



End Semester/Reappear (Semester V) Examination December 2022

Programme: B. Sc. (Hons.) Agriculture

Subject: Manures, Fertilizers and Soil Fertility Management

Subject Code: 13A.312

Enrolment no. _____

Full Marks: 50

Time: 2 Hrs.

Section I

1. Short Answer type questions. Answer any four.

4 x 5 = 20

- a. Explain how use of chemical preservatives reduce nutrients losses during handling and storage of FYM.
- b. What are sources of nitrogen to crop? Classify nitrogenous fertilizer with examples and mention nutrient content in them.
- c. Discuss criteria of essentiality of nutrient to plants. Make a chart of different groups of plant essential nutrient.
- d. Compare rapid tissue and DRIS method of soil fertility evaluation.
- e. Tabulate critical level of plant essential nutrients in plant and soil.
- f. Define green manuring. Differentiate between in-situ and ex-situ green manuring with suitable examples.

Section II

Long answer type questions. Answer any two.

2 x 15 = 30

2. Explain the role of Organic Manure in improving the properties of soil. Mention the role of C: N ratio in mineralization of nutrient from organic sources.
3. Describe the principles governing fertilizer application in soil.
4. Discuss the mechanisms of nutrient transport to plants from soil. What are the factors affecting the process of nutrient transport in soil?
5. Describe biological method of evaluating soil fertility.
