



Entrance examination for the academic year 2026/2027 - Bachelor's Degree Study Program

The complete wording of test questions – **Mathematics and Statistics**

1. The domain of a function of the form $f(x) = \sqrt{6x - x^2} + \ln(x^2 + 1)$ is equal to the set:
 - a) $\langle 0; 6 \rangle$
 - b) $(-\infty; 1)$
 - c) $\langle -6; 6 \rangle$
 - d) $(-\infty; \infty)$
2. The quadratic equation $x^2 + 4x + 4 = 0$ has solution:
 - a) $x = 2$
 - b) $x_1 = -1; x_2 = 2$
 - c) $x_1 = -2; x_2 = 2$
 - d) $x = -2$
3. Write the equation of the linear function that passes through the points $[0; -1], [2; 3]$
 - a) $y = 2x - 1$
 - b) $y = x + 2$
 - c) $y = x + 1$
 - d) $y = -x + 1$
4. There were two test questions chosen from two groups of possible questions. The first one is chosen from a group of 15 questions, the second one is selected from a different group of 20 questions. How many different pairs of questions in the test can be generated?
 - a) 300
 - b) 35
 - c) 150
 - d) None of the options
5. How many ways can five students be selected from a group of 10 students?
 - a) 252
 - b) 100
 - c) 150
 - d) None of the options
6. The function $f(x) = 6^x$ is on interval $(-\infty; \infty)$
 - a) increasing
 - b) decreasing
 - c) odd
 - d) even



The complete wording of test questions – Basic economic overview

1. The behaviour of individual entities in the economy examines:
 - A) microeconomics
 - B) macroeconomics
 - C) international economy
 - D) world economy

2. The law of _____ demand indicates the connection, when, with an increase of the price, the amount of demanded goods _____.
 - a. decreasing, decreases
 - b. increasing, is stable
 - c. decreasing, increases
 - d. increasing, decreases

3. GDP per capita measures:
 - a. economic output per person
 - b. the distribution of income between households
 - c. only the production of domestic firms abroad
 - d. the amount of government transfers to citizens

4. A country decides to impose tariffs on imported steel. What is the most immediate effect?
 - a. domestic steel becomes relatively cheaper
 - b. domestic consumers benefit from lower steel prices
 - c. imported steel becomes more competitive
 - d. domestic steel producers face lower production costs

5. An example of a public good is:
 - a. police private universities
 - b. housing services
 - c. cultural services

6. The European Union was established in:
 - a. 1st January 1993
 - b. 1st January 1983
 - c. 1st January 1973
 - d. 1st January 1963

7. Bank for International Settlements is also called:
 - a. The Bank of Banks
 - b. The Mother of Banks
 - c. The Main Bank
 - d. The Bank for Stability



The complete wording of test questions – English

1. The car _____ already.
 - a. has been sold
 - b. had been sold
 - c. was sold
 - d. sold

2. We strongly suggest _____ notes during the meeting.
 - a. taking
 - b. to take
 - c. take
 - d. to taking

3. They would need more space if they _____ more staff.
 - a. Hired
 - b. Hire
 - c. will hire
 - d. have hired

4. If she sends her order by email, we _____ the goods immediately.
 - a. will deliver
 - b. delivered
 - c. will not deliver
 - d. not deliver

5. Unfortunately, the unemployment rate _____ this year.
 - a. is rising
 - b. rises
 - c. rose
 - d. has rose

6. I would like _____ you to Ms Thomson, our new project manager.
 - a. to introduce
 - b. introduce
 - c. Introducing
 - d. introduced

7. They said they were looking forward _____ with us.
 - a. to working
 - b. to work
 - c. for working
 - d. on work