



QEEE COURSES

DESIGN OF REINFORCED CONCRETE BEAMS – DESIGN OF CONCRETE STRUCTURES

COURSE CONTENT:

Module 1:

- Concept of Limit State Method
- Characteristic load and characteristic strength
- Partial safety factors
- Stress strain behaviour steel and concrete
- Failure of concrete beam
- Balanced, under-reinforced and over-reinforced section
- Singly reinforced section and doubly reinforced section
- Examples

Module 2:

- Analysis and design of singly reinforced beam
- Introduction to IS codes
- Examples

Module 3:

- Analysis and design of doubly reinforced beam
- Examples
- Extension of beam design philosophy to other structural components (illustration)