

**Sessional Assignment**  
**Advanced mechanics of Materials**

**Total Marks: 20**

Explain the following topics in detail with neat sketches in detail:

1. Application of Mohr's Circle to the Three-
2. Dimensional Analysis of Stress.
3. Simple bending and Pure Bending.
4. Assumption made in theory of pure bending.
5. Classic Flexure Equation.
6. Section Modulus.
7. Application of Bending Equation in any object.
8. Moment of resistance.
9. Design of Columns Under Centric Load
10. Deflections of beam by Castigliano's Theorem

**Note:**

Each student will explain the above topics in their own words with separate diagrams as an example. Do not copy on another because you will get zero.