



State exam questions
Mechanical Engineering MSc
Production Engineering specialization

Production Process Optimization

1. Introduce the five main principles of Lean Management!
2. Define the meaning of 'Value Stream' and present the steps of Value Stream Mapping (VSM) methodology!
3. Introduce the structure of the Toyota Production System (TPS)!
4. What are the types of waste in the production processes (MUDA, MURA, MURI)? Please explain and give examples.
5. Introduce the main characteristics of the 'Push' and 'Pull' Production Systems!
6. Introduce the 14 Management Principles of lean organizations!
7. Define the meaning of SMED! Determine the main steps of the process!
8. Explain the following concepts: jidoka, heijunka, poke-yoke, kanban!
9. Introduce the following tools and methods: A3, 5 Why, 8D analysis, FMEA, Ishikawa diagram!
10. Introduce the 5S method, and explain its phases!