5.a Define preemptive maintenance protocols and early diagnostic maintenance protocols

Functional Area: QA

Assessment criteria	Knowledge
LO5a.1: Applies techniques of pre-emptive maintenance at mechatronic systems, realising operations and interpreting plans of maintenance. • Recognises different types of mechatronic systems, applying specific techniques of pre-emptive and/or early diagnostic maintenance. • Substitutes elements, configure and parameterize controllers and records the works carried out. • Uses CMMS software management for remote maintenance.	• Interpretation of plans of maintenance and documents of registry. • Maintenance and adjustment of mechatronic elements. • Machines, equipment, assembly devices, tools and resources employed at the maintenance. • Techniques and procedures for the replacement of simple elements. • Measurement and diagnostic equipment and techniques. • Use of digital management maintenance systems resources (CMMS) • Intelligent sensor for data acquisition (IIOT)
	Skills
	• Identifies the procedures described in a maintenance intervention plan. • Identifies equipment and items to be inspected based on maintenance schemes, plans and programs. • Select the right tools for maintenance. • Applies techniques of observation and measurement of variables in the systems to obtain data from the machine or the installation (noises, vibrations, levels, consumption, temperatures, flow, pressures, voltage, among others). • Compare the results with the set benchmarks. • Properly records detected anomalies and data required for machine history. • Apply the techniques for replacing the elements. • Assertively manages and simulates digital maintenance management software.
Maintenance Systems *IIOT-Industrial internet of things*	**Transferable skills**

	• Understand descriptions, specifications, manuals and other info typical of the profession in English and prepare them for the next phase of project/Customer in understandable manner. • Ability to communicate effectively, orally and in writing with "engineering" community and with "society", extrapolating concepts for "non-experts) through an abstraction approach.