PRINCE OF SONGKLA UNIVERSITY
FACULTY OF ENGINEERING

Midterm Examination   : Semester II   Academic Year: **2006**

Date: **23 December 2006**   Time: **18.00-21.00**
Subject: **228-541 Industrial Pollution Control**   Room: **A203**

Instructions

– Please select and do the questions for total score 100 points

– Please use more space of paper behind each question

– All of documents and books are allowed for this subject

– Please fill your ID number or name in available space as mentioned

Score results

No	Full score	Point received
1	20	
2	20	
3	40	
4	40	
5	20	

Asst.Prof.Dr. Porntip Sridang

(ผู้ออกข้อสอบ)

ทุจริตในการสอบ โทษขั้นต่ำ คือ พักการเรียน **1** ภาคการศึกษา และปรับตกในรายวิชาที่ทุจริต

1.   *(20 points)* **Please identify the main problems occur and its affect to water quality** in water bodies of Thailand. **If supposes that you are a key person** who is responsible in policy and technical concerning to solve this problem, how do you make a plan or action to be taken?

2. *(20 points)* If you are the new CEO of one industry, which have to improve **<u>under the concept of pollution prevention by using CT</u>** . What are the procedures and protocols to be taken in action? And give one example of aspect using CT concept in the industry.

3. *(40 points)* Pig farming is a point source of agriculture pollution. It contains a large part of organic fractions (suspended solids and soluble fraction) and high nitrogen compounds. **Please give your ideas-reasons and recommendations of the possibility model or option of treatment plant (units and process selected) for wastewater discharged from such farming activities.**

4. *(40 points)* **If you are a professional operator who have to operate two wastewater treatment plants,** the first one is anaerobic digester for treating palm oil mill effluent and the second one is activated sludge process for treating effluent from the first one, **how do you set the working program for operating conditions, system controls and parameter analysis to evaluate the performance of systems?**

5. *(20 points)* From the secondary data of air quality situation in Thailand monitored by Pollution Control Department, **what are the major air pollutants and sources of air pollution problem? And Why? Please give your ideas and suggestions to solve this problem too.**