MID TERM EXAMINATION   *MARCH-2019*

PAPER CODE: CE-316
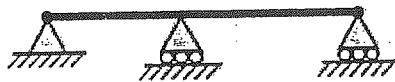
TITLE OF PAPER: MATRIX METHOD OF STRUCTURE ANALYSIS

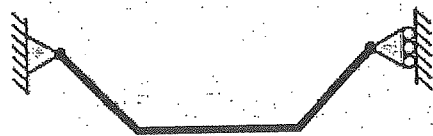Time: 1:30 Hours   Max. Marks: 20

Note: All questions carry equal marks.
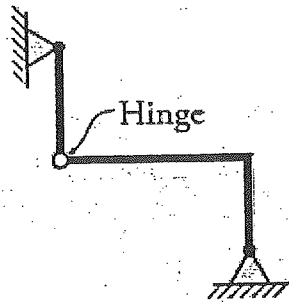   Assume suitable missing data, if any.

1. Define static determinacy. find out the determinacy of structure frame   6
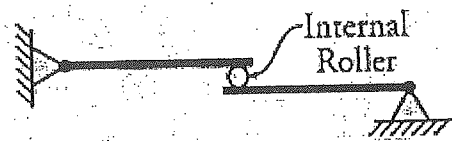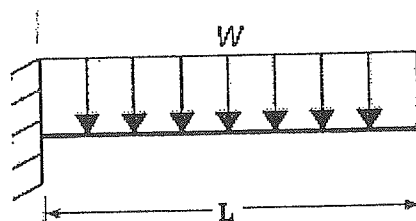   given below:

A.

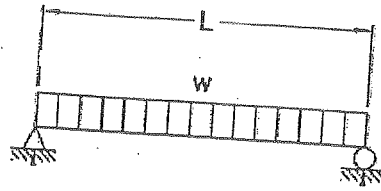B.

Hinge

Internal
Roller

C.

D.

2. Find the slope and deflection at free end of the beam given below. Use   4
    double integration method.

P.T.O.

3. Find the slope and deflection of the simple supported beam at center using Macaulay method: 6

4. Why flexibility method is called Force method.
A continuous beam ABC is carrying a uniformly distributed load of 1 kN/m in addition to a concentrated load of 10 kN as shown in Fig. below Draw bending moment and shear force diagram. Assume EI to be constant for all members. 4