FACULTY OF ELECTRICAL ENGINEERING

UNIVERSITI TEKNOLOGI MARA

40450 SHAH ALAM

ASSIGNMENT 1

SEMESTER : **NOVEMBER 2004 – MARCH 2005**

COURSE : **SELECTED TOPIC – PLC**

COURSE CODE : **KJE555**

LECTURER : **EN. MOHD HEZRI FAZALUL RAHIMAN**

INSTRUCTIONS TO STUDENTS

1. Complete this assignments using SYSWIN 3.4.

2. Use this page as cover page for your assignment.

3. Deadline for assignment submission: 1 MARCH 2005

Please write the following particulars.

NAME : _____

KP UiTM : ☐☐☐☐☐☐☐☐☐☐☐☐

ASSIGNMENT 1

The elevator shown in **Figure 1** employs a platform to move objects up and down. The global objective is that when the UP button is pushed, the platform carries something to the up position, and when the DOWN button is pushed, the platform carries something to the down position. The following hardware specifications define the equipment used in the elevator:

Output element:
M1 = Motor to drive the platform up
M2 = Motor to drive the platform down

Input element:
LS1 = Normally Close (NC) limit switch to indicate UP position
LS2 = NC limit switch to indicate DOWN position
START = Normally Open (NO) push button for START
STOP = NO push button for STOP
UP = NO push button for UP command
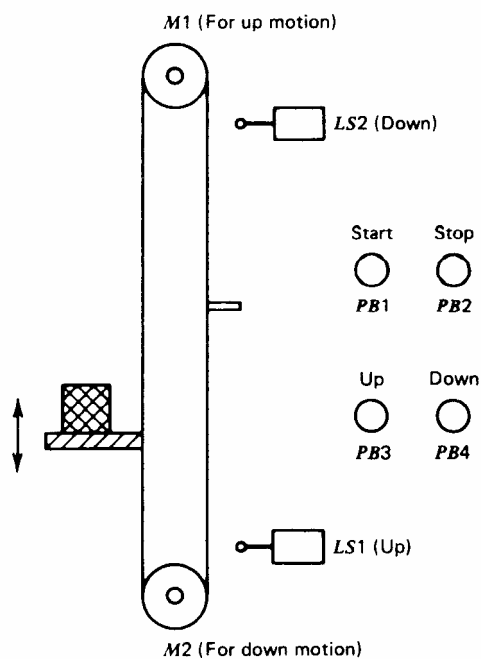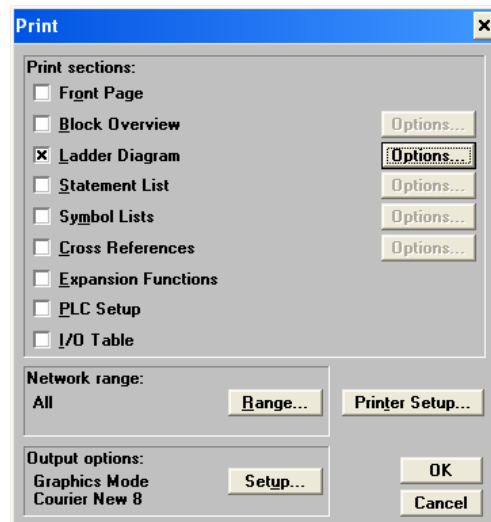DOWN = NO push button for DOWN command

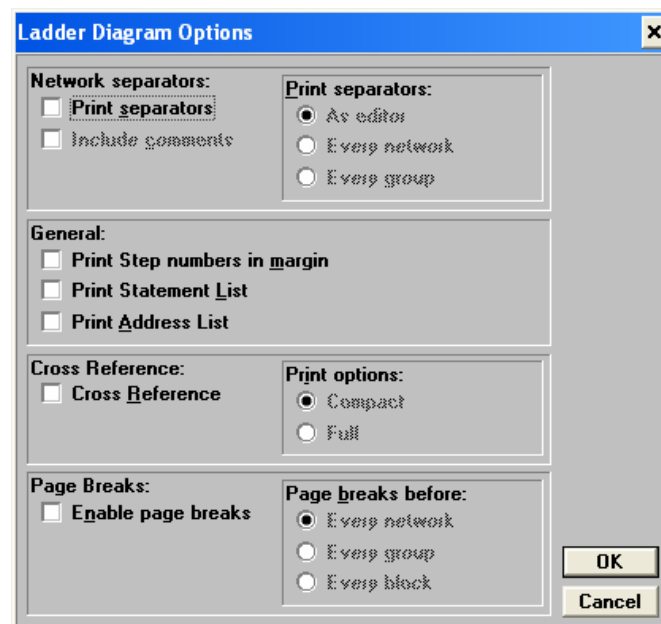**Figure 1: Elevator system for Assignment 1**

Prepare a programmable controller ladder diagram**.**

PRINTING GUIDE:

1. Click **Menu > Print**
2. Unchecked all check box except for **Ladder Diagram** as shown in the following figure.

3. Click **Options** button for Ladder Diagram section. Unchecked all the check box as shown in the following figure.

4. Click OK for Ladder Diagram Options and OK for Print menu. The printing result is as shown in the following figure.

```
      000.00              000.01              010.00
      --| |------+--------| / |--------------( )------
      START      |        STOP                CR1
      010.00     |
      --| |------+
      CR1


      010.00              000.02              010.01              010.02
      --| |---------------| / |---------------| / |--------------( )------
      CR1                 W                   VH                  CM


      010.00              000.03              010.06              010.03
      --| |---------------| / |---------------| / |--------------( )------
      CR1                 LS1                 VOUT                V1


      010.00              000.02              010.06              010.01
      --| |---------------| |-----------------| / |--------------( )------
      CR1                 W                   VOUT                VH
```