

**UNIVERSITY OF SWAZILAND
FACULTY OF EDUCATION
DEPARTMENT OF CURRICULUM AND TEACHING
FINAL EXAMINATION QUESTION PAPER, DECEMBER 2007**

TITLE OF PAPER : CURRICULUM STUDIES IN BIOLOGY I
COURSE CODE : EDC 278
STUDENTS : BEd. II, PGCE
TIME ALLOWED : THREE (3) HOURS

INSTRUCTIONS: 1. This examination paper has six (6) questions. Answer any four (4) questions
2. Each question has a total of 25 points.

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

1. Discuss the concept of 'demarcation' in the generation of scientific knowledge from the perspective of the following philosophers: Karl Popper, Thomas Kuhn and Peter Medawar. [25]
2. Scientific inquiry comprises three major phases, that is, the creative phase, the experimental phase and the recording and reporting phase. Explain what each phase entails, giving examples of the activities research scientists engage in. [25]
3. Models are widely used in science. Discuss, giving illustrations, the nature and the role of scientific models in scientific inquiry. [25]
4. The place of science in the school curriculum can be justified on intrinsic as well as extrinsic grounds. Elaborate. [25]
5. The learning cycle, is composed of 5 phases, that is, engagement, exploration, explanation, elaboration, and evaluation. Explain how each phase engages the learner, citing instances in biology instruction. [25]
6. Laboratory work fosters skills development in learners such as acquisition, organising, creative, manipulative, and communicative skills. Discuss the specific skills that can be developed in the mentioned categories. [25]