5.C) Using the linear regression equation obtained from Part B, y = 1.88x + 82.6, we can estimate the height of a person with a femur length of 53 cm.

Substitute x = 53 into the equation:

y = 1.88(53) + 82.6 = 99.64 + 82.6 = 182.24 cm

Therefore, the estimated height of a person with a femur length of 53 cm is 182.24 cm.