# «Mechanics And Machines»
# **Final Exam**
## *Theory part*
## Variant: 1

1. Lower and higher kinematic pairs. Examples. Form and forced closed joints. The idea besides calculation mechanism DoF.
2. 3D printer. How does the printer print (FDM)? The guideline of printing process. The best practices for orienting part on a printer table.

# «Mechanics And Machines»
# **Final Exam**
## *Theory part*
## Variant: 2

1. Common types of drives (at least 5) Examples. Prof and cons.
2. Main difference between Theoretical Mechanics and Strength of Material courses in terms of concept. Common types of loads.

# «Mechanics And Machines»
# **Final Exam**
## *Theory part*
## Variant: 3

1. Types of synthesis of a mechanism. 3 general ways of solving methods.
2. Stress-strain curve. What the idea besides it? How can we modify it for a material?

# «Mechanics And Machines»
# **Final Exam**
## *Theory part*
## Variant: 4

1. What the key aspects should we consider during the motor chosing? The general guideline of the motor selection.
2. Screw types. Multisided screws, prof and cons. Type of drills. Type of holes. How to distinguish them on a blueprints?

# «Mechanics And Machines»
# **Final Exam**
## *Theory part*
## Variant: 5

1. What types of detachable connections do you know (at least 4)? Examples. Prof and cons.
2. Stress-strain curve. What the idea besides it? How can we modify it for a material?

# «Mechanics And Machines»
# **Final Exam**
## *Theory part*
## Variant: 6

1. What types of permanent connections do you know (at least 4)? Examples. Prof and cons.
2. ODE and PDE, difference. Boundary and Initial value problems. The main idea besides Finite Difference and Finite Element Methods.

# «Mechanics And Machines»
# **Final Exam**
## *Theory part*
## Variant: 7

1. Bearings. Types. Prof and cons. How to mount and dismount them. The idea besides locating and floating bearings.
2. ODE and PDE, difference. Boundary and Initial value problems. The main idea besides Finite Difference and Finite Element Methods.

# «Mechanics And Machines»
# **Final Exam**
## *Theory part*
## Variant: 8

1. Screw types. Multisided screws, prof and cons. Type of drills. Type of holes. How to distinguish them on a blueprints?
2. Common types of drives (at least 5) Examples. Prof and cons.

# «Mechanics And Machines»
# **Final Exam**
## *Theory part*
## Variant: 9

1. Stress-strain curve. What the idea besides it? How can we modify it for a material?
2. What the key aspects should we consider during the motor chosing? The general guide-line of the motor selection.

# «Mechanics And Machines»
# **Final Exam**
## *Theory part*
## Variant: 10

1. Iron - Carbon plot. Why do we need this plot? Aluminum and titanium. Prof and cons.
2. What types of permanent connections do you know (at least 4)? Examples. Prof and cons.

# «Mechanics And Machines»
# **Final Exam**
## *Theory part*
## Variant: 11

1. Types of manufacturing. At least 1 example for each type. Prof and cons.
2. Lower and higher kinematic pairs. Examples. Form and forced closed joints. The idea besides calculation mechanism DoF.

# «Mechanics And Machines»
# **Final Exam**
## *Theory part*
## Variant: 12

1. 3D printer. How does the printer print (FDM)? The guideline of printing process. The best practices for orienting part on a printer table.
2. Screw types. Multisided screws, prof and cons. Type of drills. Type of holes. How to distinguish them on a blueprints?

# «Mechanics And Machines»
# **Final Exam**
## *Theory part*
## Variant: 13

1. Main difference between Theoretical Mechanics and Strength of Material courses in terms of concept. Common types of loads.
2. Bearings. Types. Prof and cons. How to mount and dismount them. The idea besides locating and floating bearings.

# «Mechanics And Machines»
# **Final Exam**
## *Theory part*
## Variant: 14

1. ODE and PDE, difference. Boundary and Initial value problems. The main idea besides Finite Difference and Finite Element Methods.
2. Bearings. Types. Prof and cons. How to mount and dismount them. The idea besides locating and floating bearings.

# «Mechanics And Machines»
# **Final Exam**
## *Theory part*
## Variant: 15

1. Lower and higher kinematic pairs. Examples. Form and forced closed joints. The idea besides calculation mechanism DoF.
2. Types of synthesis of a mechanism. 3 general ways of solving methods.

# «Mechanics And Machines»
# **Final Exam**
## *Theory part*
## Variant: 16

1. Common types of drives (at least 5) Examples. Prof and cons.
2. What types of detachable connections do you know (at least 4)? Examples. Prof and cons.

# «Mechanics And Machines»
# **Final Exam**
## *Theory part*
## Variant: 17

1. Types of synthesis of a mechanism. 3 general ways of solving methods.
2. Types of manufacturing. At least 1 example for each type. Prof and cons.

# «Mechanics And Machines»
# **Final Exam**
## *Theory part*
## Variant: 18

1. What the key aspects should we consider during the motor chosing? The general guideline of the motor selection.
2. ODE and PDE, difference. Boundary and Initial value problems. The main idea besides Finite Difference and Finite Element Methods.

«Mechanics And Machines»

**Final Exam**

*Theory part*

Variant: 17

1. Types of synthesis of a mechanism. 3 general ways of solving methods.
2. Types of manufacturing. At least 1 example for each type. Prof and cons.

«Mechanics And Machines»

**Final Exam**

*Theory part*

Variant: 13

1. Main difference between Theoretical Mechanics and Strength of Material courses in terms of concept. Common types of loads.
2. Bearings. Types. Prof and cons. How to mount and dismount them. The idea besides locating and floating bearings.

«Mechanics And Machines»

**Final Exam**

*Theory part*

Variant: 10

1. Iron - Carbon plot. Why do we need this plot? Aluminum and titanium. Prof and cons.
2. What types of permanent connections do you know (at least 4)? Examples. Prof and cons.

«Mechanics And Machines»

**Final Exam**

*Theory part*

Variant: 5

1. What types of detachable connections do you know (at least 4)? Examples. Prof and cons.
2. Stress-strain curve. What the idea besides it? How can we modify it for a material?

«Mechanics And Machines»

**Final Exam**

*Theory part*

Variant: 4

1. What the key aspects should we consider during the motor chosing? The general guide-line of the motor selection.
2. Screw types. Multisided screws, prof and cons. Type of drills. Type of holes. How to distinguish them on a blueprints?