**Annexure No. SA/14**

**School of Aeronautics (Neemrana)**

**I-04, RIICO Industrial Area, Neemrana, Dist. Alwar, Rajasthan**

**INTERNAL ASSESSMENT EXAMINATION THEORY**

**Examination:** IAE-1 **Date:** 28/10/18

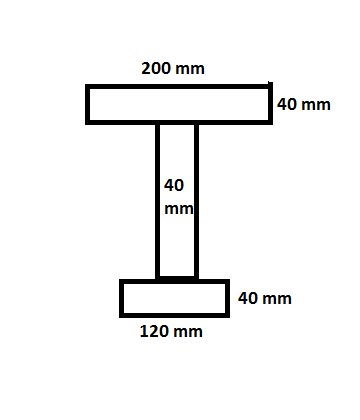
**Subject:** Aircraft Structure-II **Batch:** 10 & 11

**Faculty Name:** Mr. Bipin Dwivedi **Semester:** VI

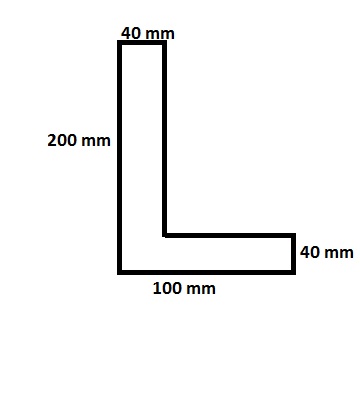
**(Attempt any four questions. All questions carry equal marks.)**

**Total No. of Questions: 06** **Total Marks: 30**

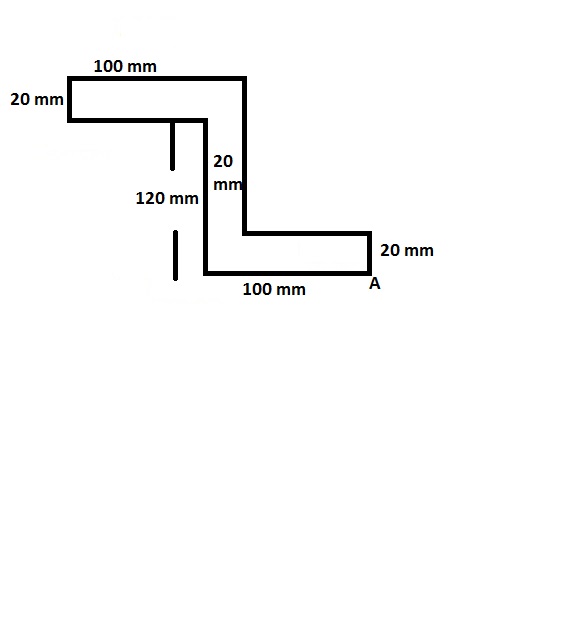
1. Find the moment of inertia about the principle axis for the given section in the figure



1. Derive the position of the principal axis from the centroidal axis and for an unsymmetrical section.
2. Derive the relation for symmetric bending where, M is bending moment, I is moment of inertia, σ is bending stress, Y is the position of stress from centroidal axis and E is Young’s Modulus
3. Find the position of principal axis from centroidal axis and for the given fig.



1. Find the position of neutral axis from principal axis for unsymmetrical section.
2. Calculate the bending stress at a given point A for the section shown in the figure.



**THE END OF THE QUESTION PAPER**