**Lean Engineering / Lean Management Postgraduate Programme**

**FINAL EXAM TOPICS**

**2023**

**Lean management**

1. Describe the essence, meaning, interpretation, principles and benefits of lean management.
2. Briefly analyse the history of loss reduction efforts (from Taylor to Shigeo Shingo).
3. Describe the philosophy of the Toyota Production System (TPS).
4. Describe the essence of loss analysis and the basic types of waste (Muda, Mura, Muri).
5. Analyse the classic sources of waste (Muda) and ways of eliminating them.
6. Describe the essence of the value stream and its analysis.
7. Describe the means of ensuring a continuous flow (takt time, line balancing, heijunka, cellular production, jidoka).
8. Describe the elements that define pull production (JIT, Kanban).
9. What are the tools of the stable operation principle (standard work, kaizen, 5S)?
10. Explain the relationship between the systems approach and the process approach based on the structure of the ISO 9001 and EFQM models.
11. Describe the 7 steps of problem solving. Give methods for each step!
12. What is the method of process analysis (7 steps of problem solving, cause and effect analysis)?
13. What is benchmarking and what methods are you familiar with? How does it relate to process management?
14. What are the components of the "Toyota House"?
15. What impact does Lean have on the suggestion scheme?
16. What is the role of SMED in the Lean management system?
17. How does process management relate to strategic planning?