23105187

QP CODE: 23105187

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS, MARCH 2023

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

780DB8FC

Time: 3 Hours

Max. Marks : 80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. Name three type of rock systems in formation of soil.
2. Which are the major factors that affect the formation of soil?
3. What is soil mapping?
4. Differentiate bulk and particle density of soil.
5. Define buffering capacity.
6. Name three type of problem soil.
7. What is saline soil? Give any one cause of saline soil.
8. Give any two sources of pottasium obtained by plants naturally.
9. How is pottasium deficiency treated in plants?
10. Write any two methods for determining nutrient needs.
11. What is the role of azolla in agriculture?
12. Give any two impacts of pesticides on soil.

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Explain the solid, liquid and gaseous phase of soil.

14. Explain the role of soil temperature and soil air in plant growth.

15. Explain the ion exchange reactions of soil that affects nutrient availability, microbial activity and plant growth.

16. How soil organic matter enriches the soil fertility?

17. Describe the uses of liquid fertilizers.

18. Explain mixed fertilizers.

19. Describe the efficient usage of various fertilizers.

20. What are the important safety measures that we have to take while dealing with pesticides?

21. Describe about mercury fungicides.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. Discuss the followings a) Microbes in pest and disease management b) Bio conversion of agricultural wastes

23. Explain (a) Various factors affecting nutrient absorption. (b) The deficiency symptoms of nutrient absorption.

24. Explain the following (a) NPK fertilizers (b) straight fertilizers (c) complex fertilizers

25. Explain nitrocompounds, propionic acid derivatives and boron compounds as herbicides.

(2×15=30)