteristics of Alkali soil(sodic soil).
15. Write down about characteristics of saline-alkali soil.
16. Write down about characteristics of degraded alkali soil.
17. Write down about characteristics of Calcareous soil.
18. Explain the management of calcareous soil.
19. Difference between soil quality and soil health.
20. Explain the management of acid sulphate soil

**Section-B: Long Answer Questions**

1. Explain different different forms of soil acidity. Discuss the impact, causes, effect and management of soil acidity.
2. Discuss the strategies of increasing crop production and productivity in problem soils.
3. Discuss the sources and chemistry of salinity and alkalinity and physical and chemical reclamation of these soils.
4. Reveal the standard qualities of irrigation water. Discuss the prospect of saline water to be used in agriculture. Explain why the plants grown in saline soils appear water-stressed.
5. Difference between saline, alkaline and saline-alkaline soil.
6. Define land capability. Describe the classification of land capability based on suitability.