## Mohamed Cherif Messaadia University, Souk Ahras Faculty of Science and Technology

Department of Electrical Engineering

Subject: PLC Level: 3rd year



June 09, 2025 Duration: 01:30H Speciality: Control

### **Retake Exam**

## Correction of the exercise 1: (04.0 pts)

- 1. The cycle time of a PLC varies depending on: (1.0 pts)
- Program Size
- Calculation Complexity
- Number of Inputs/Outputs
- CPU Power
- Process Requirements

2. PLC programs are processed in a specific cycle, typically as follows: (1.5 pts)

- Input scan

- Program Processing
- Output Update
- External Communications
- Self-Diagnosis

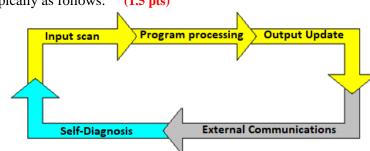


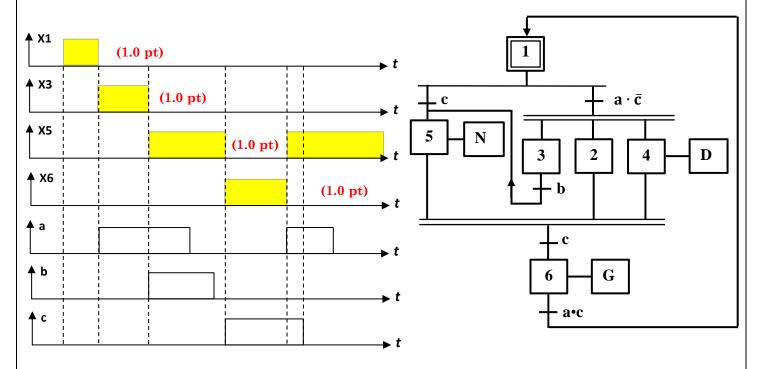
Figure 1. Operating Principle of a PLC

- 3. The main components that make up an automated system are: control part (CP), operative part (OP). (0.5 pts)
- **4. Sensors:** distance sensor, pressure sensor.

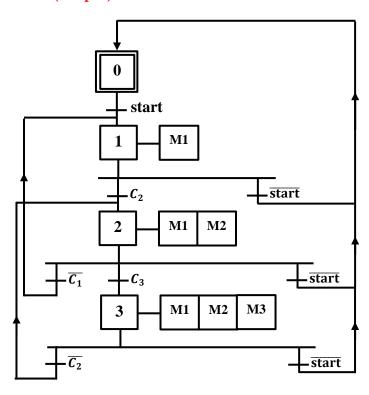
Pre-actuators: speed variator, relay.

**Actuators:** DC motor, cylinder, displayer. (1.0 pts)

#### Correction of the exercise 2: (04.0 pts)



## Correction of the exercise 3: (6.0 pts)



# Correction of the exercise 4: (6.0 pts)

