

National University of Science and Technology

Faculty of Industrial Technology

Department of Industrial and Manufacturing Engineering

Bachelor of Engineering in Industrial and Manufacturing Engineering

First Semester Examinations April 2009

Introduction to Industrial Engineering TIE 1105

Duration: 3 hours

Answer: Five Questions (Four from Section A and compulsory question in Section B)

Section A

Question 1

- a) Briefly explain the difference between Production Engineering and Industrial Engineering? [10]
- b) Briefly describe one career path or job position of an Industrial and Manufacturing engineer. [5]
- c) List five problems that you find in Industry that would need an Industrial and Manufacturing Engineer to help the company. [5]

Question 2

- a) Define Method study? [5]
- b) Explain briefly the method study procedure. [15]

Question 3

- a) Explain five factors that influence task learning. [10]
- b) Briefly explain one technique within direct work measurement. [10]

Question 4

- a) How can shortcomings on the part of the management affect manufacturing cycle time? [8]
- b) Briefly discuss productivity. [12]

Question 5

- a) How can one reduce ineffective time within the control of the worker? [8]
- b) Briefly explain one technique within indirect work measurement. [12]

SECTION B

Question 6

- (a) Develop two-handed processes chart for the assembly of an Eversharp 15M pen. [16]
- (b) Include illustrations of the work area arrangement assuming refills are sub assembled already. [4]

End of Exam