FAQs

1. Write the expression to find the total compressive force offered by the concrete.

   $$C_u = 0.36 f_{ck} x_u b$$

2. Write the expression to find the total tensile force offered by the steel.

   $$T_u = 0.87 f_y A_{st}$$

3. Find the expression for actual depth of neutral axis.

   $$@ \text{ N.A } C_u = T_u$$

   $$0.36 f_{ck} x_u b = 0.87 f_y A_{st}$$

   $$x_u = 0.87 f_y A_{st} / 0.36 f_{ck} b$$

4. Give the limiting values of depth of neutral axis.

Steel Type	f_y (N/mm^2)	X_{ulim}	Max. Strain
Mild Steel	250	0.531d	0.00308
Fe415	415	0.479d	0.00380
Fe500	500	0.456d	0.00417