

**UNIVERSITY OF KWAZULU-NATAL**  
**SCHOOL OF AGRICULTURAL, EARTH & ENVIRONMENTAL SCIENCES**  
**MAIN EXAMINATION: JUNE 2013**  
**SUBJECT, COURSE & CODE: SOIL EROSION AND LAND DEGRADATION,**  
**ENVS315W1**

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**DURATION: 3 HOURS**

**TOTAL MARKS: 300**

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**EXTERNAL EXAMINER: Professor S Grab**

**INTERNAL EXAMINER/S: Dr H Watson and Mr Z Goolam Hoosen**

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**NOTE: THIS PAPER CONSISTS OF ONE (1) PAGE.**

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**Instruction to students:**

Answer three of the five questions. Answer each question in a separate answer-book and make sure they are numbered correctly.

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1. Explain why the on-site effects of erosion are the burden of the land user while the off-site effects are the burden of society as a whole. **(100)**
2. Describe the mechanics of the detachment and transport of sediment particles by rainsplash and runoff. **(100)**
3. Describe both the indirect and direct regulatory effects of vegetation on soil erosion. **(100)**
4. The Universal Soil Loss Equation simply multiplies together six factor values. There is however considerable interdependence between these variables. Write an essay substantiating this statement. **(100)**
5. “The history of land degradation in South Africa illustrates that it is a complex issue involving many cause-and-effect-loops deeply rooted in social economic history” (Clarke, 2002: 228). Critically discuss this statement. **(100)**