BINDURA UNIVERSITRY OF SCIENCE EDUCATION

FACULTY OF SCIENCE EDUCATION

SCIENCE AND MATHEMATICS EDUCATION DEPARTMENT

BACHELOR OF SCIENCE EDUCATION HONOURS DEGREE (HBScEd-Chemistry)

CHE300: TRENDS IN CHEMISTRY EDUCATION

Duration: 3 Hours Total Marks 100

AUG 2024

Instructions to Candidates

1. Answer any three questions.
2. Relate all answers and examples to the teaching of Chemistry in Zimbabwean schools.
3. Begin each new question on a fresh page.

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1. What is the concept of STEMatization, and how does it relate to Education 5.0? Discuss its implications for the modernization of chemistry education in Zimbabwe. [100 marks]

2. Explore the various synthesis methods used in nano-chemistry, such as bottom-up and top-down approaches. How can educators convey the intricacies of these methods to students and promote critical thinking about which method to choose for specific applications. [100 marks]

3. Discuss the reduction in resource consumption and waste generation associated with digital chemistry practicals. [100 marks]

4. Explain why it is crucial to create an inclusive learning environment in chemistry education. [100 marks]
5. Explore the role of chemistry education in advancing renewable energy technologies. [100 marks]

End of Examination Paper