

**PRINCE OF SONGKLA UNIVERSITY**  
**FACULTY OF ENGINEERING**

**Midterm Examination : Semester 1**

**Academic Year : 2008**

**Date : 29 July, 2008**

**Time : 09:00-12:00**

**Subject : 225-349 Safety and Environmental Engineering**

**Room : R300**

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**ทฤษฎีในการสอบ โทษขั้นต่ำคือ ปรับตกในรายวิชาที่ทฤษฎี และพักการเรียน 1 ภาคการศึกษา**

**Instructions :**

- 1. There are 10 questions, 100 points.**
- 2. Answer all questions.**
- 3. All materials are allowed.**

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**Questions:**

1. How do the following factors influence safety management in the factory :

- 1.1 safety policy
- 1.2 accident investigation
- 1.3 safety inspection
- 1.4 accident analysis

(10 points)

2. How do the following management techniques use for safety Management?

- 2.1 FMEA
- 2.2 cause and effect diagram
- 2.3 job safety analysis
- 2.4 5S
- 2.5 KYT

(10 points)

3. What is visual control ? List the examples of daily visual control in industry.

(10 points)

4. What is an accident? What are the outcomes of accident in negative and positive aspects?

(10 points)



5. Explain the principle of DOMINO and The Multiple Causation theory.

(10 points)

6. What is job safety analysis? Give a step/process of implementation and an example of job safety analysis in case of metal sheet drilling process.

(10 points)

7. What are 3E? How can they prevent the accident?

(10 points)

8. List the safety standard of operations as the following:

8.1 lift a boxes by using forklift

8.2 metal cutting by circular sawing machine

(10 points)

9. Analyse and identify the matrix of the degree of risks and probability ranking in case of falling from the ladle.

(10 points)

10. What is the supervisor's roles for industrial accident prevention?

(10 points)

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