FINAL STATE EXAMINATIONS: QUESTIONS BY TOPIC

N0413A050003 INNOVATION PROJECT MANAGEMENT
APPLIES TO STUDENTS WHO STARTED THEIR STUDIES IN THE ACADEMIC YEAR 2023/2024 AND LATER
VALID FROM: JUNE 2025

MASARYK INSTITUTE OF ADVANCED STUDIES CTU IN PRAGUE

Prague, December 12th2024

FIELD 1: ECONOMICS - tests students' mastery of the following courses objectives: Economics, Financial Management of Corporate Innovations, Principles of Sustainability.

1. Consumer Optimum and Demand. Cardinalist and ordinalist approaches. Consumer optimum for different types of goods. Effect of change in income on demand. Income elasticity of demand. Effect of price change on demand. Price elasticity of demand. Effect of change in price of other goods on demand. Cross elasticity of demand.
2. Production, cost, income and profit analysis. Choice and characteristics of technology in the short run and in the long run. Costs in the short and in the long run. Revenue in perfect and imperfect competition. Profit maximization in the short and the long run.
3. Output choice and price determination in different market structures. Perfectly competitive firm in the short and long run. Perfectly competitive market in the short and long run. Monopolistic firm in the short and long run. Price discrimination. Monopolistically competitive firm in the short and long run. Classical models of oligopoly. Game theory.
4. Microeconomic view of labour markets. Demand and supply in a perfectly competitive labour market. The functioning of a perfectly competitive labour market. Imperfect competition in the labour market on the labour demand side and on the supply side.
5. Microeconomic decision making in capital markets. Consumption and investment decisions in the context of capital markets. Methods of investment decision-making. The impact of inflation and risk on investment decisions. Equilibrium in financial asset markets. Capital goods markets.
6. Decision-making under risk and uncertainty. The concept and measurement of risk. Approaches to risk. Expected Utility. Risk optimisation. Risk mitigation. Decision making under uncertainty.
7. Market failure and microeconomic policy. Causes of market failures. The state as a corrector of market failures. Imperfect competition. Externalities. Public goods. Asymmetric information. Microeconomic policy instruments. Government failure.
8. Fiscal policy in the income-expenditure model. Two- and three-sector income-expenditure model. Multiplier effects in the two- and three-sector income-expenditure model. Government budget. Fiscal policy instruments and problems. Four-sector model. Determination of net exports.

9. Consumption, investment and the money market. Keynesian theory of consumption. Life cycle theory. Permanent income theory. Intertemporal choice model. Neoclassical theory of capital and investment. Tobin's q. Functions of money. Demand for money in Keynesian concepts. Demand for money according to the quantity theory of money. The supply of money.
10. Exchange rates and balance of payments. Types of exchange rates and exchange rate regimes. Exchange rate determination in the short run. Exchange rate determination in the long run. Balance of payments. Balancing mechanisms.
11. Fiscal and monetary policy in the IS-LM and IS-LM-BP models. The IS-LM model. The effectiveness of fiscal and monetary policy in the IS-LM model. IS-LM-BP model. Effectiveness of fiscal and monetary policy in the IS-LM-BP model. Degrees of capital mobility.
12. AD-AS model and monetary policy. Aggregate demand. Monetary policy instruments and problems. Monetary policy regimes. Aggregate supply in the short and long run.
13. Unemployment and inflation. Classical and Keynesian views of labour markets. Characteristics of unemployment and its curing. A short-run Phillips curve and a long-run Phillips curve. Types of inflation and costs of inflation. Disinflation.
14. Macroeconomic aggregates and economic growth. Basic economic aggregates. Methods of determining GDP. Sources of economic growth. Basic growth accounting equations. The Solow model. Endogenization of economic growth.
15. Financial management of a company. The role and function of financial management in the company. Short-term and long-term financial management. Principles of financial management. Financial objectives of the company and ways of achieving them.
16. Optimisation of the capital structure of a company. Costs of different types of corporate capital. Weighted average cost of capital (WACC) and its importance in financial management.
17. Investment decision-making in a company. Classical and innovative criteria for evaluating investment projects. Consideration of risk.
18. Evaluation of business performance. Standard and innovative methods of assessing business performance. Financial analysis of the company. Profitability versus economic value added.
19. Corporate financial strategy. Developing a financial plan. Short-term and long-term financial plan of a company.
20. Sustainability indicators. Structure, creation, sets and use. ECI, TIMUR and other indicators (construction of selected sustainability indicators).

