

**PRINCE OF SONGKLA UNIVERSITY**

**THE FACULTY OF ENGINEERING**

**Midterm Examination Semester II**

**Academic Year 2004**

**Date:** December 23,2004

**Time:** 09:00 – 12:00

**Subject:** 225-453 Value Engineering

**Room:** R300

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**Instructions :**

- 1) Answer all questions.
- 2) All books and materials are allowed.

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1. What is the major benefit of *Value Engineering* over *Industrial Engineering*  
(10 points)
  2. What is innovations ? How can we use them for VE applications ?  
(10 points)
  3. Analyse and list the basic functions of the items as the following:
    - 3.1 a cup of tea.
    - 3.2 a compass
    - 3.3 chair
    - 3.4 copying paper
    - 3.5 a toothbrush (50 points)
  4. Assume the basic functions from 3.1,draw a sketch design of innovation for a cup of tea and copying paper and determine costs of functions.  
(20 points)
  5. What is the mental block if the package of “Coke” has been changed from can to bottle ?  
(10 points)

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Prepared by

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