

Federal university of technology Owerri
School of Agriculture and Agricultural Technology
Department of Soil Science and Technology
Rain Semester Examination 2014/2015

SST506: Soil fertility and organic matter

CREDIT UNIT: 2 UNITS

TIME: 2 1/2 HOURS

Instruction: Answer 5 questions in all, Number 1 is compulsory

1(a) Mention nutrient/ element associated with

- (i) Stunted growth and yellowing of older leaves.
- (ii) Yellowing of above ground parts of aerop
- (iii) Burnt colouration of leaves,

(b) State functions of (i) Boron (ii) Zinc (iii) Molybdenum and (iv) potassium

(c) Why is phosphorus deficiency more problematic in tropical soils than other fertilizer elements.

(d) Mention plant nutrients that are not sourced from the soil system.

2(a) Distinguish between Soil Amendments and Soil Conditioners

(b) Give examples of each

(c) Which Soil Amendment do we need most in the ultisols of the humid tropics.

3 Exclusively discuss factors which influence fertility of tropical soils.

4 Tropical agriculture is organic matter- Based. Discuss?

5(a) Define Soil fertility Regeneration (b) In what ways can we regenerate the declining fertility of soils of Southeastern Nigeria,

6 Write briefly on (a) Biofertilizer (b) vermicomposting (c) Soil mining (d) Organic agriculture