Chapter 7

Q1. What is push over analysis? Write down the steps involved in push over analysis.

Q2. For the following of a two bay, two storied frame, perform pushover analysis and draw pushover curve, capacity curve and demand curve using SAP 2000.

   i)  RCC frame with two bay and two storied
   ii) Floor to floor height is 3.6m and bay width is 4m
   iii) Reinforcement – Fe 415 & Concrete – M20
   iv) Column Size – 400mm X 250mm
   v) Beam Size – 350mm X 250mm
   vii) Soil strata- Hard Rock
   viii) Zone – V
   ix) Importance Factor- 1
   x) Lumped Mass – 1500kg at each floor
   xi) Modal Combination – Square root of sum of squares (SRSS)
   xii) Directional Combination - Square root of sum of squares (SRSS)
   xiii) Load Combination- 1.5 (DL+EL) as per IS: 1893-2002

Figure: Model of the frame