



BRAINWARE UNIVERSITY

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Term End Examination 2024-2025

Programme – B.Sc.(Ag)-Hons-2022

Course Name – Manures, Fertilizers and Soil Fertility Management

Course Code - CC-BAG572(T)

(Semester V)

Full Marks : 50

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 20=20

1. Choose the correct alternative from the following :

- (i) How many number of essential elements require for crop growth is?
 - a) 10
 - b) 14
 - c) 15
 - d) 17
- (ii) What is the another name of Potassium chloride?
 - a) SOP
 - b) MOP
 - c) SSP
 - d) DAP
- (iii) Which one is an explosive nitrogenous fertilizer?
 - a) CAN
 - b) $(\text{NH}_4)_2\text{SO}_4$
 - c) NH_3
 - d) NH_4NO_3
- (iv) In which group N- serve should be placed?
 - a) Nitrification inhibitor
 - b) Urease inhibitor
 - c) Nano fertilizer
 - d) Biofertilizer
- (v) Select the expiry period for liquid biofertilizer or bioformulation.
 - a) 6 months
 - b) 8 months
 - c) 9 months
 - d) 12 months
- (vi) Who mentioned that Principal nourishment of plant is water?
 - a) Bacon
 - b) Helmant
 - c) Liebig
 - d) Priestly
- (vii) Which mineral is considered as sole source of P in soil?
 - a) Sylvite
 - b) Apatite
 - c) Carnallite
 - d) Siderite
- (viii) Who gave the essentiality of iron (Fe)?

- a) Priestley
c) Gris
- b) Arnon
d) Warington
- (ix) Which manure has been obtained from sea bird excrement?
a) Guano
c) FYM
- b) Vermicompost
d) Pelophos
- (x) Tell the name of biofertilizer which fix nitrogen in symbiosis with legume crop.
a) Rhizobium
c) Frankia
- b) Bacillus
d) Pseudomonas
- (xi) Who is the father of field plot technique?
a) Jenny
c) Bousingault
- b) Gris
d) Arnon
- (xii) Tell the name of scientific breeding and rising of earthworms.
a) Vermiwash
c) Vermicomposting
- b) Vermiculture
d) Urban composting
- (xiii) What is the starter material used in urban composting?
a) Night soil
c) Crop residue
- b) Cow dung
d) Straw
- (xiv) Select the edible oil cake having highest percentage of nitrogen content.
a) Groundnut
c) Linseed
- b) Mustard
d) Sesame
- (xv) What is their maximum permissible limit of biuret content (%) in urea?
a) 1.5
c) 3
- b) 2
d) 4
- (xvi) Who recommended the Trench method of preparing FYM?
a) C.N. Acharya
c) Jethro Tull
- b) C. K. Chesnin
d) J.L. Sehgal
- (xvii) What is the guaranteed minimum percentage of nutrient (NPK) in a fertilizer mixture?
a) Fertilizer ratio
c) soil grade
- b) Fertilizer grades
d) Fertilizer mixture
- (xviii) How much is the nitrogen content of DAP (in percentage)?
a) 15
c) 18
- b) 16
d) 20
- (xix) Which is the nitrogen containing neutral fertilizer?
a) Urea
c) NaNO₃
- b) CAN
d) KCl
- (xx) Who wrote the book Soil Fertility: Theory and Practice?
a) JS Kanwar
c) Daniel Hillel
- b) DK Das
d) A K Saha

Group-B

(Short Answer Type Questions)

2.5 x
10=25

2. Explain the Properties of any nitrogenous fertilizer. (2.5)
3. Explain the importance of organic manure in soil. (2.5)
4. Explain the role of integrated nutrient management in improving soil quality. (2.5)
5. Illustrate the factors affecting Phosphorus fixation in soil (2.5)

6. Explain the different methods of applying fertilizers to soil. (2.5)
7. Explain the concept and mechanism of nutrient uptake from nano fertilizers. (2.5)
8. Explain the role of nitrogen in plant growth. (2.5)
9. Explain the symptoms occur due to deficiency of nitrogen. (2.5)
10. Classify phosphatic fertilizers on the basis of water solubility. (2.5)
11. Classify the nitrogen containing fertilizers. (2.5)

OR

Classify different types of organic manures. (2.5)

Group-C

(Long Answer Type Questions)

5 x 1=5

12. List out the functions and deficiency symptoms of nitrogen in plant. (5)

OR

List out role and deficiency symptoms of zinc in plant. (5)
