

Part B

1. a) What is pyrolysis? (05 mark)
 - b) State the major steps of pyrolysis. (04 mark)
 - c) Briefly explain what are direct fired furnace and indirect fired furnace. (06 mark)
 - d) Explain the fluidized bed gasification process with suitable diagrams. (10 mark)
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2. a) What is eutrophication? (05 mark)
 - b) Briefly explain the biogas production process. (10 mark)
 - c) Municipal council of Badulla district wanted to find immediate and permanent solutions to remove the enormous garbage collection near Vincent Dias stadium. Therefore, they called a meeting with the government representatives to discuss the possible threats from this garbage collection to the environment and the available solutions. Imagine that you have been invited as a representative from Uva Wellassa University for this meeting. Briefly explain what are the possible threats to the environments and possible solutions to reduce the garbage collection. (15 mark)
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3. a) What are the key elements that control biofuel demand and the market? (05 mark)
 - b) State the differences between simultaneous saccharification and fermentation and sequential hydrolysis and fermentation? (05 mark)
 - c) Explain the major steps of cellulosic bioethanol production process. (15 mark)



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