

6. Develop a one-dimensional finite element model of heat transfer including both conduction and convection for a solid cylindrical body surrounded by a fluid medium. Assume boundary conditions.
7. Derive the governing equations for a general three dimensional flow. How will you modify this equation for steady flow of an incompressible fluid?
8. **Write short notes on :**
 - a) Difference between boundary value and initial value problems.
 - b) Pre and Post processing in FEA.
 - c) Weighted residual's method.
 - d) Stream functions.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.