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BRAINWARE UNIVERSITY

Term End Examination 2025-2026
Programme – M.Sc.(AG)-Agronomy-2025/M.Sc.(AG)-SSAC-2025
Course Name – Soil Fertility and Fertilizer Use
Course Code - SOIL502(T)
(Semester I)

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) (NH4)2SO4
c) NH3 d) NH4NO3

(iii) In which group N- serve should be placed?

a) Nitrification inhibitor b) Urease inhibitor
c) Nano fertilizer d) Biofertilizer

(iv) Which mineral is considered as sole source of P in soil?

a) Sylvite b) Apatite
c) Carnallite d) Siderite

(v) Tell the name of biofertilizer which fix nitrogen in symbiosis with legume crop.

a) Rhizobium b) Bacillus
c) Frankia d) Pseudomonas

(vi) Select the edible oil cake having highest percentage of nitrogen content.

a) Groundnut b) Mustard
c) Linseed d) Sesame

(vii) Which is the nitrogen containing neutral fertilizer?

a) Urea b) CAN
c) NaNO3 d) KCl

(viii) Define the capability of soil to produce a plant or plant parts.

a) Soil fertility b) soil productivity
c) soil quality d) soil capability

(ix) Choose the nutrient element which is involved in stomatal regulation of plant cell.

a) Nitrogen
b) Phosphorus
c) Potassium
d) Calcium

(x) Who gave the criteria of essentially for plant nutrients?

a) Arnon and Stout
b) Liebig
c) Boussingault
d) Pristley

Group-B

(Short Answer Type Questions) 2.5 x 6=15

2. Briefly explain the concept of integrated nutrient management. (2.5)
3. Choose the correct criteria of essentiality of nutrients as proposed by Arnon and Stout. (2.5)
4. Develop a functional understanding of how potassium contributes to overall plant growth. (2.5)
5. Identify the deficiency symptoms of calcium in plant body (2.5)
6. Explain the different methods of applying fertilizers to soil. (2.5)
7. Explain the Trench method for preparation of FYM proposed by Dr. C N Acharya (2.5)

OR

Explain the deficiency symptoms of potassium in plant. (2.5)

Group-C

(Long Answer Type Questions) 5 x 3=15

8. Explain the mechanism of nutrient uptake by plants. (5)
9. Explain the factors influencing the availability of phosphorus in soil. (5)
10. Write the functions & deficiency symptoms of Molybdenum nutrient in plant. (5)

OR

Integrate the functions & deficiency symptoms of Boron nutrient in plant. (5)

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