Total No. of Question : [4] **Registration No. :** | | | | | | | | | |

Programme Name : Bachelor of Civil Engineering
Regular T.Y.B.Tech. ESE (A.Y. 2023-24) Sem.V Nov.2023
V SEMESTER (2021 BATCH)
201CEL301-Theory of Structures(TH)

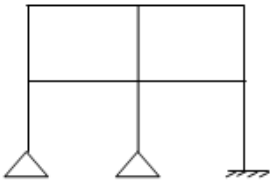
Duration : [11:00 AM - 01:00 PM]
Date : 20 Nov, 2023
Day : Monday

Marks : 50

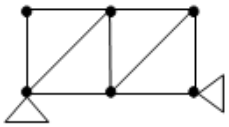
Instructions :

(Q1) Attempt all questions [20.0]

(1.1) Calculate Static and Kinematic inderminacy of the structures. [4.0]



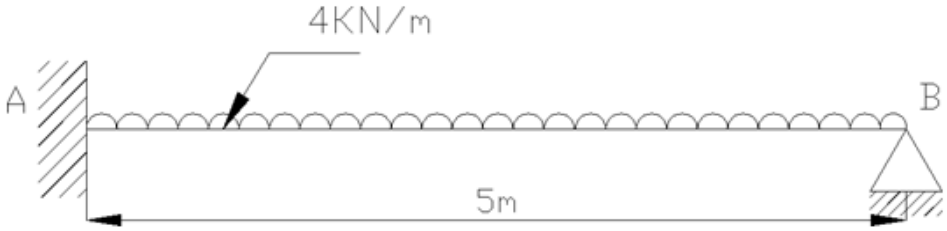
(i)



(ii)

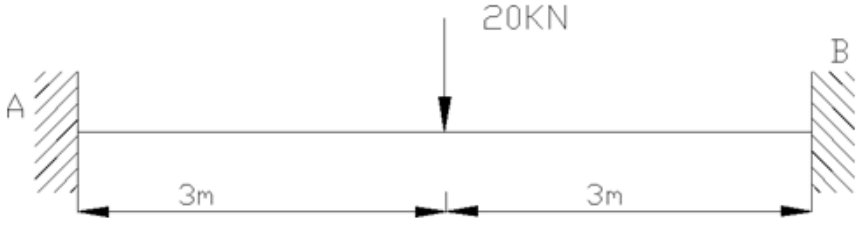
CO :- C301.1
Blooms Taxonomy :- Apply

(1.2) Find out Prop reaction of a propped cantilever beam AB loaded as shown in the figure by using Consistent deformation method. [6.0]



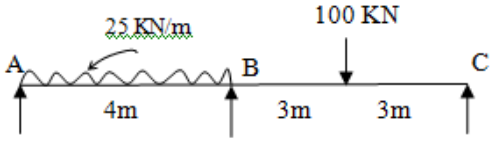
OR

A fixed beam AB of span 6m is loaded as shown in figure. Take EI constant. Find fixed end moments.

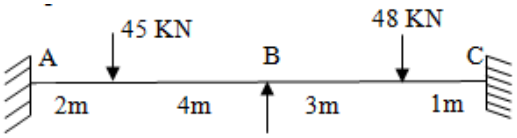


CO :- C301.2
Blooms Taxonomy :- Analyze

(1.3) Using Clapeyron's Theorem of three moments calculate all support reactions of a beam as shown below and draw final BMD. [10.0]

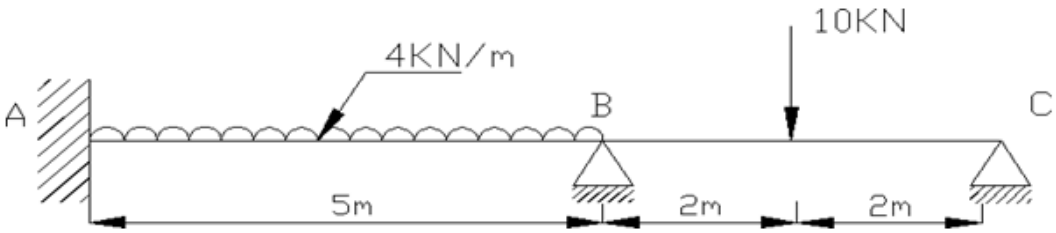


(Q2) A continuous beam ABC is loaded as shown in figure calculate F.E.M.S by using Slope Deflection Method and draw final BMD only. Take EI constant. [12.0]



CO :- C301.3
Blooms Taxonomy :- Analyze

(Q3) Find out F. E. M.s by using Moment distribution method. [12.0]



CO :- C301.3
Blooms Taxonomy :- Analyze

(Q4) Write any two [6.0]
i) Maxwell's Reciprocal Theorem
ii) Describe Castigliona's Ist Theorem
iii) Betti's Law
iv) Unit load Theorem

CO :- C301.4
Blooms Taxonomy :- Apply

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