

QP CODE: 24000652



Reg No Name

# B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS, MARCH 2024 Sixth Semester

## CHOICE BASED CORE COURSE - CH6CBT03 - SOIL AND AGRICULTURAL CHEMISTRY

Common for B.Sc Chemistry Model I, B.Sc Chemistry Model II Industrial Chemistry & B.Sc Chemistry Model III

Petrochemicals

2017 Admission Onwards

E842B18F

Time: 3 Hours

Max. Marks: 80

#### Part A

Answer any ten questions.

Each question carries 2 marks.

- Name three type of rock systems in formation of soil.
- Is water a mechanical weathering agent? Justify.
- 3. Write the charecteristics of any two soil groups in kerala.
- 4. Define the term soil texture.
- 5. Define buffering capacity.
- 6. Write any four factors that results in the formation of problem soil.
- 7. Write any two reclamation methods of acidic soil.
- 8. How is pottasium deficiency treated in plants?
- 9. Write any two methods for determining nutrient needs
- 10. What are straight fertilizers? Give examples
- 11. What are biofertilizers and how are they classified?
- 12. What are fungicides ? Give examples for sulphur fungicides.

 $(10 \times 2 = 20)$ 

### Part B

Answer any six questions.

Each question carries 5 marks.

- 13. Explain the soilid, liquid and gaseous phase of soil.
- 14. Write a note on 'soil structure'.
- 15. Explain the ion exchange reactions of soil that affects nutrient availability,microbial activity and plant growth.
- 16. Write a note on factors affecting soil fertility.



- 17. Write a note on role of secondary nutrient in plant growth
- 18. Write a note on micro nutrient fertilizers
- 19. Describe the efficient usage of various fertilizers
- 20. Explain the charecteristics of pesticides.
- 21. Give a note on Chloro compounds as herbicides.

 $(6 \times 5 = 30)$ 

#### Part C

Answer any **two** questions.

Each question carries **15** marks.

- 22. What do you mean by soil testing? Explain various steps involved in testing process.
- 23. Explain (a)various factors affecting nutrient absorption (b) the deficiency symptoms of nutrient absorption.
- 24. Explain the properties ,uses and relative efficiency of liquid fertilizers.
- 25. Write a note on impact of pesticides on plants, soil and environment.

 $(2 \times 15 = 30)$