Monolithic RC structure

Design monolithic reinforced concrete structure above the 1st floor of multi-storey building of the warehouse according to the attached scheme of the construction. Design the structure according to ČSN EN 1990, ČSN EN 1991 and, ČSN EN 1992-1.

Class of effects (reliability): CC2 (RC2) pro odd n, CC1 (RC1) pro even n,
Degree of environmental aggression for inner structures: XC3, XC1
Degree of environmental aggression for outer structures: XC3 for all

Characteristic value of variable load for main room in kN/m²:
6,0 6,5 7,0 7,5 8,0

Characteristic value of variable load for corridors and staircase in kN/m²:
4,0 4,5 5,0

Grade of concrete:
C20/25  C25/30
Grade of steel:
B500B  B550B

Basic dimensions:
A = ............ m,  B = ............ m,  C = ............ m,  D = ............ m,
E = ............ m  F= ............ m,

Construction height: KV = ........ m

Required annexes of the project:
1. Project specifications.
2. Preliminary design – design of the dimensions and the shape of the construction including identification of elements (1:100).
3. Static calculation:
   - floor slab above the corridor – D1 (including scheme of reinforcements)
   - continuous floor slab – D2 (including scheme of reinforcements)
   - T-beam – T1 (including scheme of reinforcements)
   - lintel above the door – P3 (including scheme of reinforcements)
4. Drawings: drawings of reinforcement of calculated members 1:20 (including the bill of reinforcement)

Terms of corrections: according to lecturers instructions
Terms of delivering: in the 12th week

Date: .................................................. Lecturer: ..............................................