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School of Agriculture**Master of Science in Agronomy****Mid Term Examination - Nov 2023****Duration : 90 Minutes****Max Marks : 50****Sem I - A1PB106B - Soil Fertility and Fertilizer Use**General Instructions*Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

- 1) Outline the factors that influence the fertility of red soils in India K2 (2)
- 2) Relate the organic manure to sustainable farming practices K1 (3)
- 3) Explain the criteria of essentiality of nutrients K2 (4)
- 4) Illustrate the key differences between the long-term effects of organic manures and chemical fertilizers on soil fertility and crop productivity? K2 (6)
- 5) Identify the effect of soil fertility by use of organic and inorganic fertilizers K3 (6)
- 6) Construct a comparative chart highlighting the key differences in managing fertilizer nitrogen between lowland and upland agricultural systems K3 (9)
- 7) Categorize biological nitrogen fixation in soil and provide examples of each. K4 (8)
- 8) Analyze the different forms of potassium in soil and their availability to plants under various soil conditions. K4 (12)

OR

- Distinguish between the roles of potassium, nitrogen and phosphorus in plant nutrition K4 (12)