

Allowed Tables and Charts: (None or e.g. Steam Tables)

Answer all the following Questions

Q (1) [20]

- Explain the different types of the nonlinearities
- Find the equations of buckling loads for the given two members in Fig. 1.

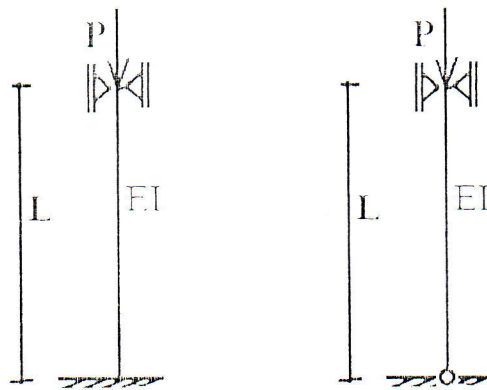


Fig. 1

Q2[20]

Find the determinantal equation of prevented of sway buckling load for the two bays frame shown in Fig. 2.

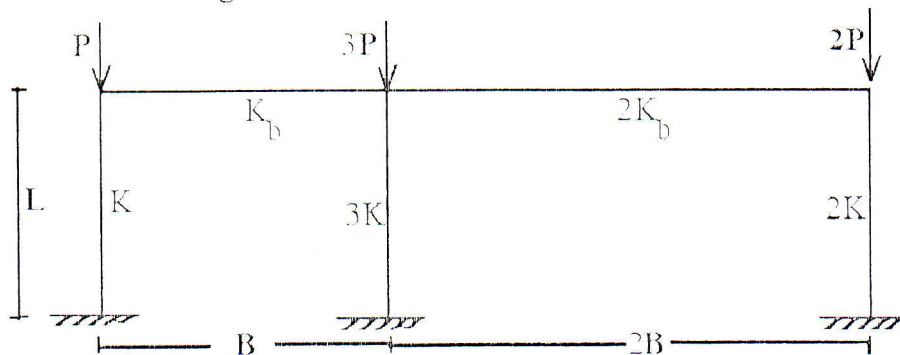


Fig. 2

Q3[20]

For the three stories frame from family B shown in Fig. 3, find the determinantal equation of prevented of sway buckling load (anti-symatric).

Q4/20/

For the two stories frame shown in Fig. 4, find the determinantal equation of prevented of sway buckling load.

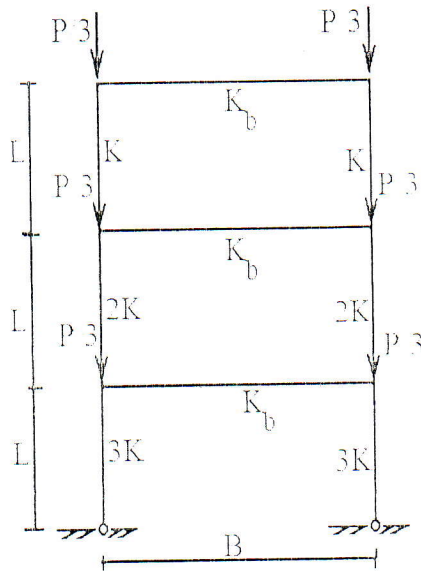


Fig. 3

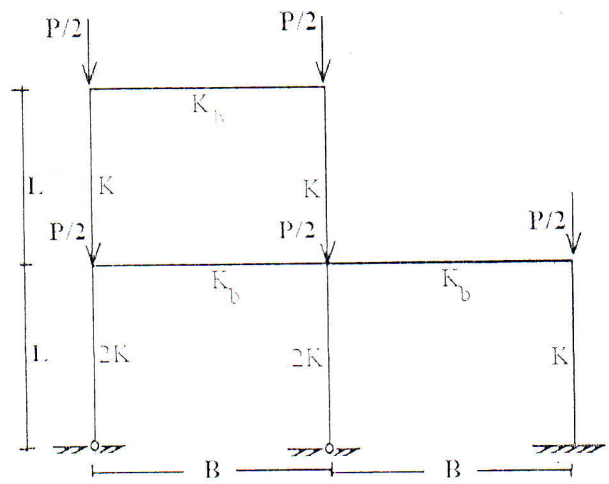


Fig. 4

Q5/20/

Find the equation of the sway buckling load for the two story frame given in Fig. 5 when the axial stiffness of the tie is infinite. Also, find the equation when the axial stiffness of the tie is zero.

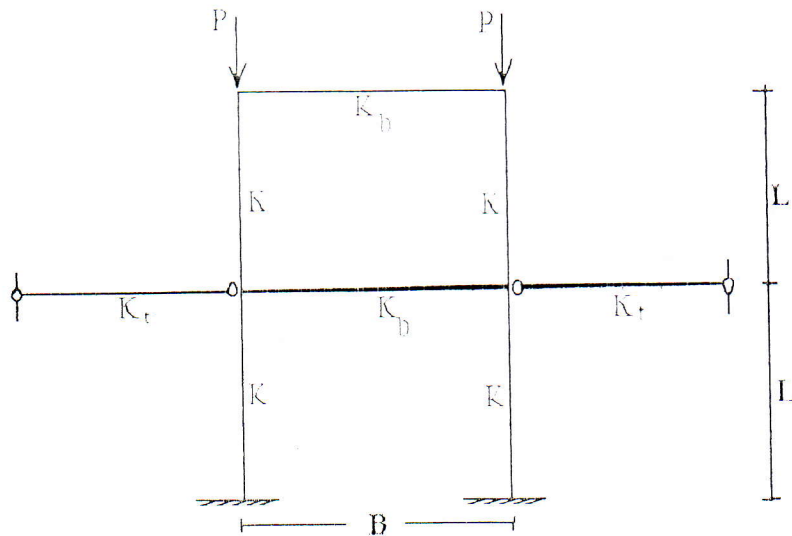


Fig. 5