Sem -II

SEM-II F.Y.B.ARCH EXAMINATION APRIL - 2015 (REVISED COURSE)

Subject: Theory & Design of Structures-II   Max. Marks: 50

Date: 13/04/2015   Duration: 2 Hrs.

INSTRUCTIONS:
   Q. NO. 1 is compulsory.
   Attempt any TWO questions out of remaining THREE questions.
   Use suitable data if necessary.
   Numbers in parenthesis are right to indicate full marks.

Q.NO.1) a) State the simple bending equation. Write the meaning of the symbols
             used in it.   [06]
        b) Differentiate between centroid and centre of gravity.   [06]
        c) Draw stress-strain curve for mild steel bar indicating the salient points. [06]

Q.NO.2) Draw SF and BM diagrams for the beam loaded and supported as shown
         in figure (1). Indicate the values at important points.   [16]
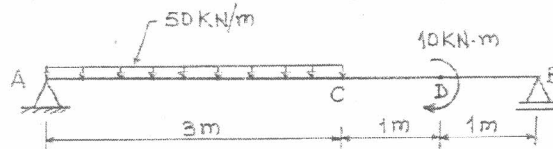

Fig.(1)

Q.NO.3) a) Derive the relation between Modulus of Elasticity and Bulk Modulus,
            when a body is subjected to tri-axial stress system.   [10]

        b) Enlist the types of stresses in-detail.   [06]

Q.NO.4) Calculate MI about the X-X axis passing through centroid for the shaded
         Portion of lamina shown in figure (2).   [16]

Fig.(2)