



BRAINWARE UNIVERSITY

Term End Examination 2023-2024

Programme – B.Sc.(Ag)-Hons-2022/B.Sc.(Ag)-Hons-2023

Course Name – Fundamentals of Soil Science-II

Course Code - CC-BAG280(T)

(Semester II)

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) Choose the correct option: The soil particle size less than <0.001 mm is called

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|-----------------|------------|
| a) Soil Colloid | b) Clay |
| c) Stone | d) Boulder |

(ii) Which of the following correct option: The continuous rapid zigzag movement executed by a colloidal particle in the dispersion medium is called

- | | |
|----------------------|------------------|
| a) Brownian movement | b) Tyndal effect |
| c) Plasticity | d) Adsorption |

(iii) Which of the following correct option: The product of decomposition of plant animal residues is called

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|----------|-----------------|
| a) FYM | b) Manure |
| c) Humus | d) Paleo hummus |

(iv) Choose the correct option: Aggregation or clumping together of individual, tiny soil particles is called

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|------------------|-------------------|
| a) Flocculation | b) Deflocculation |
| c) Tyndal effect | d) Adsorption |

(v) What is the sources of negative charge in silicate clays are

- | | |
|-------------------|-----------------------------|
| a) Exposed edges | b) Isomorphous substitution |
| c) Anion exchange | d) All of these |

(vi) The phenomenon by which increase in concentration or accumulation of an ion on solid surface is called

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|---------------|---------------|
| a) Absorption | b) Adsorption |
| c) Plasticity | d) Cohesion |

(Short Answer Type Questions)

2.5 x
10=25

2. Explain the term Ammonification (2.5)
3. What is C/N ratio (2.5)
4. What are the practical implications of the C/N ratio (2.5)
5. What is C/N ratio for Mineralization and Immobilization process (2.5)
6. Explain the effect of soil by the application of organic matter (2.5)
7. What is humus and explain its components (2.5)
8. Explain the term "Eutrophication" (2.5)
9. Explain the type of soil colloids (2.5)
10. Explain the buffering capacity of soils (2.5)
11. Explain how to control soil pollution (2.5)

OR

Explain the Iron or Aluminium ion effects in soil acidity (give the reaction) (2.5)

Group-C

(Long Answer Type Questions)

5 x 1=5

12. Explain the Kind of soil Acidity (5)

OR

Explain the Difference between organic matter and humus (5)
