



# MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)

University Examinations 2015/2016

SCHOOL OF EDUCATION

DEPARTMENT OF EDUCATION COMMUNICATION AND TECHNOLOGY

SECOND SEMESTER EXAMINATION FOR DIPLOMA IN EDUCATION

ECT 0207: SUBJECT METHODS CHEMISTRY

Date: 5/8/2016

Time: 2:00 – 4:00 PM

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## INSTRUCTIONS

*Answer Question One and Any Other Two Questions*

### QUESTION ONE

- a) Outline four aims of teaching Chemistry in secondary school in Kenya. (4 marks)
- b) A teacher should use a teaching method that is effective. Describe five characteristics of heuristic methods of teaching chemistry (5 marks)
- c) Explain the factors that a teacher should consider when selecting a teaching method. (5 marks)
- d) A good chemistry teacher must always plan. What does planning involve in chemistry? (6 marks)
- e) Chemistry has major roles in the society citing examples, describe two of these roles. (4 marks)
- f)
  - i) Discuss three reasons as to why assessment is important in chemistry learning (3 marks)
  - ii) A chemistry practical examination is one form of chemistry assessment. What main qualities does a chemistry practical examination test? (3 marks)

## QUESTION TWO

- a) In teaching instructional objectives are key components. Describe five ways in which instructional objectives are important in the teaching of chemistry. (5 marks)
- b) Describe the characteristics of appropriate instructional objectives. (5 marks)
- c) Instructional objectives are stated to satisfy the cognitive level of the Bloom Taxonomy (1956). Explain any five levels of the cognitive level giving examples of concrete objectives. (10 marks)

## QUESTION THREE

- a) In teaching chemistry questioning techniques and dealing with student answers play an important role in a lesson. Explain five major roles of this technique giving examples of each. (10 marks)
- b) By use of examples differentiate between deductive and inductive approaches to teaching. (6 marks)
- c) Describe four ways in which learners' motivation in chemistry can be improved. (4 marks)

## QUESTION FOUR

- a) Discuss five advantages using practical work in chemistry. (5 marks)
- b) Explain five reasons why a teacher would choose to use demonstration method of teaching instead of class experiment. (5 marks)
- c) Describe the fittings of a modern laboratory and give the uses of each of the fittings. (10 marks)

## QUESTION FIVE

- a) Discuss four advantages of writing and using a scheme of work. (8 marks)
- b) Write single lesson plan (for a 40 minutes lesson) on the topic of structure and bonding. (12 marks)