# 2021.02.09 QUIZ

10.40 AM – 12.20 PM

**Instruction**

1. Please read the question carefully, solve the problem **using MATLAB**.
2. Please use **Graphical Method** to solve the problem.
3. After you done, please submit to Aj. Diew email and cc to me dkoolpiruck@gmail.com, phakhawat.chu@gmail.com
4. The title is **QUIZ_LPP-610705040XX**
5. **Type answer** for question a. and b. in the email
6. Also **attach .m files** in the email

Feel free to ask me any time if you have question(s)

1. The Erlanger Manufacturing Company makes two products. The profit estimates are $25 for each unit of product 1 sold and $30 for each unit of product 2 sold. The labor-hour requirements for the products in the three production departments are shown in the following table.

| Department | Product 1 | Product 2 |
|---|---|---|
| A | 1.50 | 3.00 |
| B | 2.00 | 1.00 |
| C | 0.25 | 0.25 |

The departments' production supervisors estimate that the following number of labor-hours will be available during the next month: 450 hours in department A, 350 hours in department B, and 50 hours in department C.

a. Develop a linear programming model to maximize profits.
b. Find the optimal solution. How much of each product should be produced, and what is the projected profit?