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**BRAINWARE UNIVERSITY**

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398, Ramkrishnapur Road, Barasat
Kolkata, West Bengal-700125

Term End Examination 2025-2026**Programme – M.Sc.(AG)-Agronomy-2025****Course Name – Principles and Practices of Soil Fertility and Nutrient Management****Course Code - AGRON502(T)****(Semester II)****Full Marks : 40****Time : 2:0 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 10=10

1. Choose the correct alternative from the following :

- (i) What is the another name of Potassium chloride?
 - a) SOP
 - b) MOP
 - c) SSP
 - d) DAP
- (ii) Which one is an explosive nitrogenous fertilizer?
 - a) CAN
 - b) $(\text{NH}_4)_2\text{SO}_4$
 - c) NH_3
 - d) NH_4NO_3
- (iii) Tell the name of biofertilizer which fix nitrogen in symbiosis with legume crop.
 - a) Rhizobium
 - b) Bacillus
 - c) Frankia
 - d) Pseudomonas
- (iv) Select the edible oil cake having highest percentage of nitrogen content.
 - a) Groundnut
 - b) Mustard
 - c) Linseed
 - d) Sesame
- (v) How much is the nitrogen content of DAP (in percentage)?
 - a) 15
 - b) 16
 - c) 18
 - d) 20
- (vi) Choose the nutrient element which is involved in stomatal regulation of plant cell.
 - a) Nitrogen
 - b) Phosphorus
 - c) Potassium
 - d) Calcium
- (vii) Who gave the criteria of essentially for plant nutrients?
 - a) Arnon and Stout
 - b) Liebig
 - c) Boussingault
 - d) Priestley
- (viii) Which one are beneficial plant nutrients?
 - a) Nicle
 - b) Silicon
 - c) Sulphur
 - d) Nitrogen
- (ix) Which is the appropriate term for the capacity of soil to produce a plant?

- a) Fertility
- b) Quality
- c) Productivity
- d) All of these
- (x) Which is the classification of fertilizer that supply single nutrient?
- a) Mixed fertilizer
- b) Straight fertilizer
- c) Complex fertilizer
- d) Fertilizer mixture

Group-B

(Short Answer Type Questions)

2.5 x
6=15

- 2. Explain the different forms of soil potassium. (2.5)
- 3. Describe various function of nitrogen in the growth of plants. (2.5)
- 4. Why muriate of potash (MOP) cannot be applied to some crops like potato, tobacco? (2.5)
- 5. What are the functions of molybdenum in plant? (2.5)
- 6. Classify nitrogenous fertilizers. (2.5)
- 7. Explain the different methods of applying fertilizers to soil. (2.5)

OR

- Explain any one biological method of soil testing. (2.5)

Group-C

(Long Answer Type Questions)

5 x 3=15

- 8. Summarize the advantages and disadvantages of green manuring. (5)
- 9. Explain the advantages of Integrated Nutrient Management (INM). (5)
- 10. Summarize the role and deficiency symptoms of calcium in plant. (5)

OR

- Outline the functions and deficiency symptoms of magnesium in plant. (5)

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