

**3<sup>RD</sup> YEAR 1<sup>ST</sup> SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF EDUCATION SCIENCE WITH IT (SCHOOL BASED)**

**COURSE CODE : ECT 333**

**TITLE : SPECIAL METHODS FOR TEACHING CHEMISTRY**

**QUESTION 1**

- a) Discuss the levels at which planning may be done in schools (5mks)
- b) Construct a suitable lesson plan to teach the topic “temporary and permanent changes” to a form one class in a double lesson (10mks)
- c) Which factors should you consider in preparing lesson notes. (3mks)
- d) Distinguish between deductive and inductive reasoning and show how both are incorporated in the scientific method. Use relevant illustrations from chemistry teaching (6mks)
- e) What are the advantages and challenges of using the modern, open – plan laboratory design in chemistry teaching (6mks)

**QUESTION 2**

Three possible forms of practical work a chemistry teacher may resort to are:

- Small group class experiment.
  - Teacher demonstration and
  - Investigation
- a) Argue the case for the use of practical work in the teaching and learning of chemistry (5mks)
  - b) Highlight the characteristics, merits and short comings of each of these three practical activities (12mks)
  - c) Why should it be mandatory for the chemistry teacher to always rehearse an experiment before presenting it to students (3mks)

**QUESTION 3**

- (a) Design a 3 week scheme of work to teach the topic: methods of preparing salts; given that chemistry has been allocated four (4) lessons per week for the class in your school. (12mks)
- (b) List the principles that have guided you to in the “building” of any 3 of the columns of the schemes of work constructed above. (3 mks)
- (c) Identify any benefits for using a scheme of work in your planning to teach chemistry. (5mks)

**QUESTION 4**

- (a) Justify the use of local materials in the school environment in teaching chemistry. (6mks)
- (b) Explain the ASEI / PDSI movement of teaching and learning of chemistry (10mks)
- (c) Highlight the challenges that face the chemistry teacher’s efforts to improve materials for teaching (4 mks)

**QUESTION 5**

Evaluation is key to teaching chemistry discuss (20 mks)

