

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
SECOND SEMESTER M.TECH. DEGREE EXAMINATION, APRIL 2017

CIVIL ENGINEERING

(Computer Aided Structural Engineering)

10CE6126: HIGH RISE STRUCTURES

Max. Marks: 60

Duration: 3 Hrs

Part A (Modules I - II)

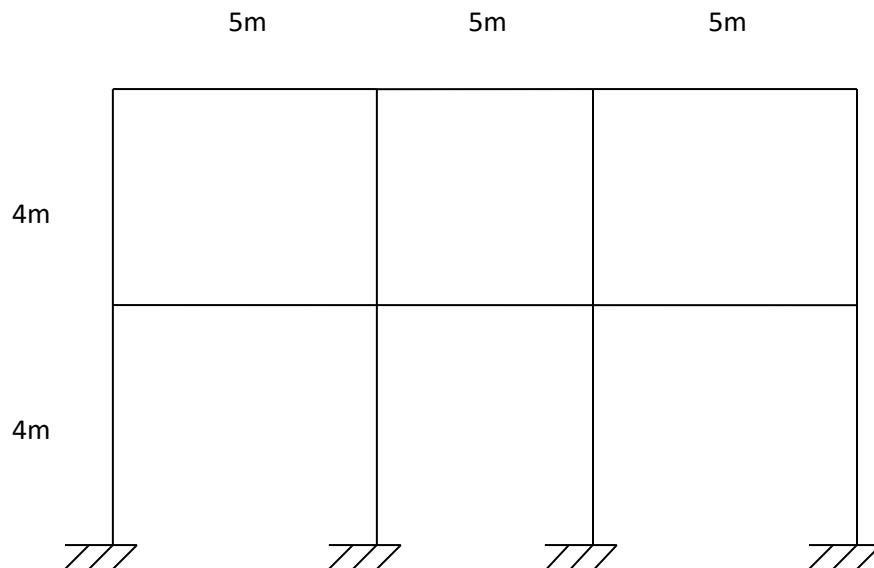
(Answer any two questions: $2 \times 9 = 18$ Marks)

1. Explain the criteria to be considered for design for high rise structures? 9 Marks
2. Explain the methods for earthquake analysis of high rise structure? 9 Marks
3. Write a note on
 - a) Wind loading 5 Marks
 - b) Gravity loading. 4 Marks

Part B (Modules III - IV)

(Answer any two questions: $2 \times 9 = 18$ Marks)

4. Total dead load on the rigid frame shown in figure 2 is 13kN/m. Total live load is 18kN/m. Analyse the frame for mid span positive moment on BC, using two cycle moment distribution



- method. 9 Marks
5. Explain briefly the various structural forms? 9 Marks

6. Write a note on behavior of braced frame structures?

9 Marks

Part C (Modules V & VI)

(Answer any two questions: 2 x 12 = 24 Marks)

7. Differentiate between Twisting and Non-Twisting Non-Proportionate Shear Wall structure?

12 Marks

8. a) Explain the behavior of Braced tube structures?

6 Marks

b) Explain the core structures?

6 Marks

9. Write a note on

a) Mat Foundation

6 Marks

b) Pile Foundation

6 Marks