

(Reaccredited with Grade 'B' by NAAC)

Madurai – 625 022.

B.Sc., Chemistry–Summative Examinations – APRIL 2024

Code: **LUCHSE21****Semester: II**

AGRICULTURAL CHEMISTRY

Duration: 2 Hrs.

Max: 50 Marks

SECTION – A

$$5 \times 1 = 5$$

Answer ALL questions. Choose the correct answer. (K2 Level)

- The natural three dimensional body having various uses is called _____
 - Soil
 - Water
 - Atmosphere
 - None of these
- The two ions responsible for the acidity of soil are
 - Mg^{2+} & Ca^{2+}
 - Al^{3+} & H^{+}
 - Zn^{2+} & K^{+}
 - Fe^{2+} & Cu^{2+}
- Identify the irrigation method, in which evaporation of water is minimum.
 - Sprinkler
 - Drip
 - Surface
 - Gun
- Which is a constituent of several oxidizing enzymes such as polyphenol oxidase and ascorbic acid oxidase?
 - Zn
 - Cu
 - Mo
 - Ca
- BHC cannot be prepared by chlorination of
 - Cyclohexane
 - cyclohexene
 - benzene
 - cycloheptane

II. Fill in the blanks (K1 Level)**5 x 1 = 5**

6. Alluvial soils are transported by _____
7. Soil with spherical shape and has a size range of 5-50mm is called _____
8. The measure of the combined content of organic and inorganic substances contained in a liquid is called _____
9. The growth of buds and tips diminish due to the deficiency of _____ metal.
10. _____ give out poisonous vapours and kill insects.

SECTION-B
Answer all the questions.**5 x 2 = 10**

11. What is Cation exchange capacity?(K2)
12. What is meant by soil buffering?(K2)
13. Give the uses of irrigation.(K3)
14. List out the advantages of Organic fertilizer.(K4)
15. How effectively systemic pesticide control pest?(K5/K6)

SECTION-C
Answer any THREE questions in about 4 pages each.**3 x 10 = 30**

16. Explain the important characteristics of soil colour and soil texture.(K1)
17. Give an account on the importance of C-N ratio in soil fertility.(K2)
18. Illustrate the characteristics of surface and underground water.(K3)

19. Account on the following,

i) urea ii) Fertilizer industry in India.(K4)

20. Write notes on Arsenic and Organic mercuric compounds. (K5/K6)