

**ALPHA COLLEGE OF ENGINEERING & TECHNOLOGY**  
**DEPARTMENT OF CIVIL ENGINEERING**  
**FAQ**  
**STRUCTURAL MECHANICS-II (3340601)**  
DIPLOMA – 4<sup>th</sup> SEM                      CLASS: CIVIL

- 1) Define Determinate and Indeterminate structures. Explain Statically Determinate and Indeterminate Beam with examples.
- 2) Distinguish between Simply supported beam and fixed beam.
- 3) What are the advantages and disadvantages of fixed beam?
- 4) A fixed beam of span 5.0 m carries a central point load of 40 KN .Determine the fixed end moments and draw SFD & BMD.
- 5) A fixed beam of span 6.0 m carries an udl of 80 KN/m.Determine the fixed end moments and draw SFD & BMD.
- 6) Draw SF & BM diagrams by using area-moment method for a fixed beam of 6 m span, subjected to two point loads 20 KN each, at distance 1.5 m from both supports.
- 7) A fixed beam of 4 meter span is subjected to an UDL of 20 KN/m over entire span. It is also subjected to a point load of 30 KN at the centre. Draw SF & BM diagrams for the above beam.