



Daffodil International University

Department of Agricultural Science

Faculty of Agriculture Sciences

Final Examination, Semester: Summer 2026

Course Code: 0813-2103

Course Title: Soil Science-I (Introductory Soil Science)

Level & Term: Level-2 Term-1

Section: 252 (A,B,C)

Course Teacher: IJJ & DMI

Time: 2 Hrs

Total Marks: 40

"Split answering is strictly prohibited"

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| 1. | a) Enlist different soil forming processes. | PLO1 CLO1 C1 | 2 |
| | b) Compare the laterization and podzolization soil forming processes. | PLO1 CLO1 C4 | 2 |
| | c) Design a typical soil profile diagram and label all master horizons with their key characteristics. | PLO4 CLO1 C6 | 3 |
| 2. | a) Classify essential plant nutrient with their specific functions. | PLO1 CLO5 C4 | 5 |
| | b) "A fertile soil may not be productive, but a productive soil is always fertile"- explain. | PLO2 CLO5 C5 | 2 |
| 3. | a) Define soil pH. Classify soils based on pH values. | PLO4 CLO3 C1 & C2 | 4 |
| | b) Analyze the effect of soil pH on nutrient availability in soil. | PLO5 CLO3 C4 | 3 |
| 4. | a) Identify major deficiency symptoms of K, Ca, Zn, and B. | PLO2 CLO5 C3 | 4 |
| | b) Enlist the available forms of essential plant nutrients and identify the criteria for the essentiality of plant nutrients. | PLO2 CLO5 C1 & C3 | 6 |
| | c) Differentiate between soil fertility and soil productivity. | PLO4 CLO5 C2 | 2 |
| 5. | a) Design a physiological classification chart of bacteria based on their mode of nutrition with suitable examples. | PLO4 CLO4 C6 | 2 |
| | b) Utilize the applications of microbiology in sustainable agriculture. | PLO6 CLO4 C3 | 2 |
| | c) Evaluate the beneficial and harmful effects of fungi in agriculture with examples. | PLO7 CLO4 C5 | 3 |