

## FINAL EXAMINATION

### Regional and Environmental Economic Studies MSc

#### Questions of the final examination:

1. What are the main characteristics of the European economic space structure?
2. Describe the change of the regional differences within the enlarging and deepening European integration.
3. Describe the major geopolitical and geoeconomic trends of the international system.
4. Describe the most important territorial databases, methods for territorial statistical analyses.
5. Explain the basic concepts and operations of GIS, its application areas, advantages and possible difficulties; show the types of thematic maps along with the process and principles of how to make them.
6. Define the importance of firm locations and describe the essence of Location Theories.
7. Examine geographical agglomerations of economic activities and compare the commonalities and differences of 'Marshallian' industrial districts and the 'Porterian' clusters.
8. Explain the differences between the regional growth & development, and its relation with regional competitiveness!
9. Explain the concept of sustainable development describe the importance of the strict and weak sustainability.
10. The handling of externalities in economic theory.
11. The main types of natural and industrial disasters. Managing corporate environmental risks.
12. Concepts, approaches and changing forms of spatial planning.
13. What can urban planning and development do to support economic competitiveness and to tackle climate change.
14. The origin and major concepts of town planning in Britain.
15. Describe the main steps of strategic planning. Tell where projects are in the system.
16. Define the role and the main stages of project documentation.
17. Describe the major socio-economic challenges major metropolis areas face today.
18. Describe the major socio-economic challenges inner urban areas face today.
19. Provide an overview of the legal and institutional framework of the cohesion policy.
20. Implementation of cohesion policy programmes.
21. What are the possible motivations for companies to improve their environmental performance?
22. Describe the most important trends that characterise the sustainability efforts of large companies today!

## **Minimum requirements:**

Regional geographical divisions of Europe, debatable classified territories. Development division of Europe according to the space parameters: north–south (Roman Empire, religion, Sunbelt), west–east (Great Schism, Age of Geographical Discoveries, Industrial Revolution, Cold War, Central European Boomerang), core–periphery (BeNeLux, Blue Banana, Pentagon), country-level inequalities (effects of country border), urban–rural (post-socialist countries, turn of the 2000's).

Factors of European integration process after WWII. Beginning of the European integration: Treaty of Rome. 1st widening. Accession of Greece. German reunification. The gradually widening EU as synonym of Europe. The North Accession. „Reunification” of Europe. Further enlargements. Brexit. Economic impacts of enlargements on the European economic pattern.

Definition of geopolitics and geoeconomics. The multipolarization of the international order and the rise of the new actors (China, EU, BRICS, ASEAN). OBOR - China's development ambitions in 2010s. Characteristics of the international order characterized by the quasi-hegemony of the United States after the Cold War, sources of the geopolitical power of the US.

National and international territorial databases. Sources of primary and secondary data. Main differences between censuses and annual statistical databases. The 'good' territorial databases. Structure of territorial levels, the regarding indicators and their significance in the territorial researches. Main types (range- and standard deviation-typed indexes, measures for territorial distribution) and examples of indexes measuring territorial inequalities, the advantage and disadvantage of two from the examples. Methods for analyses of geographical relationship. Measurement of complex phenomena, the fundamental principles of complex variables and the area of their application. Types and rules of methods for graphic visualisation.

Database and data tables, geodata – vector and raster, with their properties –, coordinate systems, maps and layers, geographical information systems (GIS). Interactions with the map, examples of GIS functionality for data presentation and spatial analysis. Application areas of GIS (such as territorial analysis, regional development, urban planning, facility management). Advantages, for example, geography-based data interoperability and analysis possibilities, map visualization and interactivity. Difficulties such as data precision, completeness, resolution, timeliness, coordinate systems and character encoding. Types of thematic maps (choropleth, graduated and categorial symbols, chart map, multi-layer, etc.), design principles (proportional quantities, category boundaries, colours and symbology, map elements such as title, key, scale), a typical process of making a thematic map (design, data preparation, base map, spatial analysis, thematic layers, symbols and labels, refinement, layout).

Evaluate the importance of firm location in regional science and the main scope and types of location theories; introduce Thünen's, Weber's least cost theories (and their operation mechanism), and Hotelling's market-oriented location theory; Lösch and Christaller's approaches; Please evaluate the location strategies of MNCs and asses it in the framework of the micro-macro, hard and soft location factors matrix!

Introduction of the 'Marshallian' industrial districts: positive local externalities; the notion of agglomeration and its advantages; Types and evolution of industrial districts over time (case of North Italy); Factors of agglomeration in the New Economic Geography models; Place the 'Porterian' clusters into the framework of competitive advantages model; Evaluate Porter's cluster theory; Types of clusters (sectoral, regional/geographical, or horizontal/vertical).

Define the differences between growth and development; factors and indicators of growth; introduce the major (economic and non-economic) development factors of development. Neoclassical and Keynesian models of (regional) economic growth; Define the concept and measurement of regional competitiveness; Introduce the regional competitiveness index and the Pyramid model (by I. Lengyel) of regional competitiveness!

The principles of sustainable development. SDGs and their policy influence. Sustainability as wicked problem and its consequences.

A cost-effective share of abatement obligations among several polluters. The size of the Pigovian tax, The Coase theorem, environmental policy consequences of Pigou's and Coase's theories. The role of emission trading in climate policy.

The different types of risks. The risk perception, the importance of the technical and cultural rationality in risk management. The "black swan" phenomenon and its importance for the future of our Planet.

Min 1 definition or rationale of spatial planning, its changing role in the history. Different traditions (modes) of spatial planning in Europe. Dimensions of spatial planning in the planning map model, changes within these dimensions in the 21st century.

Connect elements of urban development to economic development or competitiveness. Min 3 areas of urban development (pillars), where climate change can be tackled.

Major issues of urbanisation in the 19th century. Techniques and measures of urban regeneration and amelioration of urban environment. Major concepts of early urban planning in the second half of the 19th century. Institutionalisation of planning in the early 20th century and major examples of town planning.

Strategy, strategic management. Environmental scanning (SWOT, PESTEL, basic capabilities and resources). Company diagnosis. Vision, mission. Levels of strategy. Actions, organisational functions. Definition of projects.

Project, project management process. Open and closed projects (call for competition). Project preparation, project starting documents. Awarding documents (call for competition). Completion documents (project control, norms). Project closing documents.

Urban sprawl, suburbanisation, polycentric spatial structures, gentrification of suburbs, edge cities and new urban forms on the peripheries. New spatial structure of economic production and services; effects of globalisation.

Urban blight, loss of economic and social functions, slums and ghettos, polarisation, gentrification, effects of globalisation, brownfield areas and transitional zones, traditional outskirts.

Main objective of the cohesion policy, thematic objectives, overall role of the policy in EU budget, key funding instruments (ERDF, ESF, CF), main institutional actors of shared management system, partnership principle.

Programme cycle, key features of financial implementation, audit, monitoring and evaluation, tools of result orientation in 2014-20 programmes, performance framework.

The role of legal requirements in improving the environmental performance of companies; risks & image; efficiency improvements; role of stakeholders such as customers, employees & investors.

The sustainability efforts of large companies. Broadening range of issues covered; measurement & target setting; reporting; standardization; extension of efforts to the whole supply chain.