

**B.E. Vith Semester (CGPA)  
Examination, 2017**

**EF-340**

**CIVIL ENGG.**

**(Theory of Structure-II)**

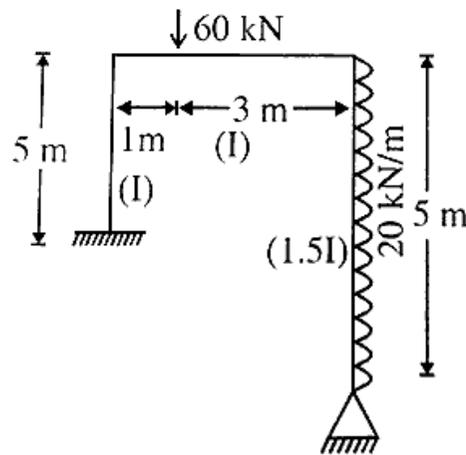
**Paper : CE-605**

**Time : 3 Hours]**

**[Maximum Marks : 60**

*Note :-* Attempt all questions. All questions carry equal marks.

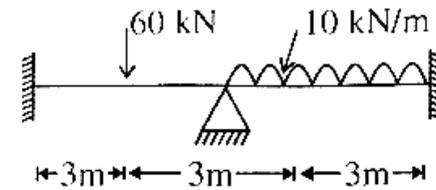
1. Analyse the portal frame shown in figure by moment distribution method.



12

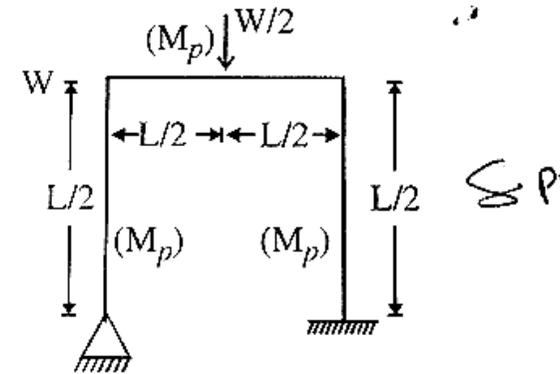
Or

Analyse the fixed beam by Kani's method.



12

2. (a) What do you understand by Plastic Hinge ?  
(b) Determine plastic moment for given frame.



10,2

Or

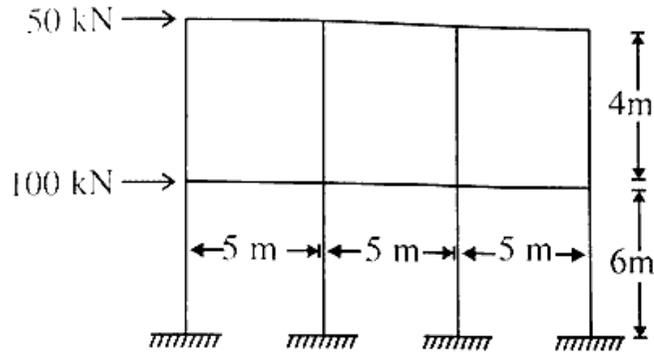
What is shape factor ? Determine the value of shape factor for triangular section.

12

3. Explain the method of calculation of wind load for a multistoreyed building as per 15 : 875 (Part-III).

12

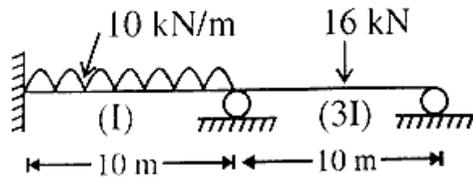
Analyse the frame shown in figure by cantilever method.



S.P.

12

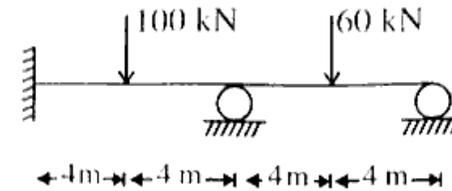
4. (a) Compare the flexibility and stiffness method of matrix structure analysis.
- (b) Analyse the given beam by using force method.



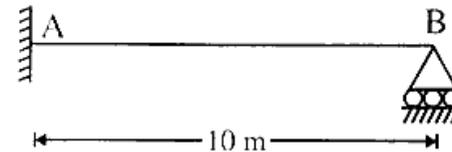
Or

4,8

- (a) Write down the procedure for solving matrix by displacement method.
- (b) Analyse the given beam by using force method. 4,8



5. (a) State and explain Muller's Breslau's theorem.
- (b) Draw influence line diagram for reaction  $R_B$  for propped cantilever beam shown in figure.



Or S.P.

Determine the influence line diagram for the bending moment at D for continuous beam shown in figure compute the ordinate at 1 m ordinate interval.

