



**EASTERN UNIVERSITY, SRI LANKA**  
**FACULTY OF SCIENCE**  
**THIRD YEAR EXAMINATION IN SCIENCE- 2020/2021**  
**SECOND SEMESTER – JULY/AUGUST - 2024**  
**EN3012 - RESOURCE EFFICIENCY AND CLEANER PRODUCTION**

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**Answer all Questions**

**Time Allowed: 02 Hours**

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**01.**

- a) What is Cleaner Production (CP)? [10 Marks]
- b) How does CP differ from end-of-pipe solutions? [10 Marks]
- c) What are the main goals of CP? [10 Marks]
- d) What are the key principles of CP? [10 Marks]
- e) What is the role of innovation in CP? [10 Marks]
- f) What are some contemporary approaches to CP? [10 Marks]
- g) How does eco-efficiency relate to CP? [10 Marks]
- h) What is sustainable production? [10 Marks]
- i) How does the circular economy support CP? [10 Marks]
- j) What is the first step in a CP assessment? [10 Marks]

**02.**

- a) What is the purpose of generating CP options? [10 Marks]
- b) What is the role of employee involvement in CP option generation? [10 Marks]
- c) How can technology scouting support CP? [10 Marks]
- d) What are the key factors to consider in feasibility evaluation of CP options? [10 Marks]
- e) What is the role of management support in CP implementation? [10 Marks]
- f) How can employee training support CP implementation? [10 Marks]
- g) What are common barriers in implementing CP? [10 Marks]
- h) How can organizational culture impact CP? [10 Marks]
- i) What are enabling measures for CP implementation? [10 Marks]
- j) What is the role of technical support in CP? [10 Marks]

03.

- a) Explain the differences between eco-innovation and eco-design. [30 Marks]
- b) Explain why businesses are embracing eco-efficiency. [30 Marks]
- c) Briefly explain the 'green procurement'? [40 Marks]

04. Answer the following questions

- a. Define the term "Pollution" [10 Marks]
- b. List the different types of Pollution. [20 Marks]
- c. Comment on the causative agents of noise pollution and effects. [30 Marks]
- d. Briefly describe the steps to control above stated pollution. [40 Marks]

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