

**UNIVERSITY OF SWAZILAND**  
**MAIN EXAMINATION, SECOND SEMESTER**  
**MAY 2016**

**FACULTY OF SCIENCE AND ENGINEERING**

**DEPARTMENT OF ELECTRICAL AND ELECTRONIC  
ENGINEERING**

**TITLE OF PAPER: PROFESSIONAL PRACTICE**  
**COURSE CODE: EE411**

**TIME ALLOWED: THREE HOURS**

**INSTRUCTIONS:**

1. There are six questions in this paper. Answer any FIVE questions. Each question carries 20 marks.
2. If you think not enough data has been given in any question you may assume any reasonable values.

**THIS PAPER SHOULD NOT BE OPENED UNTIL PERMISSION  
HAS BEEN GIVEN BY THE INVIGILATOR**

**THIS PAPER CONTAINS SEVEN (8) PAGES INCLUDING THIS PAGE**

**Question 1(20 marks)**

- 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 in Swaziland? (4)
- e) What are the attributers of a professional Engineering student? (3)

**Question 2 (20 marks)**

- 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 (20 marks)**

- 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 (20 marks)**

- a) How would you define a Contract? (5)
  
- b) What makes an agreement a Contract? (4)
  
- c) What does Contract Enforcement entail? (5)
  
- 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 (20 marks)**

- 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 (20 marks)**

- 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)