



**State exam questions
Mechanical Engineering BSc
Operation and Maintenance specialization**

Diagnostics

1. Condition based maintenance, the role of technical diagnostics, main fields of technical diagnostics.
2. Using thermovision in technical diagnostics.
3. Using acoustics in technical diagnostics.
4. Using wear particle analysis in technical diagnostics.
5. Using non-destructive testing methods in technical diagnostics.
6. Application of vibration analysis in the maintenance of mechanical systems.
7. Commonly used measuring techniques and devices in vibration monitoring.
8. Fourier transform, vibration spectrum. Representation of vibration signals in time domain and in frequency domain.
9. Main types of machine failures that can be detected with measuring vibration.
10. Comparison of vibration measurement and shock pulse measurement.