

**UNIVERSITY OF SWAZILAND**

**MAIN EXAMINATION PAPER: MAY 2016**

**TITLE OF PAPER: MICROBES AS A RESOURCE**

**COURSE CODE: ERM613/BIO 608**

**TIME ALLOWED: THREE HOURS**

**INSTRUCTIONS:**

- 1. ANSWER ANY THREE QUESTIONS**
- 2. EACH QUESTION CARRIES THIRTY (30) MARKS**

**SPECIAL REQUIREMENTS: NONE**

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

**QUESTION 1**

Biotechnology and innovation parks are instrumental in sustainable development worldwide. Deliberate on how you would convince a non-microbiologist that environmental microbiology is essential in these developmental ventures. (30 marks)

**QUESTION 2**

Discuss the role of microbes in environmental management. (30 marks)

**QUESTION 3**

a) Argue for or against the significance of microbe-metals and microbe-metallic ion interactions in the improvement of environmental health. (30 marks)

**QUESTION 4**

Bioremediation is a sound choice in polluted environments. Discuss. (30 marks)