	Management and Marketing
1.	The concept and functions of management • What is the definition of management and what do the functions mean? What is the definition of a manager and what levels of management can we identify by classification? • Describe Mintzberg's classification of managerial roles: define categories and list the roles. • What are the three types of skills that managers need and what do they mean?
2.	Structural characteristics of organizations and main organizational structures • Explain the six elements of organizational design. • Define Simple, Functional, and Divisional structures, highlighting their strengths and weaknesses • Describe why the Team and Matrix structure are specific.
3.	Defining marketing • The value and scope of marketing. • The new marketing realities. New consumer and company capabilities. • Holistic marketing dimensions.
4.	Market segmentation • Segmenting consumer markets. • Effective segmentation. • Evaluating and selecting the market segments.
	Quality Management
5.	Formalized Quality Management Systems • General features and main principles of ISO 9001. • Sector-specific quality management systems in production. • Sector-specific quality management systems in services.
6.	Current Quality Management Trends • The relationship between Six Sigma, Lean Management and TQM. • Self-assessment and its role in the improvement of the organizational operation. • The main criteria of the EFQM model.
7.	Process management in practice • Basics of process management, process improvement models. • Possibilities to identify and describe processes. • Methods assuring the optimal, error-free implementation of processes.
8.	Quality management methods and tools • Classification of quality management tools. • Quality management tools for data collection and analysis related to processes. • Quality management tools focusing on failure analysis.
	Production and Operations Management
9.	Describe the most important forecasting methods and their practical applications. • Classification of forecasting methods. Basic components of the demand pattern. • Projective forecasting methods – methods used for forecasting constant demand, and demand with trend and seasonality. • Evaluation of the forecasting error. Monitoring the forecasting model (tracking signal).
10.	Describe what you learned about capacity planning and analysis. • Capacity definitions, most important capacity indices and their application. • Short-term capacity planning – difference between demand and capacity management, classical methods. • Application of the learning curves in capacity analysis – theory, conclusions.
11.	Describe the calculation of the economic order quantity in inventory management and the difficulties of the practical application. • Operation of classic inventory control mechanisms – application, similarities, differences. • Deterministic (EOQ, EPQ) and stochastic models (safety stock) in inventory management – the principles of the models, managerial decisions and challenges. • Discounts depending on the quantity ordered.
12.	How can aggregate production planning be done with linear programming, and what are the most important outcomes for management? • The basics of aggregation – levels, reasons, necessary information set, challenges • Management decisions based on the results of linear production planning models. Finding and evaluating the optimal solution. • Sensitivity analysis of objective function coefficients and right-hand side parameters.
	Project Management
13.	Traditional project planning methods, role of planning in project management, integration into the life cycle model. • Gantt chart, Harmonogram. • Effect of the sequence on total project time (job shop scheduling). • Impact of strectchable activities on the total project time, minimizing waiting time.
14.	CPM components, time analysis • Critical path. • Evaluation of results, floats. • Project crashing with Fondahl's method, criticisms.
15.	MPM components, time analysis • Evaluation of results, critical activities, floats. • Time analysis of maximal relationships. • Time analysis of stretchable activities.
16.	Resource planning and project monitoring • Purpose of resource planning, smoothing and allocation algorithms with constraints. • Project monitoring, range of data to be collected. • Forecasting methods (EVM indicators, S-curves).