



# UNIVERSITY OF RUHUNA

## Faculty of Engineering

Mid - Semester 7 Examination in Engineering: June 2015

Module Number: ME 7363

Module Name: Energy Technology

[Two Hours]

[Answer all questions, each question carries *five* marks]

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- Q1. a) Briefly describe the formation process of Petroleum Oil Deposits. [2 Marks]
- b) Discuss the possible reasons for the recent fossil fuel prices dropping down in the world market. [1.5 Marks]
- c) State two nonconventional fossil fuel sources. Discuss their advantages and disadvantages. [1.5 Marks]
- Q2. a) What is called the "Green House Effect" and how does it lead to "Global Warming"? [2 Marks]
- b) State three Green House Gases (GHGs) emitted to the atmosphere due to the usage of Fossil Fuels and discuss their main human activity sources and Global Warming Potential (GWP). [3 Marks]
- Q3. a) With neatly drawn sketches discuss the two main petroleum recovery processes from the earth. [3 Marks]
- b) Explain the process of conversion of solid coal to Synthetic Natural Gas (SNG) by coal gasification [2 Marks]
- Q4. a) List out the four (04) biomass technologies available in the world [2 Marks]
- b) What are the methods available for direct combustion of biomass in industry? Briefly explain two of these methods with suitable sketches. [3 Marks]