UNIVERSITY OF FORT HARE

Soil Genesis, Morphology and Classification
AGS 324

NOVEMBER EXAMINATIONS

2018

TIME : 3 HOURS

SUBJECT : AGS 324

MARKS : 100

This paper consists of 2 pages including the cover page

Internal Examiners
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INSTRUCTIONS

1. Answer ALL questions.
2. It is in your best interest to write clearly and legibly.
QUESTION 1 [30]

(a) Outline FIVE (5) reasons for soil classification. [5]
(b) Discuss the procedure for soil identification using the South African Soil Classification. [6]
(c) Giving examples of soil forms, discuss the 2 diagnostic subsurface horizons of soils showing movement of particles (clay, humus, organic matter etc). [10]
(d) Discuss three (3) soil groups showing young soils with an orthic topsoil but weakly developed subsoil. [9]

QUESTION 2 [25]

(a) The WRB classification system comprises two levels of categorical detail. Discuss the two levels. [4]
(b) Describe giving an example of a reference soil group the 3 major properties of an ARGIC HORIZON in the WRB classification system. [6]
(c) Differentiate between ferralic and ferric diagnostic horizons as used in the WRB (2014) classification system. [5]
(d) Discuss two orders of USDA system that represent young soils. [5]
(e) Describe the 5 diagnostic subsurface horizons recognized in United States Soil Taxonomy system and in each case indicate the major criteria used to distinguish the horizons. [10]

QUESTION 3 [40]

(a) Describe in detail the processes involved in a soil survey. [25]
(b) Discuss the principles of land evaluation. [15]