

**UNIVERSITY OF SWAZILAND
FACULTY OF EDUCATION
DEPARTMENT OF CURRICULUM AND TEACHING
SUPPLEMENTARY EXAMINATION QUESTION PAPER, JULY 2018**

TITLE OF PAPER : **CURRICULUM STUDIES IN BIOLOGY II**
COURSE CODE : **CTE328/528; EDC378**
STUDENTS : **BEd. LEVEL III, PGCE**
TIME ALLOWED : **THREE (3) HOURS**

INSTRUCTIONS: 1. This examination paper has five (5) questions. Answer four (4) questions only
2. Each question has a total of 25 points.

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

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1. a) Swaziland, like the majority of African countries, is a consumer rather than a producer of science and technology. Explain why it is important for Swazi children to be taught Science, Technology and Society issues in school. [10]
 - b) The structure of Science Technology and Society (STS) science courses varies, depending on whether emphasis is on STS science or traditional science. Compare and contrast the characteristic features of a science course that, to a large extent, emphasises traditional science and one that, to a large extent, emphasises STS science. [10]
 - c) Science Technology, Engineering and Mathematics (STEM) education aims to provide learners with skills of the 21st century. Describe two characteristics of such skills. [5]
 2. a) Describe the considerations you would make when planning a gender responsive science lesson for a mixed gender class. Indicators for gender responsiveness must be evident in the planning. [10]
 - b) Over the years, women have been reported to be underrepresented in the science professions. Provide the causes for this under-representation. [15]
 3. a) When the Swaziland Integrated Science Programme (SWISP) was implemented, teachers complained that they could not properly apply it to Swazi schools. Discuss the numerous issues that confronted teachers when using this curriculum. [10]
 - b) A contextualised science curriculum in which the content reflects the students' everyday experiences is now being emphasised for schools in Swaziland. Outline the steps you would take to develop a relevant and affordable science curriculum for rural secondary schools in a specified region in Swaziland. Include considerations you would make to plan, design, implement and evaluate your curriculum. [15]
 4. a) Terry Allsop identified problems faced by low income/developing countries in conducting practical activities in their science instruction. Discuss the problems faced by science teachers in Swaziland in this regard and their implications in effectively implementing the SGSCE syllabus. [15]
 - b) Describe the factors that affect interaction between sensory information and Short Term Memory which may interfere with learners' acquisition of science concepts. [10]
 5. a) Discuss the role of the following in meaningful learning: [3x3]
 - i) prior concepts
 - ii) subsumers
 - iii) advance organisers
 - b) According to Bruner, certain processes take place in cognitive structure during discovery learning. Discuss these processes. [10]

- c) Concept mapping is an instructional tool that is beneficial to both the learner and the teacher. Explain how this is so. [6]