Important 2mark questions

Unit I

1. Define neutral axis and principle axis of a section.
2. Name 3 methods of normal stress determination when a beam undergoes unsymmetrical bending.
3. Write down the expression for orientation of neutral axis.

Unit II

1. What is meant by structural idealization?
2. Define shear center and elastic axis.
3. Define the shear flow and how shear stress is determined using shear flow.

Unit III

1. State the assumptions of the Bredt-Batho Theory.
2. The shear center position for a thin-walled slit circular tube will:
   i)   Coincide with the centroid of the position
   ii)   Lie very close to be centroid of the section
   iii)   Be Located outside the slit tube.
3. Derive the relation between shear flow and twisting moment.

Unit IV

1. Describe the buckling modes of a thin walled section.
2. Define effective width.
3. Define stress ratio and write margin of safety in terms of stress ratio.

Unit V

1. What is meant by gust load?
2. Define complete tension and semi tension field beam.
3. Draw a typical V-n diagram and indicate salient points.