

Federal University of Technology Owerri
School of Agric. and Agric. Technology, Department of Soil Science Technology
Harmattan semester examination, 2014/2015 session.

Soil Genesis and Classification , SST 401. Time allowed: 3 hours

Instruction: Answer five questions, at least two (2) questions from each section.

Section A

- 1(a). Discuss your experiences in the field the day we went for field studies.
(b). what are the functions of soil resource.

- 2(a). Define pedogenesis
(b). In what ways can soils make gains in the pedosphere.

- (3a). Explain the term Weathering
(b). Discuss any three types of chemical weathering
(c). Draw and explain a typical soil profile

Section B

- 4(a). Explain the relevance of soil classification in pedological study
(b). State the **formative elements** and the **major characteristics** of the following soil orders, Vertisols, Inceptisols, Gelisols
(c). Explain the following: (i) Btn, (ii) Bh, (iii) qm.

- 5(a). Explain the following soil taxonomic classes

Vertic Paleustults

Grossarenic Kandiudults

Psammentic Haplustepts

- (b). With at least three examples in each, explain the two major kinds of soil classification.

- 6(a). State the usefulness of the following in soil classification

- (i) Soil moisture regime
(ii) Diagnostic sub-surface horizons
(iii) Soil temperature.

- (b) Differentiate between cryic and frigid soil temperature regimes.

