chem

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Mid Semester Examination ~~**Oct 2018**~~ March 2019

Course : B. Tech in ~~**CIVIL ENGINEERING**~~ **Semester : IV**

Subject Name: Strength of Materials **Subject Code: BTESC405**

Max Marks: 20 **Date: 1st March 2019** **Time: 3 pm to 4 pm** **Duration: 1 Hour**

Instructions to the Students:

1. Assume suitable data wherever necessary and State it clearly.
2. Figures to Right Indicate full Marks.

QUESTIONS **Marks**

Q. 1 Attempt following Questions **06**

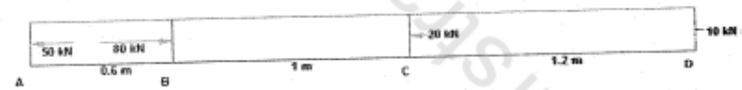
1. Define Stress 2. Define Volumetric Strain 3. Define Shear Force
4. Define Bending Moment 5. Explain determinant structure with an example.
6. Explain Shear Deformation

Q.2 Solve ANY TWO of the following.

(A) Enlist different types of trusses on the basis of their span. **03**

(B) Prove that Volumetric Strain for Rectangular Bar = Strain of length + Strain of Depth + Strain of width. **03**

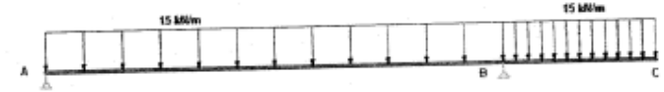
(C) A Brass bar having a cross sectional area of 1000 mm^2 is subjected to axial forces forces as shown in figure. Find the Total Change in Length of the Bar. Take E = 1.05 x 10^5 N/mm^2. At Point D, 10 kN load is acting towards Left) **03**



Q. 3 Solve ANY ONE of the following.

(A) Explain different Methods of Analysis of Truss. **08**

(B) Draw the Shear Force Diagram and Bending Moment for the Beam ABC. Support A and Support B are Roller Supports. **08**



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