

## PhD Examination Topics

### PhD in Political Economy, Micro- and Macroeconomics

#### **Part I – Microeconomics**

1. Essence, subject and tasks of Microeconomics. Positive and normative analysis. Methodology. Restrictions.

2. Utility and consumer preferences. Definition, suppositions, types of utility. Indifference curves, budget constraints and utility maximization. Direct and indirect utility functions, expenditure function, Marshallian and Hicksian (compensated) demand functions.

3. Choice. Changes in income – normal, inferior and luxury goods, Engel curve. Price changes: substitution and income effects, Giffen paradox. Supply of labour in terms of the theory of choice.

4. Market demand and elasticity of demand. Market demand curves – construction, generalization in terms of goods and customers. Elasticity of demand – types and application.

5. Types of asymmetric information. Ways of resolving the problems with adverse selection and moral hazard.

6. Production. Production functions – types and properties. Marginal product, isoquants and technical rate of substitution. Returns to scale and elasticity of substitution.

7. Analysis of costs. Cost minimization. Cost function, types of costs and graphic presentation. Short and long run. Changes in the prices of the factors of production. Conditional factor demand function.

8. Profits and supply. Revenues, costs and profit maximization.

9. Perfect competition. Demand, supply and pricing under perfect competition - short and long run. Efficiency and welfare under perfect competition. The effects of tax imposition and deadweight loss.

10. Imperfect competition. Essence and reasons for the existence of monopoly. Barriers to entry in an industry. Negative effects from monopoly – pricing and inefficiency. Splitting of markets and price discrimination.

11. Monopolistic competition – essence and pricing. Regulation of monopoly and protection of competition.

12. Game theory – basic principles, types of games and importance. Oligopoly – essence and types. Price leadership. Cartel.

13. Demand for factors of production. Marginal productivity of resources. Marginal revenue product. Derived demand. Changes in the factor prices. Land and rent. Economic rent.

14. Labour market. Time allocation and price of leisure time. Conclusions for the labour supply. Analysis of labour-unions – advantages and disadvantages. Monopsony.

15. Capital. Essence and classification of the capital. Present value and investment. Demand and supply of capital. Interest. Human capital – essence and meaning.

16. General equilibrium under **pure exchange**. Edgeworth box - contract curve, trade and core. Competitive prices and role of the auctioneer. Walrasian equilibrium and Pareto efficiency. Welfare maximization.

17. General equilibrium under production. Production sector. Production possibility frontier. Equilibrium and welfare under production. The Robinson Crusoe economy.

18. Externalities – essence and examples. Markets and efficiency. Social costs. Resolving of problems due to externalities. Regulation, taxes, fines. Property rights and Coase theorem.

19. Public goods. Characteristics, types and examples. Efficient provision of public goods. The free-rider problem. The theory of public choice. Disadvantages of government intervention in economics and economic efficiency.

## **Part II – Macroeconomics and Economic theories**

20. Essence, subject and tasks of the macroeconomic analysis. Basic concepts. Goals and instruments of the macroeconomic policy.

21. System of national accounts. Basic macroeconomic indicators. Measurement of economic welfare.

22. Demand for money. Motives for money demand. Baumol-Tobin model. General analytical macromodels for the demand for money. Factors influencing the money demand and their reflection in the analytical models.

23. Money supply. Analytic model of the money supply. Factors influencing the money supply and their reflection in the model.

24. Money market and monetary policy. Analytic model of the money market. Targets and instruments of the monetary policy under the conditions of a Central bank.

25. Currency board. Principles and functioning. Basic differences between a financial system based on a Central bank and a financial system, based on a Currency board. Advantages and disadvantages of the Currency board.

26. Goods and money market – equilibrium. IS-LM model. Velocity of money.

27. Aggregate demand. Aggregate supply and equilibrium under the labour market – classical approach. Aggregate supply and disequilibrium under the labour market – Keynesian approach.

28. General macroeconomic model - classical approach. Analytic formulation of the classical model. Basic characteristics of the classical macromodel. Consequences for the macroeconomic policy.

29. General macroeconomic model - Keynesian approach. Analytic formulation of the Keynesian model. Consequences for the macroeconomic policy. Comparative analysis of the classical and Keynesian approach.

30. Evolution of the macroeconomic models after Keynes. The Monetarists formulation of the quantity theory of money and monetarists' approach toward macroeconomics.

31. Inflation and unemployment. Phillips curve. Extended Philips curve. Natural rate of unemployment. Demand pull and cost push inflation. Conclusions for the macroeconomic policy.

32. Unemployment and employment. Measurement of and types of unemployment. Interdependence between growth and rate of unemployment. Okun's law. Real tendencies and economic consequences. The term "hysteresis".

33. Supply-side economics and macroeconomic policy. The Laffer curve.

34. Rational expectations hypothesis. Modern streams in macroeconomic analysis. Neoclassical and new Keynesian schools. Real business cycles theory. The Lucas critique.

35. The foreign sector of the economy in macroeconomic aspect. Factors and dynamics of the exchange rates. Fixed and flexible exchange rates. Open economy in the short run. Mundell-Fleming model.

36. Classical theories for economic growth in the long run. Harrod-Domar model. Conclusions for the macroeconomic policy.

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## References:

- Burda, M.; Wyplosz, Ch.; Macroeconomics: A European Textbook; Oxford University Press.
- Hal R. Varian, Intermediate Microeconomics, A Modern Approach, third edition, W.W. Norton & Company, 1991.
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- J. Perloff, K. Veld, Modern Industrial Organization, Harper Collins College Publishers, 1994.
- Mankiw, N.; Macroeconomics; Worth Publishers.
- McCallum, B.; Monetary Economics Theory and Policy; Macmillan Publishing Company.
- R. Pindyck, D. Rubinfeld, Microeconomics, Macmillan Publishing Company, 1989.
- Samuelson, P; Nordhaus, W; Macroeconomics, McGraw-Hill Book Company.
- W. Nicholson, Intermediate Microeconomics and its Application, fifth edition, The Dryden Press, 1988.