

English Language 1, INFORMATION TECHNOLOGIES IN MECHANICAL ENGINEERING: PRACTICE UNITS 1–8: QUESTIONS

	<u>PRACTICE UNIT 1</u>
1.	Describe the process of magnetic levitation and the functioning of the maglev train.
2.	Describe the advantages and downsides of the maglev technology.
3.	Explain the meaning of the words DRAG , RETRACTABLE and TO REPEL . Support your explanation with details from the text.
4.	Compare the benefits and shortcoming of maglev trains and high-speed rail (writing task).
5.	Present Simple (structure, use, provide example sentences, solving the tasks from the Practice Book)
6.	Present Progressive (structure, use, provide example sentences, solving the tasks from the Practice Book)

	<u>PRACTICE UNIT 2</u>
1.	Describe the historical development of CAD.
2.	Describe the SolidWorks software (history, functioning).
3.	Explain the meaning of the words SKETCH , PROTOTYPE and PIONEER . Support your explanation with details from the text.
4.	Describe the possible uses of Catia and nTopology for engineering purposes (writing task).
5.	Countable and uncountable nouns (definitions, provide examples, solving the tasks from the Practice Book)
6.	Quantifiers a little/little and a few/few (definitions, provide examples, solving the tasks from the Practice Book)
7.	Past Simple (structure, use, provide example sentences, solving the tasks from the Practice Book)
8.	Past Progressive (structure, use, provide example sentences, solving the tasks from the Practice Book)
9.	Past Perfect (structure, use, provide example sentences, solving the tasks from the Practice Book)

	<u>PRACTICE UNIT 3</u>
1.	Describe the development of the imperial and metric systems.
2.	Describe at least TWO interesting events from Newton's life.
3.	Explain the meaning of the words GALLOWS , BODKIN and PLAGUE . Support your explanation with details from the text.

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4.	Report on the importance of Newton's work for modern mechanical engineering (writing task).
5.	Type 0 conditional sentences (structure, use, provide two example sentences, solving the tasks from the Practice Book)*
6.	Type 1 conditional sentences (structure, use, provide two example sentences, solving the tasks from the Practice Book)*
7.	Type 2 conditional sentences (structure, use, provide two example sentences, solving the tasks from the Practice Book)*
8.	Type 3 conditional sentences (structure, use, provide two example sentences, solving the tasks from the Practice Book)*

*Odgovori na pitanja broj 5, 6, 7 i 8 podrazumevaju kombinovanje gradiva iz udžbenika (str. 38-39) i gradiva iz praktikuma (str. 36-37).

	<u>PRACTICE UNIT 4</u>
1.	Explain how hydrogen can be used as a fuel and define the essence of the three types of hydrogen.
2.	Define the term carbon footprint and explain how it can be calculated.
3.	Elaborate on the data from the text on the carbon footprint of richer and poorer countries and compare the mentioned countries.
4.	Report on the possibilities of reducing the carbon footprint of Serbia (writing task).
5.	Present Perfect (structure, use, provide example sentences, solving the tasks from the Practice Book)
6.	Present Perfect Progressive (structure, use, provide example sentences, solving the tasks from the Practice Book)
7.	Expressing the future in English (specific tenses/constructions, provide example sentences, examples, solving the tasks from the Practice Book)

	<u>PRACTICE UNIT 5</u>
1.	Provide the terms for geometric shapes and figures and provide adjectives derived from these nouns.
2.	Define what a triangle is and provide the definition of the Pythagorean theorem.
3.	State the types of triangles and provide their definitions.
4.	Define Appel and Haken's four-colour theorem and elaborate on its origin and computer-assisted proof.
5.	Discuss the role of artificial intelligence in modern mathematics and explain the work of the Lean community.

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6.	Explain the meaning of the words/phrases ABACUS , THEOREM and TO MINE . Support your explanation with details from the text.
7.	Elaborate on the importance of mathematics in the engineering profession (writing task).
8.	Tenses in context (solving the tasks from the Practice Book)
9.	Prepositions – revision (solving the tasks from the Practice Book)

	<u>PRACTICE UNIT 6</u>
1.	Describe the difference between ferrous and non-ferrous metals and provide examples.
2.	Describe what superalloys are and discuss their origin and properties.
3.	Describe in detail the use of superalloys in aviation.
4.	Explain the meaning of the words/phrases TO RETAIN , MELTING POINT and GOLDEN AGE . Support your explanation with details from the text.
5.	Elaborate on recent advances in materials science (writing task).
7.	Plural of nouns of Greek and Latin origin (specify the rules, provide two examples for each rule, solving the tasks from the Practice Book)*
8.	Passive Voice (specify the rules of forming the Passive voice, provide examples of the transformation of a sentence from Active into Passive in different tenses, solving the tasks from the Practice Book)**

*Odgovor na pitanje broj 7 podrazumeva kombinovanje gradiva iz udžbenika (str. 65–66) i gradiva iz praktikuma (str. 64).

**Odgovor na pitanje broj 8 podrazumeva kombinovanje gradiva iz udžbenika (str. 69–70) i gradiva iz praktikuma (str. 65).

	<u>PRACTICE UNIT 7</u>
1.	Elaborate on recent advances in joining processes in mechanical engineering (writing task).
2.	Explain the meaning of the words MACHINERY , COG and FLYWHEEL and provide one example of their use in their literal and metaphorical meaning.
3.	Explain the meaning of the words RUSTY and CLOCKWORK and the phrase NUTS AND BOLTS and provide one example of their use in their literal and metaphorical meaning.
4.	Comparison of adjectives (specify the rules, provide two examples for each rule, solving the tasks from the Practice Book)

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5.	Comparison of adverbs (specify the rules, provide examples, solving the tasks from the Practice Book)
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	PRACTICE UNIT 8
1.	Describe the difference in the functioning of a two-stroke and a four-stroke engine.
2.	Describe all the issues related to the use of cobalt in lithium-ion batteries.
3.	Elaborate on the possibility of switching to the batteries that use less or no cobalt at all.
4.	Explain the meaning of the words SHORTAGE , BY-PRODUCT and DEPENDENCY . Support your explanation with details from the text.
5.	Elaborate on recent advances in electric car development (writing task).
6.	Modal verbs (state the verbs, specify what they express, provide one example for each use, solving the tasks from the Practice Book)*
7.	Modal verbs – Passive Voice (specify the rule of forming the Passive Voice with modal verbs, provide two examples of the transformation from Active into Passive of a sentence containing a modal verb, solving the tasks from the Practice Book)

*Odgovor na pitanje broj 7 podrazumeva kombinovanje gradiva iz udžbenika (str. 87) i gradiva iz praktikuma (str. 81).