## 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

vi) Response Spectra- IS:1893 (Part 1)-2002

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