

**UNIVERSITY OF SWAZILAND**  
**MAIN EXAMINATION 2013/14**  
**FACULTY OF SCIENCE AND ENGINEERING**  
**DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING**

**TITLE OF PAPER : PROFESSIONAL PRACTICES**

**COURSE CODE : EE411**

**TIME ALLOWED : THREE HOURS**

**INSTRUCTIONS:**

- 1) **Answer any FIVE of the SIX questions**
- 2) **Each question carries 20 marks distributed as shown on the right margin.**

**THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR**

Question 1

- a) How would you define Engineering? (5)
  
- b) Name at least 8 activities that are involved in Engineering? (4)
  
- c) How would you define an Electrical Engineering? (4)
  
- d) Where do Electrical Engineers work? (4)
  
- e) What are the attributers of a professional Engineering student? (3)

Question 2

- a) Should Engineers be familiar with legal issues in the environment they operate? (10)
- b) In most countries exists an "Engineering Council", which is established by an Act of Parliament. What is the purpose for such an establishment? (6)
- c) Why do we need codes and standards in the Engineering profession?(4)

Question 3

- a) What is the Intellectual Property and what are the two main branches it comprises of? (8)
  
- b) Briefly define a patent, a copy right and a trade mark? (6)
  
- c) Name three organisations responsible for Intellectual Property issues worldwide and regionally. (3)
  
- d) What is a Trade Secret? (3)

Question 4

- a) How would you define a Contract? (4)
- b) What makes an agreement a Contract? (4)
- c) What does Contract Enforcement entail? (4)
- d) If Uniswa had employed you as an assistant lecture and all of a sudden decides to terminate your employment without notice. How would you go about to seek remedy for Breach of Contract? (6)

Question 5

- a) What is the difference between morals and ethics? (5)
  
- b) Do you think engineers need to know about ethics? (5)
  
- c) What is a code of Ethics and why do you think most organisations have developed codes of Ethics? (5)
  
- d) Who does an engineer interact with in his daily life or work place? (5)

Question 6

- a) What is the importance of Health and Safety in a work place? (4)
  
- b) Name five causes of accidents in factories? (5)
  
- c) What can be done to minimise or prevent these accidents? (5)
  
- d) Who are the key stakeholders in the Health and Safety activity and what are their respective roles? (6)