

54. Solution: C

Given the coupon rate is greater than the yield rate, the bond sells at a premium. Thus, the minimum yield rate for this callable bond is calculated based on a call at the earliest possible date because that is most disadvantageous to the bond holder (earliest time at which a loss occurs). Thus,  $X$ , the par value, which equals the redemption value because the bond is a par value bond, must satisfy:

$$\text{Price} = 1722.25 = .04Xa_{\overline{30}|\cdot03} + Xv_{\cdot03}^{30} \text{ or } X = 1722.25 / (.04a_{\overline{30}|\cdot03} + v_{\cdot03}^{30}) = 1722.25/1.196 = 1440.01$$