

PRINCE OF SONGKLA UNIVERSITY
THE FACULTY OF ENGINEERING

Midterm Examination Semester II

Academic Year 2008

Date: December 24,2008

Time: 09:00-12:00

Subject: 225-465 Value Engineering and Cost Analysis **Room:** R300

ทฤษฎีในการสอบ โทษขั้นต่ำคือ ปรับตกในรายวิชาที่ทฤษฎี และพักการเรียน 1 ภาคการศึกษา

Instructions :

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

1. What is the major benefit of *Value Engineering* over *Industrial Engineering* and *Quality Control* ? Explain the benefit of VE in product design.

(15 points)

2. What is the objective of VE phase as the following:

- 2.1 selection phase
- 2.2 function phase
- 2.3 creation phase
- 2.4 evaluation phase

(20 points)

3. Analyse and list the basic functions of the products as the following:

- 3.1 watch
- 3.2 cup of tea
- 3.3 name card
- 3.4 condom
- 3.5 document file

(25 points)



4. Assume the basic functions from 3., draw a sketch design of innovation for condom and document file.

(30 points)

5. Draw a sketch design for an ideal car using creative thinking principle.

(10 points)

Prepared by

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