Formulas of Proximate analysis

1. $Moisture\ \% = [\frac{\text{Weight of original sample(g)} - \text{Weight of dried sample(g)}}{\text{Weight of original sample(g)}}] \times 100$

2. $Fat\ \% = \frac{(Weight\ of\ sample + thumble) - (\ Weight\ of\ dried\ fat\ free\ sample + thible)}{Weight\ of\ sample} \times 100$

3. $\text{Ash } \% = \frac{Weight\ of\ ash(g)}{Weight\ of\ sample\ (g)} \times 100$

4. $\text{Fiber } \% = \frac{\text{A} - \text{B}}{\text{C}} \times 100$

   A = Weight of oven dried sample (g) before placing in muffle furnace
   B = Weight of sample after ashing (g)
   C = Weight of sample (g)

5. Protein

   $\text{Nitrogen } \% = \frac{Volume\ of\ 0.1N\ H2SO4\ used \times 0.0014 \times Vol.of\ dilution(250)}{Weight\ of\ sample \times 10} \times 100$

   Protein % = Nitrogen percentage × 5.72

6. NEF %= $100 - (Moisture\ \% + Crude\ fat\ \% + Ash\% + Crude\ fiber\% + \ protein\ \%)$

7. $Wet\ gluten\ (\%) = \frac{Weight\ of\ wet\ gluten}{Weight\ of\ sample} \times 100$

8. $Dry\ gluten\ (\%) = \frac{Weight\ of\ dry\ gluten}{Weight\ of\ sample} \times 100$