



**Strathmore**  
UNIVERSITY

SCHOOL OF COMPUTING AND ENGINEERING SCIENCES  
MASTER OF SCIENCE IN SUSTAINABLE ENERGY TRANSITIONS  
MSSET8103: POWER SYSTEMS FUNDAMENTALS  
END OF SEMESTER EXAMINATION

DATE: 13<sup>th</sup> May 2022

Time: 2 Hours

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**Instructions**

1. This examination consists of **FIVE** questions.
  2. Answer **Question ONE (COMPULSORY)** and any other **THREE** questions
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1. Describe the Kenyan Power Market, from generation to consumption, discussing all the players involved, as provided for in the Energy Act of 2019 **(15 marks)**
2. Describe the meaning of the following terms listed as per their appearance in the Energy Act of 2019 **(15 marks)**
  - a) Off-taker
  - b) Feed in Tarif
  - c) Energy Auction
  - d) REREC
  - e) County Energy Plan
3. In the past, power market was centralized and could well be categorized into generation, transmission and distribution. This is transitioning into a lot more complex arrangement. Describe how you see the Kenyan power sector of the future, in light of these anticipated transitions. **(15 marks)**
4. Describe how devolution and INEP has impacted the LCPDP in Kenya since 2010 and explain how you see its development. **(15 marks).**
5. Setting up a School of Regulation in Kenya will be useful in helping energy professionals in Kenya and Africa to understand the general principles and methods of power market regulations. Discuss three broad goals of power market policies and regulations that energy professionals may learn from such a school. Further, discuss three tools that can be used to meet these goals. Explain why it is strategic to set up a school of regulation in Kenya to serve the country and the continent at large. **(15 marks).**