

PRINCE OF SONGKLA UNIVERSITY
FACULTY OF ENGINEERING

Midterm Examination : Semester 1

Academic Year : 2007

Date : August 3, 2007

Time : 09:00-12:00

Subject : 225-717 Transportation System & Logistics

Room : A303

ทฤษฎีในการสอบ โทษชั้นต่ำปรับตกในรายวิชานั้น และพักการเรียน 1 ภาคการศึกษา

Directions :

- Can take any books to the room.
- Show your solutions and methods on your exam papers.
- Don't ask any questions to the proctors.** If you think you don't clear any questions, you should make a decision by your own.
- There are 9 problems. You must do all of them.
- Can use any calculators.

Question	Full Points	Taken Points
1	20	
2	10	
3	15	
4	15	
5	15	
6	15	
7	15	
8	15	
9	20	
Total	140	

Assoc. Prof. Wanida Rattanamanee

Lecturer



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4. (15 points) From the case study of Chapter 1 : Ace Dairies, answer these following questions?

4.1 Describe the supply chain for milk.

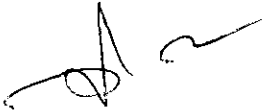
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4.2 Where does Ace Dairies fit into this? What specific activities from the logistics is Ace Dairies?

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4.3 What are the main problems that Ace Dairies has with logistics?

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5. **(15 points)** What are the main factors that encourage logistics to change? How is it responding to these pressures? What changes do you think there will be in the next decade?

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6. **(15 points)** J. Mitchell currently has sales of \$15 million a year, with a stock level of 20,000 pieces per year. Annual holding cost for the stock is \$25 per piece. Operating costs (excluding the cost of stocks) are \$12 million a year and other assets are valued at \$25 million. What is the current return on assets? How does this change if stock levels are reduced to 20% of sales?

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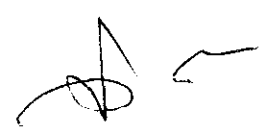
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7. (15 points) answer these following questions?

7.1 What is reverse logistics? Give 2 examples and explain how they have reverse logistics.

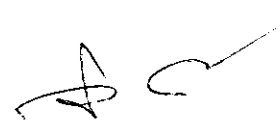
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7.2 What is global logistics? Give an example and explain how they are global logistics.

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7.3 What is green logistics? Give an example and explain how they are green logistics.

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8. (15 points) "MH means providing the **right amount of the right material** in the right condition, at **the right place**, at **the right time**, in **the right position**, in the right sequence, and for **the right cost**, by using **the right method(s)**." From the sentence, explain the meaning of the bold words

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9. (20 points) Five machines located in a manufacturing cell are arranged in a "U" configuration as shown in the layout below. The material handling system employed is a bidirectional conveyor system. Determine the best machine arrangement given the product routing information and production rates in the table.

