

College of Industrial Technology
King Mongkut's University of Technology North Bangkok



Final Examination of Semester 1

Year: 2015

Subject: 341131 Electrical Drawing I

Section: 5-6

Date: 4 December 2015

Time: 13.00-15.00

Name..... ID..... Field of Study.....

Instructions

1. Cheating will result in failure of all classes registered for the current semester. Students who are caught cheating will also be denied registering for the following semester.
2. No documents are allowed to be taken out of the examination room.
3. Textbook, calculator and dictionary are NOT allowed.
4. No any electronic communication devices are allowed in the exam room.
5. The examination has 5 pages (including this page), 1 problem and a total score of 30 points.
6. Write all your answers on this exam sheet.

1. One-line diagrams of first floor and second floor plans are shown in Figure 1 and Figure 2, respectively. Draw control diagrams of the circuits for the floor plans. (30 points)

The 1st floor plan is as follows.

- kWh meter and Load center (LC) are installed.
- S1 controls L1 and L2, while L1 is connected in a parallel to L2.
- S2 controls L3.
- S3 controls L4 and L5.
- S4 and S5 control E1, E2 and L6.
- S6 controls E3 and E4.
- S7 (on 1st floor) and S8 (on 2nd floor) control E5.
- 2 plug sockets are installed.

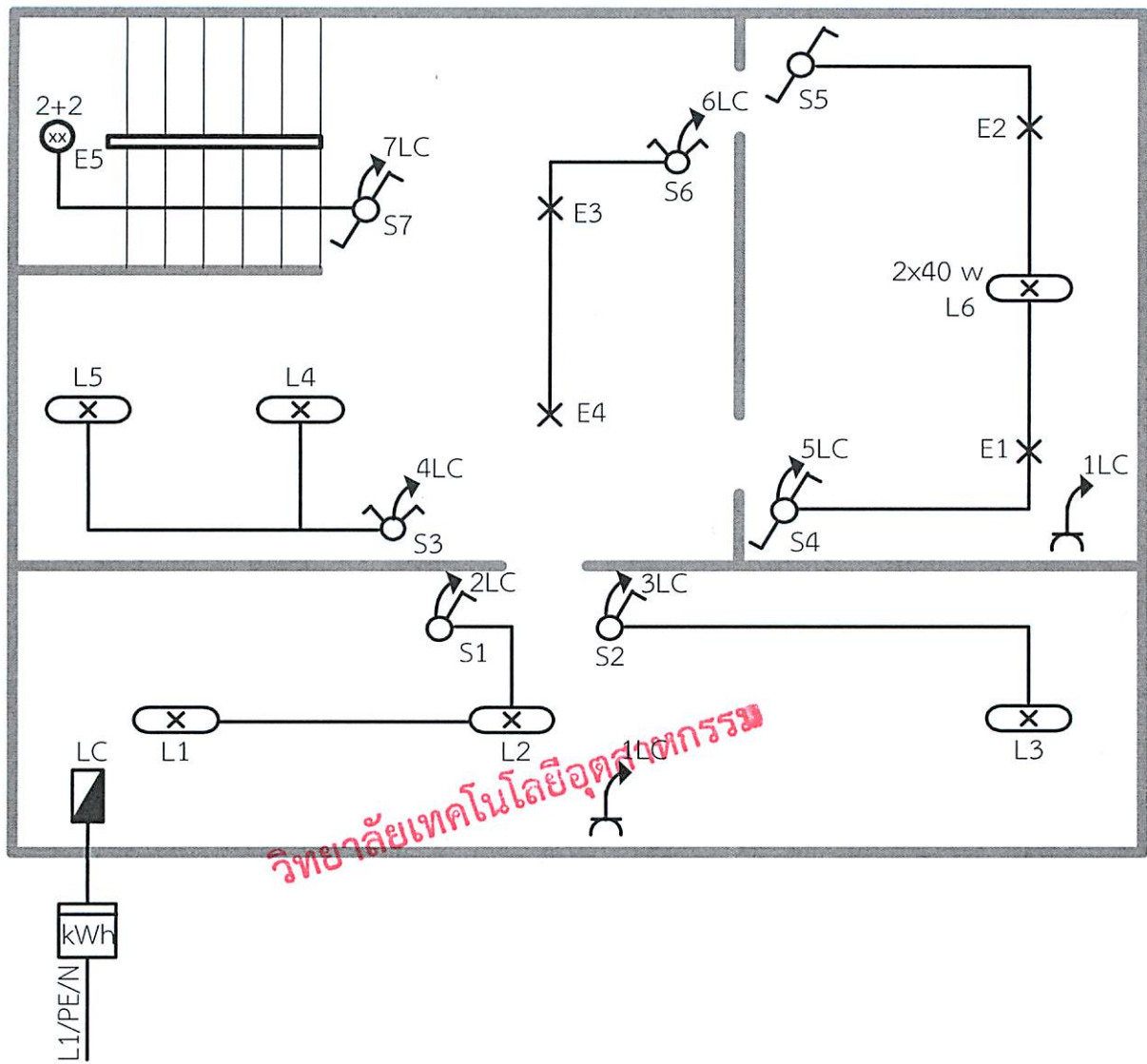


Figure 1: First Floor Plan

The second floor plan is as follows.

