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**AE 8403 Aircraft Structures- I**

**Important 2mark questions**

**Unit I**

1. What is the criterion to define whether the structure is statically determine or not?
2. State principle of superposition.
3. What is a two force member?

**Unit II**

1. What is meant by strain energy? Give an expression for strain energy due to shear.
2. Bring out the differences between dummy load method and unit load method.
3. Define strain energy and give an expression for strain energy due to bending.

**Unit III**

1. What is meant by Southwell plot?
2. What is a beam-column?
3. What is meant by equivalent length of the column? Give the same for the various types of column.

**Unit IV**

1. Define factor of safety.
2. Define the hydrostatic state of stress.
3. How do you differentiate brittle and ductile materials?

**Unit V**

1. What is meant by impact load?
2. Briefly define fatigue of materials.
3. How thermal stresses are induced in a structural element?