FACULTY OF ELECTRICAL ENGINEERING CTU IN PRAGUE

P0222D120033 DSP (PhD Study Program) History of Sciences and Technology

Subject Areas for Questions to Be Posed at State PhD Exam

HISTORY OF SCIENCES AND TECHNOLOGY

The following subject areas in particular make up the conceptual linchpins of the branch History of Sciences and Technology:

1) Historiography, theory and methodology of the branch

Historiography of science and technology and their theories and methodologies in the Czech and European context

Insight into new historiography and its impact on the Czech historiography of sciences and technology

Memoirs and recollections of scientists or technicians as a historical source

Memory of technology (demonstrated on selected examples)

Science and technology as active factors figuring among statics, dynamics, society´s intellectual and economic potential

Formation and transformations of collective values and group mentalities in science and technology

Historical roots of science and technology in the Czech lands

2) Development of science and technology in contexts – thinking of science and technology

Forms and dynamics of institutional technological development of the Czech society

History of science in the 17th – 20th centuries

History of technology in the 17th – 20th centuries

History of technology – key development processes, development trends and comparison of technological developments in the Czech society and in the world

Technical manifestations in everyday life from the 18th to the 20th century

Microhistory within the history of technology (exemplified by Business History)

Entrepreneurs as a subject of historical research focused on technical branches

Leading businessmen in electrical engineering in the Czech lands and in Czechoslovakia

Economic and social history of the 18th – 20th centuries relating to science and technology (development tendencies)

Development of individual technical branches in the Czech lands and their research trends

3) Technical universities and scientific institutions and unions and their developments

Development of technical universities and technical high schools, especially between the 18th and 20th centuries

University and science policy (18th – 20th centuries)

Development of learned societies (unions) and development of scientific and technical institutions as a basis for professional growth of technicians during the 19th and 20th centuries

Technicians´ life and unions during the 19th and 20th centuries

Personalities of professors and distinguished scholars (shown on typical examples)

Science and technology as reflected in the culture in the Czech lands and in the Central European region

4) Transfer and innovations in scientific and technological developments

Transfer (interdisciplinarity) of technical innovations since the mid-18th century

Technical elites in Central European space in the 19th and 20th centuries, their development and impact on transfer

Technocracy in the Czech lands 1900–2000 and application of the transfer of technological knowledge and findings

Effective transfer of technologies into industrial practice (demonstrated on selected examples, standardization, levelling out of technological standards, and development of public and commercial databases)

Transfer of licenses and patents in the scientific and technological sector in the 19th and 20th centuries

Technological auctions, developments of world industrial and technological exhibitions since 1851 (up to the present)

Development of the management of technological innovations (science-technology parks, commercionalization of new technologies)