



SOUTH EASTERN KENYA UNIVERSITY
UNIVERSITY EXAMINATIONS 2019/2020

**FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF
EDUCATION**

TCT 332: CHEMISTRY SUBJECT METHODS

DATE: 4th DECEMBER, 2019

TIME: 4.00-6.00pm

Answer question one and any other two questions

Question1

- A. Discuss three major reasons for including chemistry in secondary school curriculum. 5 marks
- B. Explain the importance of scientific method of inquiry in chemistry teaching and learning 5 marks
- C. Outline the considerations a chemistry teacher needs to take into account when storing the following 5 marks
- i). Phosphorus
 - ii). Methoxyethane
 - iii). Sodium cyanide
- D. Highlight the qualities of a good model for teaching chemistry 6 marks
- E. State two objectives in psychomotor domain , which are concerned with acquisition of manipulation of skills 4 marks
- F. Explain why a table of specification is an important tool for developing chemistry test. 3 marks

Question 2

- a) Giving examples, describe the areas of chemistry syllabus where models are particularly useful. 10 marks
- b) Explain how discussion groups in chemistry can be enhanced by incorporating elements of cooperative learning 10 marks

Question 3

- a) Briefly explain why tests are ideal in teaching and learning of chemistry. 5 marks
- b) Discuss the advantages of structured questions as compared to essay type of questions in chemistry. 10 marks
- c) Highlight five points you would consider when constructing a structured question in chemistry 5 marks

Question 4

- a) Describe how shock arising from an accident in a chemistry laboratory can be treated. 5 marks
- b) With reference to the topic, Acids and Bases, .Prepare a 40 minutes lesson plan to teach the sub topic, reaction of acids with metal. 15 marks

Question 5

- a) Identify 4 classes of fires which may arise in chemistry laboratories and explain how they can be contained. 8 marks
- b) Discuss problem solving as a method of teaching and learning in chemistry. 12 marks