



SABARAGAMUWA UNIVERSITY OF SRI LANKA
FACULTY OF MANAGEMENT STUDIES

004

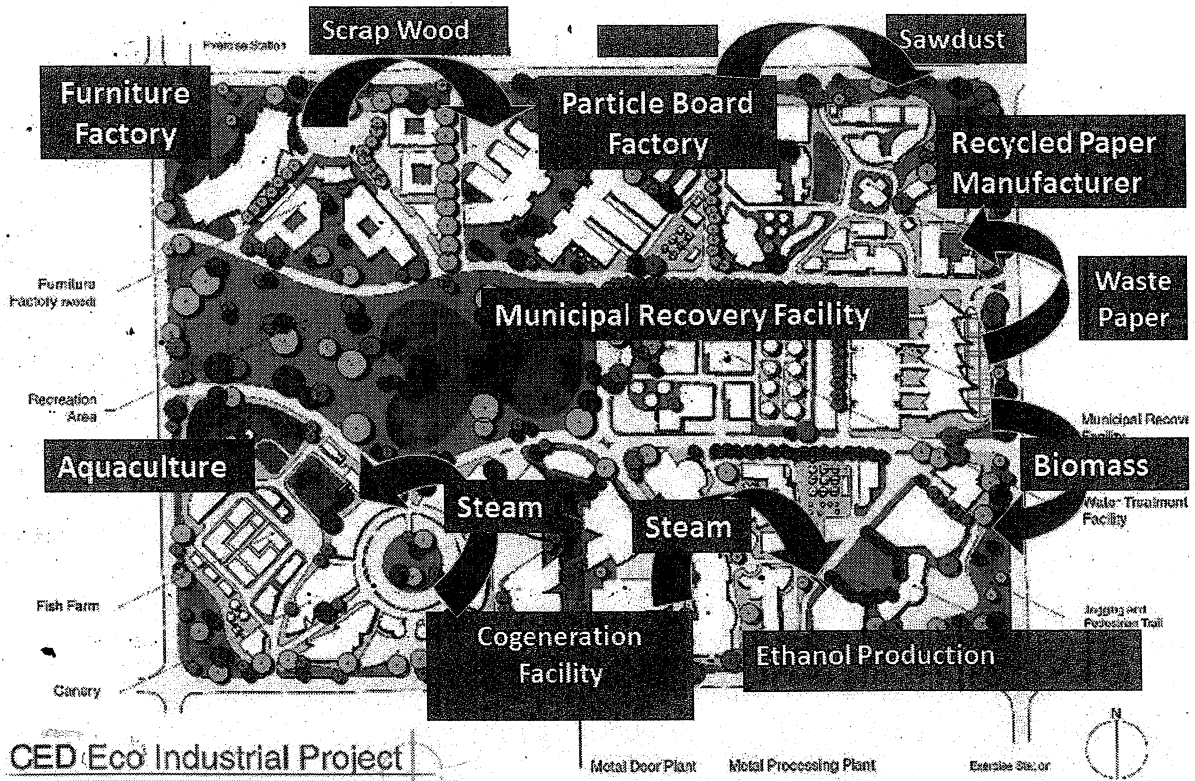
BSc DEGREE PROGRAMME IN ECOBUSINESS MANAGEMENT
YEAR III SEMESTER I EXAMINATION – SEPTEMBER/OCTOBER 2017

INDUSTRIAL ECOLOGY - EBM 3153@

Time allowed: THREE (03) Hours

Answer ALL questions

- 1 a) Make your own definition to define “Industrial Ecology” (05 Marks)
b) Briefly discuss, how we can incorporate the concepts on ‘Industrial Ecology’ in Sabaragamuwa University of Sri Lanka to transform from conventional university to a ‘Green and Ecological Friendly University’? (10 Marks)
- 2 Briefly describe the *five types of EIP’s* defined by Chertow (2000) referring to their geographic area and symbiosis relationships giving appropriate examples. Draw the diagrams if necessary. (15 Marks)
- 3 The figure given below shows a industrial symbiosis for an Eco Industrial Park



- a) Briefly explain the term “Industrial Symbiosis”. (05 Marks)
- b) Briefly explain the industrial symbiotic relationships and their economic and environmental benefits of those as depicted in the diagram above. (10 Marks)

- 4 a) Draw a full life cycle stages of a T- Shirt made with cotton yarn indicating possible inflows and outflows in different life cycle stages (05 Marks)
- b) Define a functional unit for a T - Shirt (05 Marks)
- c) Describe the main stages of Product Life Cycle Assessment (LCA) using appropriate examples (05 Marks)
- 5 Write short notes on **THREE (3)** of following.
- a) Close Loop vs Open Loop Recycling
 - b) Eco Design
 - c) Material Flow Analysis
 - d) Uses of LCA
 - e) Circular Economy

(05 Marks each)

30