Question

An 18 year bond with 6% coupon and a par value of ksh 1000 paying interest semiannually is selling for ksh 700.89. Calculate the yield on the bond.

Solution

PV(par value)=1000 ksh
BP(price)= 700.89 ksh
N=18
coupon = 6%

$$SemiannualY = \frac{\frac{FV - BP}{n} + C}{\frac{FV + BP}{2}}$$

$$SemiannualY = \frac{\frac{1000 - 700.89}{18} + \frac{1000 * 6\%}{2}}{\frac{1000 - 700.89}{2}} = 0.055$$

$$Y = (1 + SemiannualY)^2 - 1$$

$$Y = (1 + 0.055)^2 - 1 = 11.3\%$$

Answer: 11.3%.