

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END THEORY EXAMINATION

B.Sc.(Hons.) Horticulture

Semester	: II (New)	Term	: Second	Academic Year	: 2021-22
Course No.	: H/SSAC 122	Title	: Soil Fertility and Nutrient Management		
Credits	: 2 (1+1)				
Day & Date	: Wednesday, 21.09.2022	Time	: 9:00 to 11:00 hrs	Total Marks	: 40

- Note :**
1. Solve ANY EIGHT questions from SECTION 'A'.
 2. All questions from SECTION 'B' are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagram wherever necessary.

SECTION 'A'

- Q.1 Define soil fertility evaluation. State the methods of soil fertility evaluation.
- Q.2 What are organic measures? Classify the bulky and concentrated organic manures along with suitable measures.
- Q.3 Define essential plant nutrients and classify the essential plant nutrients.
- Q.4 What is luxury consumption? Explain consumption of nitrogen by plants.
- Q.5 Enlist the problematic soils. Give the characteristics of saline, saline-sodic and sodic soils.
- Q.6 Define fertilizer. Classify the nitrogenous fertilizers with examples.
- Q.7 Define Integrated Plant Nutrient Management System. What are the components of IPNMS?
- Q.8 Explain the concept of Soil Test Crop Response and Targeted yield.
- Q.9 Define biofertilizers. Enlist different types of biofertilizers.
- Q.10 Write short notes on (Any Two):
- a) Importance of C:N ratio
 - b) Importance of pH in plant nutrition
 - c) Fertilizer use efficiency

SECTION 'B'

- Q.11 Fill in the blanks:
- 1) Physical mixtures of two or more straight fertilizers are called _____ type fertilizers.
 - 2) According to Fick's Law, the rate of _____ is proportional to the concentration gradients.
 - 3) Gypsum amendment is used for reclamation of _____ soils.
 - 4) C:N ratio of sawdust is _____.
- Q.12 Match the pairs:
- | | |
|---|--------------------------------------|
| 'A' | 'B' |
| 1) Single super phosphate | a) Arnon and Stout |
| 2) Criteria for essentiality of element | b) Mo deficiency |
| 3) Feldspar | c) 16% P ₂ O ₅ |
| 4) Whiptail in cauliflower | d) High potassium content |

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