- S9 controls L7.
- S10 controls L8 and L9.
- S11 and S12 control E6 and E7.
- S13 controls E8, E9 and E10, while the lamps are connected in a parallel.
- 2 plug sockets are installed.

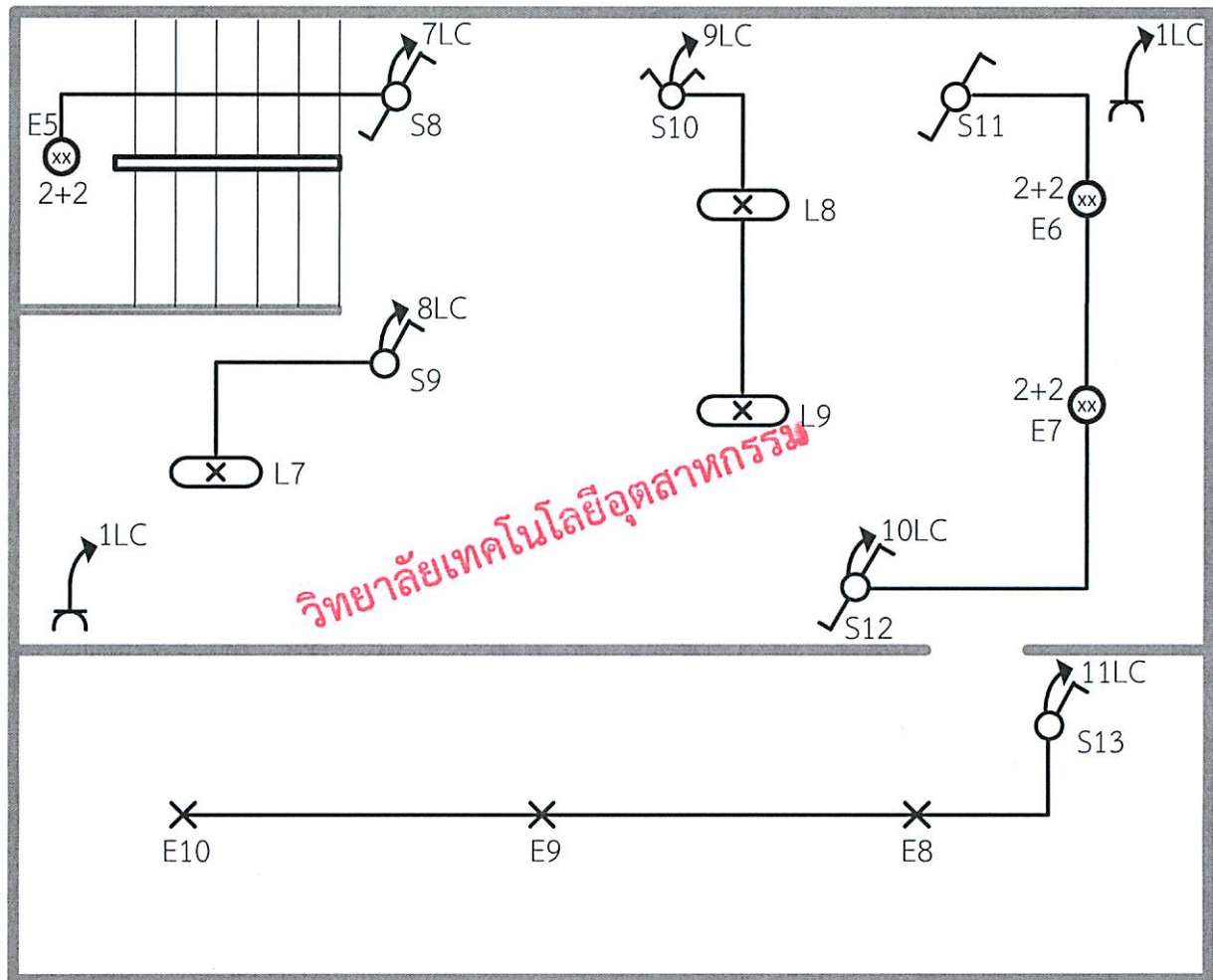


Figure 2: Second Floor Plan

Name..... ID.....

Control diagram of 1st floor plan (for 1LC-6LC)

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Name..... ID.....

Control diagram of 2nd floor plan (for 7LC-11LC)

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