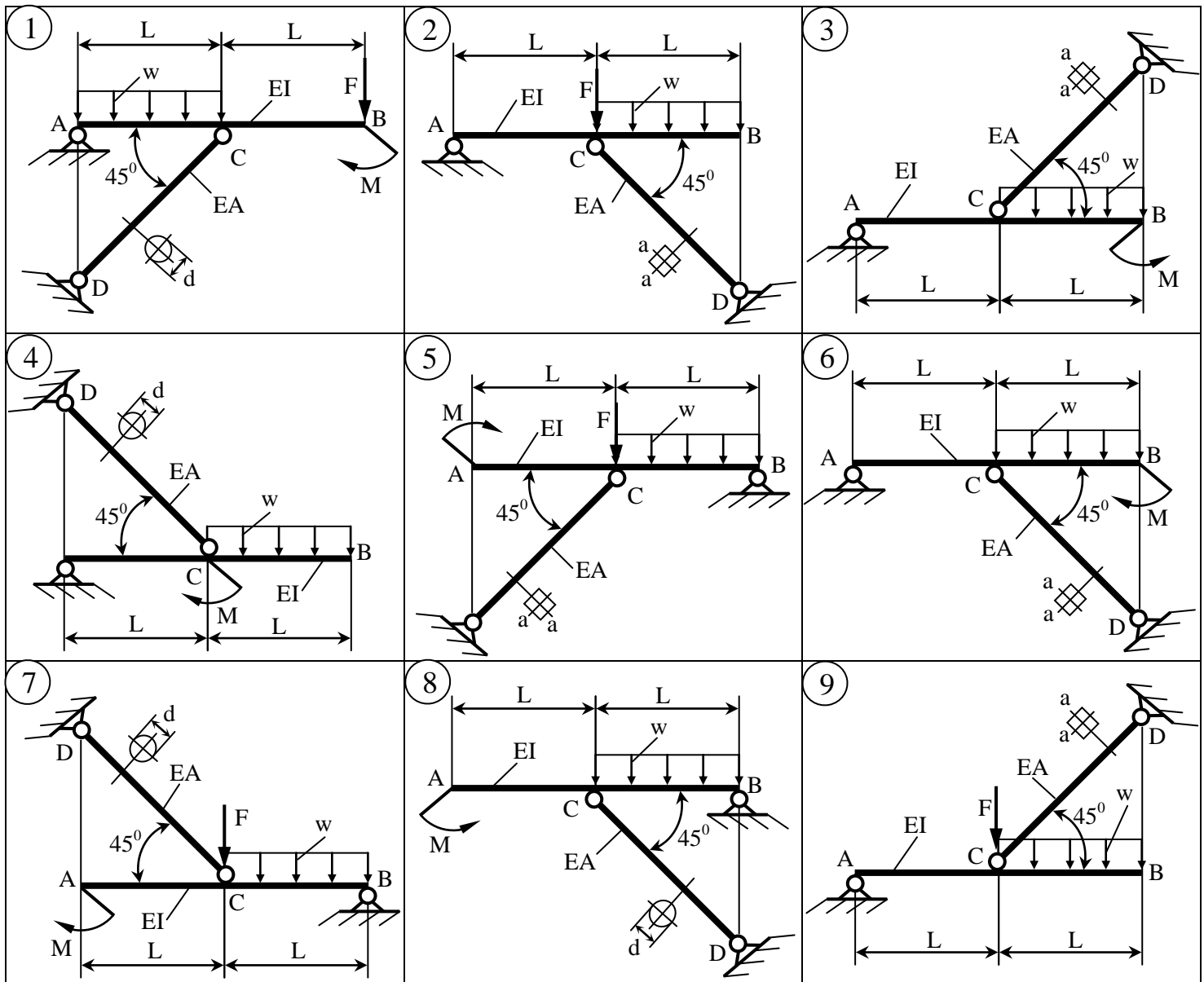


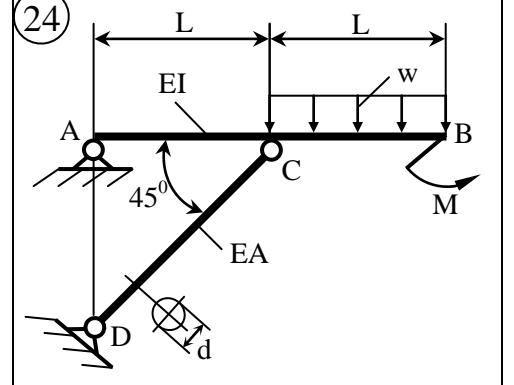
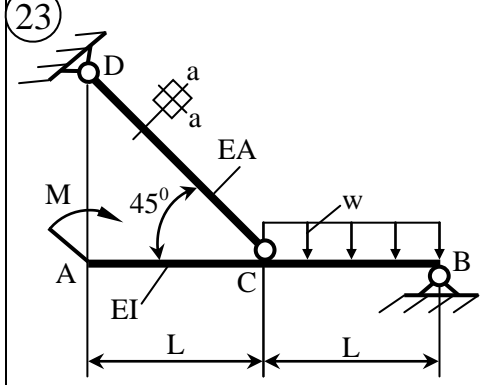
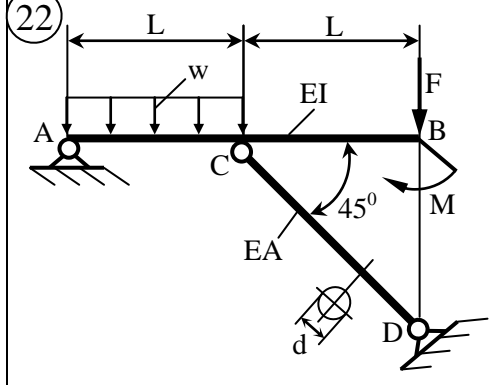
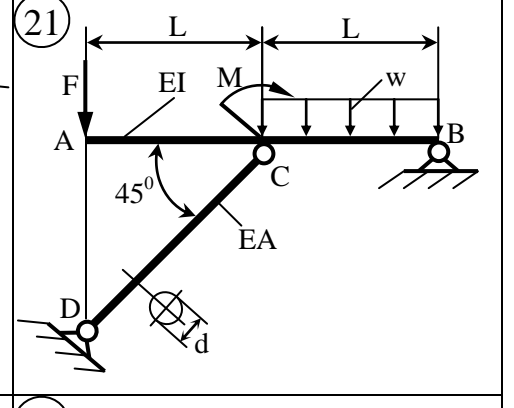
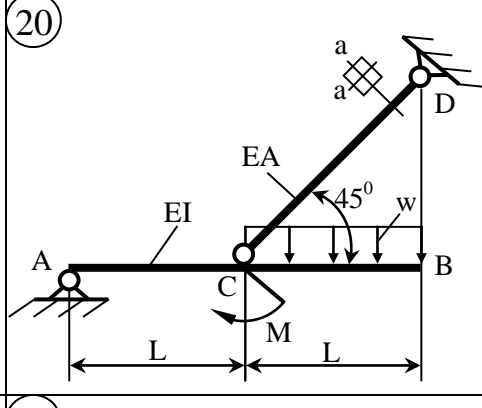
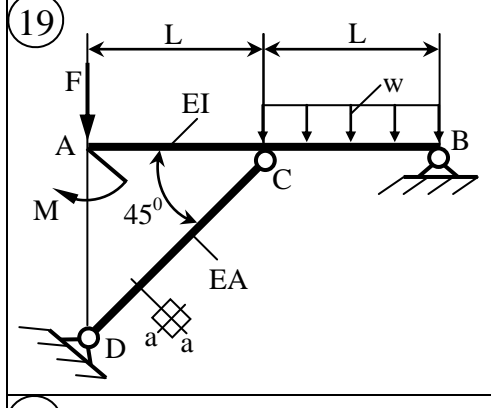
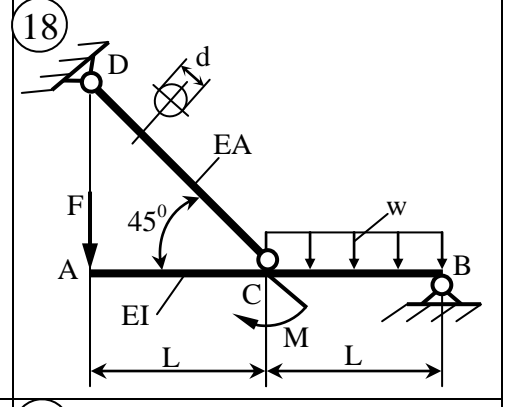
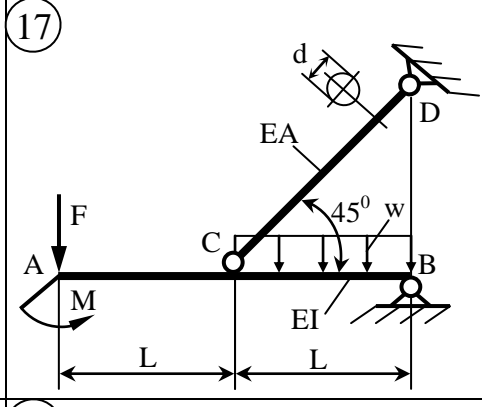
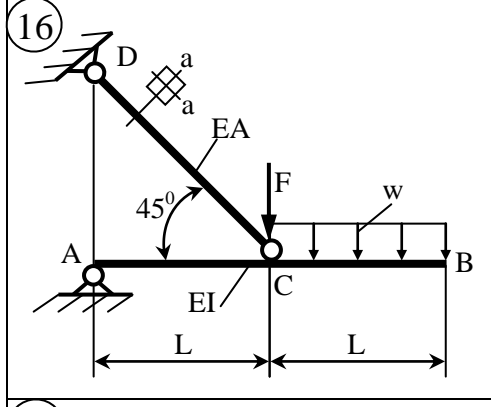
