

SOIL FERTILITY II (Inorganic Fertilizers)

1. **1995**
State four characteristics of Nitrogenous fertilizers (2 marks)

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2. **1996**
Calculate the amount of K_2O contained in 400kg of a compound fertilizer 25:10:5 (2 marks)

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3. **1996**
State four functions of Potassium in plant growth. (2 marks)

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4. **1998**
State four ways by which plant nutrients may be lost from the soil (2 marks)

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5. **2001**
a) State three functions of nitrogen in crops (2 marks)

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b) State two symptoms of nitrogen deficiency in a growing maize crop (2 marks)

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6. 2003

State four effects of excessive application of Nitrogenous fertilizers on crop growth. (2 marks)

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7. 2004

Give two functions of sulphur in crops (2 marks)

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8. 2004

Give four deficiency symptoms of phosphorous in crops. (2 marks)

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9. 2005

List four ways of applying fertilizers in crops (2 marks)

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10. 2005:

a) Differentiate between macro – nutrients and micro – nutrients (2 marks)

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b) State four functions of Calcium in plant growth and development (2 marks)

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11. 2006 Q5, 6 P1

5. State two factors that would determine the amount of fertilizer to be top dressed to a crop in the field (1 mark)

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6. State four advantages of applying lime as a measure of improving soil condition (2 marks)

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12. 2007 20 P1

A member of young farmers club was advised to apply a complete fertilizer 30: 20:10 in a tomato plot measuring 10m long by 5m wide at the rate of 300kg per hectare

(a) State the percentage of P_2O_5 in the complete fertilizer (1 mark)

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(b) Calculate the amount of fertilizer the member would require for the plot (2 marks) (Show your working)

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13. 2008 Q19 P1

State two ways by which soil pH may affect crop production (1 mark)

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14. 2009 Q10 P1

Give two forms in which nitrogen is absorbed from the soil by plants (1 mark)

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15. 2009 Q26 P1

Name the deficient nutrient element in plant showing the following symptoms.

(a) Stunted growth, die back of plant tips leaves roll up and chlorosis along margin of younger leaves.

($\frac{1}{2}$ mark)

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(b) Yellowing of the leaves appear first on lower leaves, leaves turn brown and fall prematurely, stunted growth (1/2 mark)

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(c) Leaf curling, yellowing of leaves, tips and edges of leaves are scorched and have small mottles (1/2 mark)

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(d) Purpling of leaves, stunted growth, slender stalks and lateral buds remain dormant (2 marks)

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16. 2010 Q3 P1

Give the meaning of the following terms:

(a) Nitrogen fixation into the soil; (1 mark)

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(b) Phosphorus fixation in loss of soil fertility. (1 mark)

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17. 2010 Q18 P1

The table below shows pH values of different soil samples. Study it and answer the questions that follow.

<u>Soil Sample</u>	<u>pH value</u>
S ₁	3
S ₂	4
S ₃	5
S ₄	6
S ₅	7
S ₆	8
S ₇	9
S ₈	10

(a) Which soil sample has the highest acidity?
(¹/₂mark)

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(b) State two ways in which the pH value of sample S can be lowered. (1 mark)

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(c) Which of the above soil samples is suitable for growing tea?
(¹/₂ mark)

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