

1. Mark the correct statements: *European Installation Bus (EIB)*

- ☐ has a centralized structure with linear, circular or branched topology
- ☐ has a decentralized structure with linear, circular or branched topology
- ☐ is a service provided over RS-485 bus
- ☐ is a service, which provides an interface between SCADA and BMS systems
- ☐ is a service provided over RS-232C bus

2. Complete the sentence!

$\left(\begin{array}{c} \text{EIB} \\ \text{EIA-485} \\ \text{Lon} \\ \text{RJ-45} \end{array} \right)$ is a serial communication standard defined in 1983 by EIA association. It is mainly used in industrial environment.

3. Assign the abbreviations to the corresponding definitions!

SCADA	Protocol Data Unit.
HMI	Supervisory Control And Data Acquisition
PDU	European Installation Bus
EIB	Human-Machine Interface



4. Choose the correct technology!

$\begin{pmatrix} \text{MEMS} \\ \text{PEMS} \\ \text{GEMS} \\ \text{MEADs} \end{pmatrix}$ achieves significantly higher speed and sensitivity compared with macroscopic approaches.

5. Mark the correct statements! *SCADA* contains:

- ☐ scripting language
 - ☐ communication with HW
 - ☐ SAP connector
 - ☐ connections to various networks
 - ☐ C# internal scripting language
 - ☐ remote terminals
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6. Choose the correct name!

$\begin{pmatrix} \text{Fuzzy} \\ \text{PDD} \\ \text{PID} \\ \text{SPI} \end{pmatrix}$ is a controller for efficient regulation used e.g. for AC or ventilation control in buildings.

7. Complete the sentence!

$\begin{pmatrix} \text{LED diode} \\ \text{Physical barrier} \\ \text{Semiconductor} \\ \text{Optical barrier} \end{pmatrix}$ evaluates whether an object is found in the path of a light beam or not.



8. Assign the types of actuators to the corresponding use cases

Two-position
actuators

control valve for gas supply to the burner gas furnace
or reducing valve

Actuators with
continuous output

electric door lock, contactor which by the temperature
decrease in a heater connects the heater to electrical
voltage

9. Select the correct option!

$\left(\begin{array}{l} \text{Lighting system} \\ \text{SCADA system} \\ \text{Control system} \\ \text{Transport system} \end{array} \right)$ is a device or set of devices, which manages and directs commands or controls the behaviour of other devices or systems.

