Percentages & Profit–Loss

- Percentage = (Value / Total) × 100
- Profit = SP − CP, Loss = CP − SP
- Profit% = (Profit/CP) × 100
- Successive discount = a + b − ab/100

Ratio, Average, Mixture

- Average = Sum of observations / Number
- If avg changes by d, total change = d × n
- Alligation: Mean ratio = (C2 – M):(M – C1)

SI & CI

- SI = (P × R × T) / 100
- CI = P(1 + R/100)^T – P
- Difference CI – SI for 2 yrs = P(R/100)^2

Time & Work / Pipes

- Work $\propto$ Time
- Efficiency $\propto$ 1/Time
- Combined work: 1/T = 1/T1 + 1/T2

Time–Speed–Distance

- Speed = Distance / Time
- Relative speed (opp dir) = S1 + S2
- Trains: Length / Relative speed

Permutations & Probability

- nPr = n!/(n–r)!
- nCr = n!/(r!(n–r)!)
- Probability = Favorable / Total

Clocks & Calendar

- Angle = |30h – 5.5m|
- Odd days concept for calendar problems