21. UNESCO Sustainable Development Goals. Principles, Millennium Development Goals and Sustainable Development Goals (number, type, use, accentuation in current issues...).
22. Strategic Framework Czech Republic 2030. Development, contents, reports on the development of sustainability in the Czech Republic and the state's position on the issue to date.

FIELD 2: INNOVATION PROJECT MANAGEMENT - tests students' mastery of the following courses objectives: Strategic Management, Innovation Management, Innovation Project Management, Marketing of Innovations

1. Definition of the concept of strategy and strategic management (normative, descriptive). Strategy at different levels of the company structure (level of the corporation as a whole, level of strategic business units, level of professional/functional divisions). Different concepts of the subject of strategic decision making.
2. Strategic analysis of the external environment of the enterprise at the macroeconomic and sectoral level. Methods of strategic analysis and their critical evaluation.
3. Strategic analysis of the internal environment of the enterprise, methods used and their critical evaluation.
4. Typology of corporate strategies based on competitive advantage. Relationship between strategy, corporate organisation and value chain distribution (outsourcing, offshoring and re-shoring, strategic alliances).
5. International strategies used when entering a foreign market, strategies for creating the organizational culture of multinational corporations.
6. Creation of strategic documents in the private sector. Approaches, methods, time horizon, responsibilities and competencies. Internal and external analysis, content and scope. Vision and mission, global and strategic objectives.
7. Strategic development documents in the public sector. Hierarchy of documents, usual document structure at municipal level. Types of analyses. Types of objectives. Action plans and projects.
8. Invention vs. innovation, key innovation metrics, specifics of innovation projects. Innovation strategy and its impact on efficiency and competitiveness. Types of innovation and application on the example of a specific company.

9. Innovation project environment, key areas of innovation project management, stakeholders in innovation projects, stakeholders' mapping process, basic roles in the innovation project team, objectives of each role and their contribution to innovation delivery.
10. Innovation project management, its phases and processes in an innovation project. Specifics of agile and waterfall approach in project management. Scrum and kanban methodologies. Advantages and disadvantages of different approaches in the context of innovation projects.
11. Innovation processes and the enterprise size, the meaning and main forms of organizational innovation, organizational project: main specifics, example of organizational innovation in different types of enterprises.
12. Diffusion and adoption of innovation. Diffusion of innovation curve model, innovation adoption curve model. Factors influencing the diffusion of innovations and increasing their adoption rate.
13. Innovation projects in services, typology of services, key principles of excellent customer service (service blueprint). Customer and user (segmentation, targeting, differentiation and positioning). Innovation cycle in the context of different industries. Open and closed innovation.
14. Innovation projects in manufacturing and technology, main types of manufacturing innovation, internal and external sources of manufacturing innovation, advantages and disadvantages.
15. Effective planning and implementation of process innovation. Singular steps in process innovation, risk management and continuous performance evaluation of proposed changes. Principles of lean management.
16. Innovation design and its process (characteristics, stages, concept, prototype). Impact of innovation on sustainability and corporate social responsibility.
17. Basic types of research and innovation projects, main forms of public-private projects, and important criteria for public projects.
18. Economic aspects and methods for assessing the economic benefits of innovation. Main methods of evaluating the economic benefits of innovation. KPIs (Key Performance Indicators) and OKRs (Objectives and Key Results) and their importance in evaluating and monitoring innovation performance.
19. Marketing concept of a product, definition of the product, product life cycle, product portfolio management. The role of brand management in building brand equity. Value proposition.
20. Distribution and its strategies, distribution channels, point of sale. Advantages and disadvantages of different distribution channels.

The role of logistics and supply chain management from the manufacturer to the end customer.

21. Price from a marketing perspective, pricing strategies, pricing methods, objectives and factors in pricing. Application to a specific innovation.
22. Marketing communication, process, strategies and objectives of communication. Communication mix tools, media mix and its optimization. Advantages and disadvantages of different tools and media. The importance of integrated marketing communication (IMC).