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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)