

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF INDUSTRIAL TECHNOLOGY

DEPARTMENT OF INDUSTRIAL AND MANUFACTURING ENGINEERING

**Bachelor of Engineering Honours Degree Industrial & Manufacturing
Engineering**

Environmentally Conscious Manufacturing – TIE 5214

2nd SEMESTER EXAMINATIONS AUGUST , 2009

Instructions to Candidates

Time Allowed: 3 hours

Answer any FIVE questions

QUESTION 1

Give an overview of the role which can be played by implementing environmentally conscious manufacturing within an organization. [20]

QUESTION 2

You are an Engineering Manager in an organization . Draft a document which will convince management that they should impliment cleaner production. [20]

QUESTION 3

Environmentally conscious manufacturing “ECM”

- a) Discuss those aspects which constitute the environment in the manufacturing setup. [12]**
- b) How do these aspects get affected. [8]**

QUESTION 4

Explain with examples the following

- i) Emission reduction strategies [5]**
- ii) Green Engineering [5]**
- iii) Life cycle assessment [5]**
- iv) Pollution prevention [5]**

QUESTION 5

Discuss the issues which are raised when dealing with sustainable development [20]

QUESTION 6

Using 3 specific products show how an environmentally conscious manufacturing can be set up for each. [20]

END OF EXAM