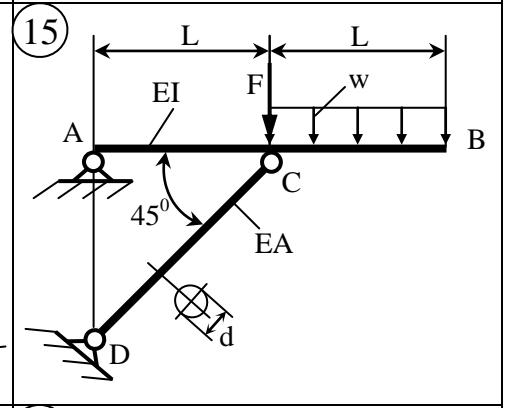
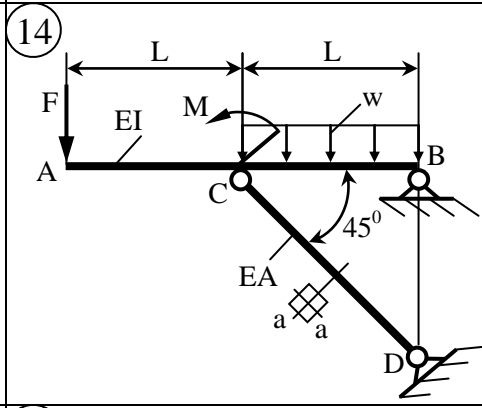
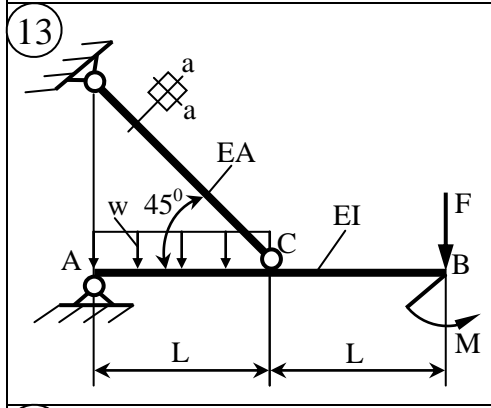
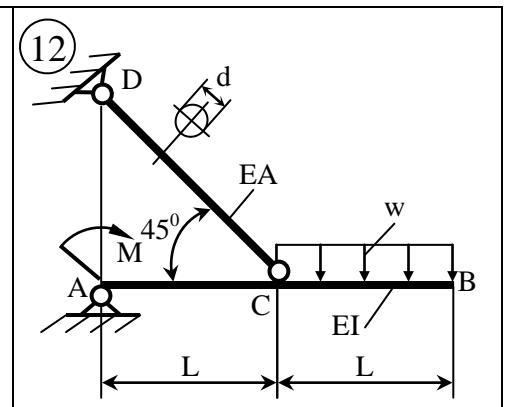
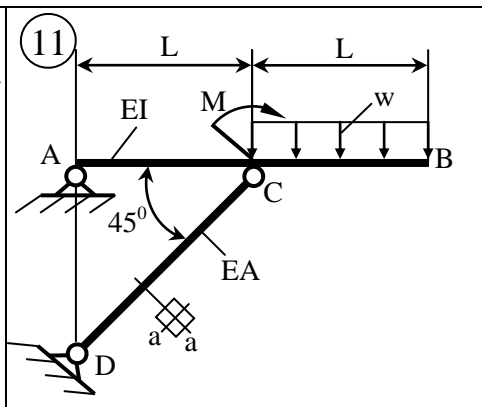
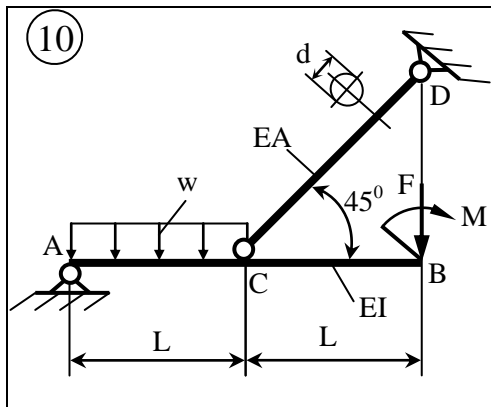
COURSE WORK No. 1

A steel structure is loaded as shown. Knowing M , w , L and F from the table below do the following:

- draw the internal forces diagrams for the beam AB and the rod CD;
- design the rod CD if $\sigma_{all} = 100$ MPa;
- design the beam AB if $\sigma_{all} = 125$ MPa and the cross section of the beam is IPE DIN 1025-5:1994. Neglect V_y internal force;
- plot the stress distribution in the critical section of the beam and the rod.

Variant	L [m]	w [KN/m]	F [KN]	M [KNm]
1	1,2	10	16	2
2	1,4	12	18	4
3	1,6	14	20	6
4	1,8	16	22	8
5	2,1	18	24	10
6	2,3	20	26	12





L

