



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

INSTITUTION BASED PROGRAMME (DECEMBER SESSION)

EXAMINATION FOR POSTGRADUATE DIPLOMA IN EDUCATION

PG/ECT 29: PHYSICS SUBJECT METHODS

DATE: THURSDAY, 3RD MAY 2012

TIME: 8.00 A.M. – 10.00 A.M.

INSTRUCTIONS: ANSWER QUESTION ONE AND ANY OTHER TWO.

1.
 - a) Briefly explain the broad views of the science concept. [4 marks]
 - b) Using examples, explain how the study of physics helps in technological advancement. [4 marks]
 - c) Explain at least four objectives of the 8-4-4 physics syllabus. [4 marks]
 - d) Using any two areas in the physics syllabus, explain how the knowledge acquired contribute to national development. [4 marks]
 - e) Explain briefly how you would treat an acid burn in the lab. [5 marks]
 - f) Explain how the study of physics helps in promoting good attitudes towards good health and environmental considerations. [5 marks]
 - g) Outline at least four considerations you would take when choosing textbooks for teaching physics. [4 marks]

SECTION B: Answer any two questions from this section.

2. The performance of physics has been relatively poor. Explain clearly four main factors which have contributed to this poor performance. [20 marks]
3.
 - a) What is a scheme of work? [2 marks]
 - b) Explain the reasons why a scheme of work is a necessary tool for effective teaching. [5 marks]
 - c) Explain four points you need to consider when writing schemes of work. [4 marks]
 - d) Explain four characteristics that a good lesson objectives should have. [4 marks]
 - e) Apart from writing schemes of work and lesson plans a physics teacher requires more to prepare for a good physic lesson. Explain why this is so. [7 marks]

4. a) Explain at least three common hazards in a physics laboratory. [6 marks]
- b) Explain two common causes of fires in the laboratory and the precautions to be taken when they occur. [6 marks]
- c) The 8-4-4 system of education is set to be overhauled if a proposal by a task force set by government goes through. Name the new system and suggest a phase name you would give the new phase and also give at least three things you would like done differently from the 8-4-4 system. [8 marks]
5. What are the external and internal pressures that lead to curriculum review after Kenya attained her independence in 1963. [20 marks]
