



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2014/2015

DIGITAL SCHOOL OF VIRTUAL AND OPEN LEARNING

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF ARTS AND BACHELOR OF EDUCATION

AGE 416: GEOGRAPHY OF ENERGY

DATE: Thursday 30th April 2015

TIME: 8.00a.m -10.00a.m

INSTRUCTIONS:

Answer **Question One** and any **Two** Questions.

Use illustrations where appropriate.

1. (a) Describe the following concepts:
 - (i) Energy supply systems. [2 Marks]
 - (ii) Energy Carriers. [2 Marks]
 - (b) Explain the challenges associated with the following processes:
 - (i) Storage of vegetable oils and bio-fuels. [4 Marks]
 - (ii) Coal-to-liquid conversion. [4 Marks]
 - (c) Explain why nuclear energy may get mentioned in the same group as renewable power sources like wind and solar, but is in fact, a nonrenewable resource. [10 Marks]
 - (d) Compare and contrast the advantages of petroleum oil and natural gas. [8 Marks]
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2. 'A sustainable future depends on more efficient use of the Earth's abundant energy resources in order to meet the rapidly increasing demand for energy services as well as to provide broader access to everyone'. Discuss. [20 Marks]

3. Explain how the following energy sources may help combat global warming:
- (a) Photovoltaic cells [5 Marks]
 - (b) Biodiesel [5 Marks]
 - (c) Wind power [5 Marks]
 - (d) Geothermal [5 Marks]
4. Describe how inequalities in energy supply systems influence:
- (a) Economic growth discrepancies. [10 Marks]
 - (b) Forest conservation challenges. [10 Marks]
5. Discuss the practical measures that Kenya needs to implement to ensure the success of energy efficiency and conservation policies. [20 Marks]