

**OFFICIAL LIST OF 17 JULY 2020 OF STATE EXAM QUESTIONS OF COMPUTER
AIDED PROCESS PLANNING**

1. Describe the block diagram of the conventional mechanical engineering, list of the advantages and disadvantages of this designing method. What is the trial and error method, describe its implementation in the design process?
2. What kind of design circumstances changes have led to the introduction of computer methods in the design process? Where and how can computer be connected to the conventional design block diagram?
3. Describe the logical steps of VEM in modeling of forming processes! Which material models are used in this area and what are the most important material parameters?
4. Describe the significance of the flow curve in the modeling of metalforming. Touch upon the methods for determining the flow curve (tensile test, Watts-Ford method) and explain them in detail.
5. How do you characterize the forming limit state in the area of sheet metal modeling? Outline a forming limit diagram (FLD) and name its specific areas. Describe the forming limit curve definition using the Nakazima method.
6. Describe the steps of a modeling process set-up in the AutoForm program, touch upon the purpose of each step and the decisions made there.
7. Describe the logical structure and set-up steps of AutoForm SPI. Describe the operation of the Traffic Light Concept that helps evaluation!
8. Describe the set-up of the connected thermo-mechanical model of the DEFORM program system! Touch upon the phenomena that connect each component. Describe the operation of the DEFORM Guided Templates modules.
9. Describe the logical steps of the NX Progressive Die Wizard and the workflow from the Initial Project to the Force Calculation step. Touch upon the operation of the assembly environment assigned to the Wizard!
10. Describe the orders of the Die Base and Die Design Settings in connection with the NX PWD die base design! Use sketches to describe the meaning and the choice of parameters of a general die base!
11. Use sketches to describe the strip lifting solutions and touch upon the planning steps of the correct strip lifting concept.

Miskolc, 06.07.2020

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