

Field of study: Economics and IT Applications

1st level studies

Questions for the field of study

1. Describe types of econometric models and deliver an example of the model that could be used for analysing a chosen economic phenomenon.
2. Define annuity and continuous payments. Give formula and the relationship between them.
3. Provide classification and general interpretation of basic summary statistics.
4. Describe stages of statistical hypotheses verification process.
5. Explain the approaches to valuation. What are the philosophical bases and information needed to use each of them in investment decisions?
6. Please describe what kind of market structure we can find in real economy. Please give examples of the markets.
7. List and explain the basic constructs of structured programming.
8. Optimal capital structure according to capital structure theories.
9. Components of financial statements and the scope of information that are presented in them.
10. Provide a description of the core functions of an accounting module.
11. Discuss differences between the funding and asset side of banks' balance sheets - main items, associated risks and maturity.
12. What are the benefits of using statistical packages?
13. Capabilities and limitations of computer simulation method in the analysis of the business.
14. Describe three main components of Decision Support Systems.
15. Does the capital structure affect the company's value and the cost of capital under the Modigliani-Miller theory?
16. Name at least three different types of information system used in organizations and describe one of them.
17. The essence of the company's financial liquidity. Indicators of its evaluation.
18. List and briefly describe major components of a typical database environment.
19. Characterise System Dynamics as a technique of continuous simulation.
20. What is information security and why is it important?
21. How would you value the cost of capital? What are the methods recommended in the finance literature?
22. Explain the meaning of statistical estimation in economics.
23. Describe the role and influence of information systems on enterprise functionality.
24. .
25. Based on WACC (weighed average cost of capital), ROIC (return on invested capital) and EVA (economic value added) when do we know that the company creates value?
26. What approaches to Artificial Intelligence are you familiar with? Explain the approaches, their advantages and disadvantages, and give examples of applications.
27. Describe steps of the extended Simon's decision making model.
28. The main objective, functions and instruments of the Central Bank.
29. What phases of the business cycle do you know? List them and describe their characteristics.
30. Describe sources of public revenues and their costs (collection, compliance, demoralisation, excess burden).

Module course: IT engineering in business

1. What UML diagrams are used in the IS analysis phase? Name at least four and describe the role and the basic concepts of one of them.
2. Discuss the 7 layers of the Open Systems Interconnection (OSI) reference model.
3. Describe concepts of usability and user experience design in the context of mobile applications.
4. Name and describe four concepts associated with object-oriented analysis and design.
5. Describe techniques used in process of designing mobile applications providing great user experience.

Module course: Market research methods

1. Describe types of formations technical analysis.
2. Name and describe criteria for evaluating quality of secondary data in marketing research.
3. Sources and methods of financing innovative projects.
4. Describe criteria for success of innovative projects funded by private sector.
5. Characterize quantitative and qualitative methods of supporting investment decisions.

Module course: Analysis and diagnosis in enterprise

1. Define the organisational life cycle and describe its stages.
2. Specify the basic business risk analysis methods used in financial planning and discuss one of them (application, disadvantages, advantages).
3. Define what is the risk management and what are the main tools used to control the risk.
4. Describe tools used to identification of risks in business.
5. What risk measures do you know about the evaluation of economic activity risk?

Module course: IT in business

1. What is the business process model and how it can be used for e-Business?
2. List and describe the basic behavioural tools in economics.
3. Concisely describe essence and importance of IT tools in marketing
4. What is a responsive web design, and what are its advantages?
5. What are the most effective digital marketing communication channels?

Module course: Real estate markets

1. Describe features of the real estate market.
2. What (and why) is the highest form of real property ownership?
3. Describe and compare methods of creating real estate management plans.
4. What is a Real Estate Appraisal?
5. Describe the tools supporting the work of a real estate agent.

Module course: Market and cooperation

1. Please justify what is more important for the economy as a whole and the single market: competition or concentration.
2. Theories of state intervention - the role, the nature and the objectives of the State and the relation of the State to the constituents of society.
3. Define what is common market in Europe and what is relation to 4 basic freedom of movements in EU.
4. Please tell us what methods you know to measure market concentration.
5. What reasons do you know for state intervention?