

Undergraduate diploma exam topics for students of Faculty of Information

Management [from ac.y. 2023/2024]

1. Discuss three selected schools of management thought.
2. Discuss three selected theories of leadership.
3. Present the concept of organization.
4. What is organizational culture and what factors influence it?
5. Characterize elements of the organizational environment.
6. Discuss the basic management functions.
7. Present selected strategic analysis methods (SWOT, analysis of Porter's five competition forces, BCG matrix).
8. Present the main differences between the functional and process approaches.
9. Present the elements of the marketing information system.
10. Discuss the concept of marketing mix.
11. Discuss the following market structures: monopoly, oligopoly, perfect competition, monopolistic competition.
12. Discuss the laws of elasticity of demand and supply.
13. Discuss the concepts of positive and normative economics.
14. Present two approaches to change management - kaizen and reengineering.
15. What is an algorithm? What requirements apply to algorithms? Give examples of a sequential algorithm and one that is not a sequential algorithm.
16. List and discuss the data types found in the object-oriented programming language Java. Include simple and complex types. Discuss the differences between them.
17. Discuss the basic differences between the imperative and declarative approaches in the context of programming.
18. Information versus data types. Present suggestions for encoding quantitative and qualitative information.
19. Discuss what kind of impact cloud solutions have on group work.
20. Discuss basic elements and meaning of entity relationship diagrams in designing a database schema.
21. Present the requirements for a database application.
22. Types of SQL queries - discuss types, syntax, and sample applications.
23. Describe the basic constructs of SQL language - DDL, DML, DCL and DQL.
24. Discuss the concept and application of the data warehouse.
25. IT systems used in management - discuss them on a selected example.

26. Discuss current trends in information systems used in management (SOA, mashup, cloud computing).
27. Discuss graphical ways of presenting qualitative and quantitative data.
28. Present statistical measures (position, dispersion, asymmetry and positional).
29. Discuss the measures of the dynamics of the time series (increments and indices).
30. Present a brief description of the plenipotentiary power.
31. What methods of concluding contracts do you know? Characterize one of them.
32. Discuss the concept of representation of a natural person, an entrepreneur and a commercial company.
33. Characterize commercial companies in terms of the liability borne by partners to third parties.
34. Indicate similarities and differences between a sole proprietorship, a civil law partnership and particular commercial companies.
35. Discuss the procedure for setting up a selected company.
36. Discuss the basic elements of the decision-making process and the general characteristics of individual types of decision support methods.
37. Discuss the concept of dynamical system stability and give its interpretation on the example of a selected physical system.
38. Identify the 6 most important project variables and discuss the interdependencies between them.
39. Explain, in your opinion, the most important of the 7 principles of the PRINCE2 methodology.
40. Explain project management concepts: stakeholder, baseline, milestone.
41. Explain the RAM matrix used in project management and the RACI-VS model used in it.
42. Discuss what human resources management is about.
43. Discuss the employee selection process.
44. List the basic sources of information used in marketing research. Give examples of these sources.
45. Introduce types of marketing research and discuss selection criteria.
46. Discuss methods and techniques for collecting primary information.
47. Discuss the study of demand and supply.
48. Present a study on market capacity and absorption.
49. List and characterize the functions of cost accounting.
50. Characterize the working capital cycle in the enterprise.
51. Discuss the Activity-Based Costing (ABC) as a management instrument.
52. Explain the concept of conceptual modeling.
53. Present the concept of the UML language and its application in creating information systems.

54. List and briefly discuss those of the UML diagrams that you think are most useful when developing information systems.
55. Explain why the use case model is considered crucial when developing an IT system.
56. Present segments of the country's financial system.
57. Present the basic institutions of the capital market in Poland.
58. Describe the functions of financial management of enterprises.
59. Characterize the main areas of enterprise finance.
60. Discuss the concept, goals and forms of financial analysis.
61. Explain the concept of the Business Process and its importance in software development.
62. Discuss a selected notation used in business process modeling.
63. What is an ERP system, and what are its key functions?
64. Discuss the application of an ERP system in the customer order fulfillment process.
65. Describe how an ERP system supports production processes in a manufacturing enterprise.
66. Explain how an ERP system supports supply chain management.
67. What is an MRP system? Describe its functionalities and operating principles.
68. What is the architecture of an ERP system and what are its basic components?
69. Discuss elements affecting the behavior of individual people in the organization.
70. Discuss factors affecting people's behavior in groups.
71. Discuss the concept of critical path and critical chain in project planning and implementation.
72. Present the goals and characteristics of the earned value method in the context of a project.
73. Present the role and content of the project charter and its role in the life cycle of the project undertaking.
74. Indicate the main features of the agile methodologies used to implement IT projects.
75. Describe the theoretical and practical aspects of total quality management TQM.
76. Define and characterize the costs of quality in the enterprise.
77. Describe the concept of the quality management system and discuss the types of documentation that is necessary for its implementation in the company.
78. Describe what methods and tools are used to evaluate and assess quality in the enterprise.
79. Discuss the kinds of attributes used in the class diagram.
80. Discuss the types of inheritance in UML.
81. Main methods of cooperation between IT teams and end users in agile projects.
82. Characterize markup languages and their uses.
83. CSS language - discuss the concept and application possibilities.
84. Preparing and conducting of usability testing with the participation of users.

85. Discuss the chosen methodology for conducting IT projects.
86. Characterize typical applications of business plans in practice.
87. Discuss the inheritance of copyright broken down into personal and property rights.
88. Discuss the types of loops available in the selected programming language.
89. Discuss the types of conditional statements available in the selected programming language.
90. Explain the concept of encapsulation in programming languages.
91. Explain the operation and use of the exception mechanism in programming languages.
92. Search engine optimization - meaning, basic elements affecting page position.
93. Discuss the RC low-pass filter.
94. Discuss Public key infrastructure (PKI).
95. What is the schedule in project management. Characterize schedule shortening technique.
96. What is risk? Discuss the basic stages of risk management in the project and types of risk responses.
97. Discuss the use of Business Intelligence systems in the enterprise.
98. Explain the concept of Data Mining.
99. Explain the concept of method overloading.
100. Collections - discuss the concept of collection, discuss the selected type of collection.