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UNIVERSITY EXAMINATIONS 2024/2025

FOURTH YEAR, FIRST SEMESTER EXAMINATION FOR DEGREE OF BACHELOR OF
SCIENCE IN ECONOMICS

BEC 3403: ENERGY ECONOMICS

DATE: JANUARY 2025

TIME: 2 HOURS

INSTRUCTIONS: *Answer Question ONE and any other TWO Questions.*

QUESTION ONE – (30 MARKS)

- a) Explain five (5) types of renewable energy resources. (10 Marks)
- b) Explain the cake eating model as one of the depletion theories in energy economics. (10 Marks)
- c) Define energy demand management and discuss 4 challenges experience in energy demand management. (10 Marks)

QUESTION TWO – (20 MARKS)

- a) Define energy trade and explain four factors that influence the economics of energy economics. (10 Marks)
- b) Define reserve to production ratio and explain four applications of the reserve to production ratio in energy economics. (10 Marks)

QUESTION THREE – (20 MARKS)

- a) Define the following terms (10Marks)
 - i) Energy poverty
 - ii) Equitable access
 - iii) Externalities
 - iv) Information asymmetry
 - v) Energy justice
- b) Explain five market-based policy instruments used to encourage pollution reduction. (10 Marks)

QUESTION FOUR - (20 MARKS)

- a) Define downstream activities and explain four downstream issues in energy economics. (10 Marks)
- b) Explain five energy security strategies that countries can adopt to reduce vulnerabilities related to energy dependence. (10 Marks)

QUESTION FIVE – (20 MARKS)

- a) Explain five factors influencing energy consumption. (10 Marks)
- b) Explain the Business-as-usual (BAU) scenario as one of the most commonly discussed scenarios of the future outlook for global energy consumption. (10 Marks)