

SNAP Quantitative Aptitude – Important Formulae

Quick Revision Sheet for SNAP Exam

Percentage

- