



BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS
Faculty of Architecture
Department of Mechanics, Materials and Structures

QUESTIONS OF
THE GLOBAL IN STRUCTURES EXAMINATION
ORAL PART

DESIGN OF LOAD-BEARING STRUCTURES

1. Loads and effects on load-bearing structures. Limit states. Safety.
2. Modeling the structures. The de Saint-Venant principle.
3. Steel structures.
4. Timber structures.
5. Reinforced concrete structures.
6. Masonry structures.
7. Sandwich-structures and the properties of thin-walled beams.
8. The behavior of slabs made of different materials.
9. Principles of the design against earthquake effect.

SPECIAL LOAD-BEARING STRUCTURES

1. The load-bearing behavior of arches.
2. The load-bearing behavior of surface-structures.
3. The edges and supports of shell structures.
4. Construction and geometry of shell structures.
5. Tent structures.
6. Cable structures.
7. Spatial trusses.
8. Designing large-span structures.
9. Designing tall buildings.