

Fig.1

SECTION-B

Q2. Compute influence line ordinates at intervals of 5m for the following force components for the beam shown in figure. EI is constant throughout.

- Reaction R_A ,
- moment at mid point of span BC,
- moment over support B

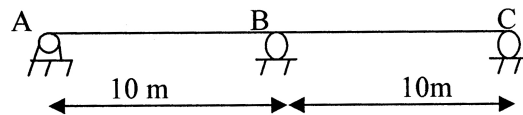


Fig.2

Q3. Analyse the beam shown below by using three moment equation and draw the bending moment diagram.

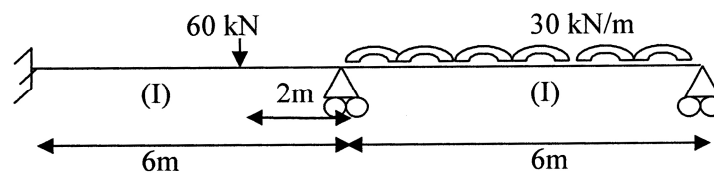


Fig.3

Q4. Analyse the continuous beam shown below by moment distribution method and draw B.M and S.F diagrams.

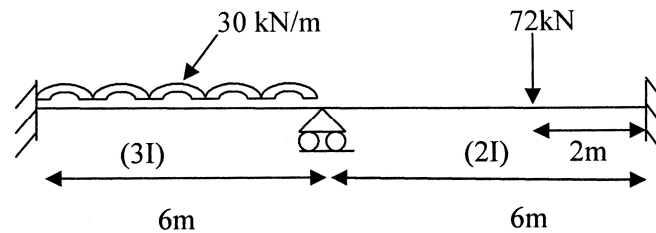


Fig.4

Q5. Analyse the frame shown below by slope deflection method and draw B.M.D.

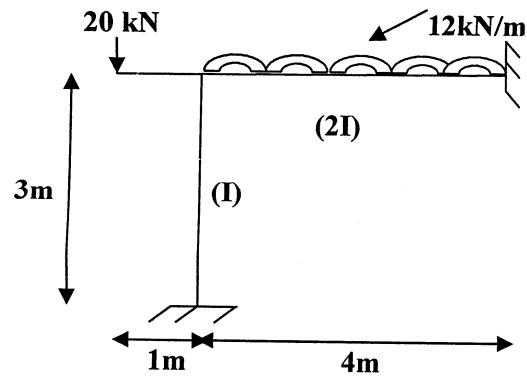


Fig.5

Q6. Show that the parabolic shape is a funicular shape for a three hinged arch subjected to a uniformly distributed load over to its entire span.

SECTION-C

Q7 Analyse the frame shown in figure by cantilever method. Area of each exterior column is one and half times that of the area of the interior column.

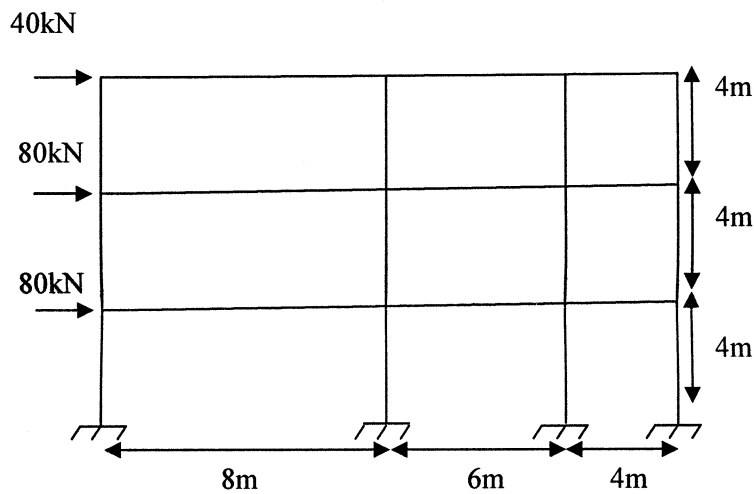


Fig.6

- Q8 Using Kani's rotational contribution method, analyse the frame. Moment of inertia of the members are shown in brackets.

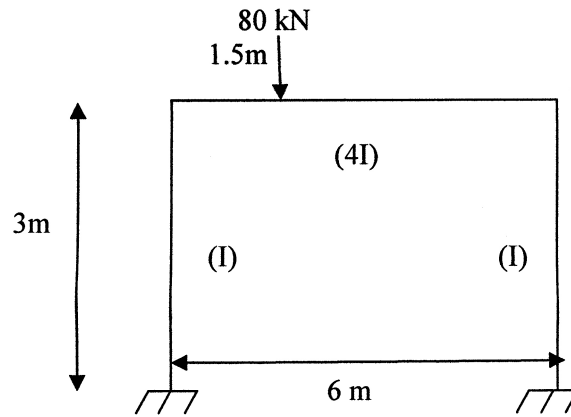


Fig.7

- Q9 Analyse the truss shown in figure by consistent deformation method. Assume that the cross sectional area of all the members is same.

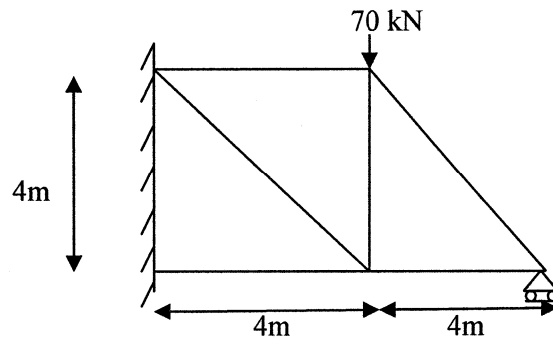


Fig.8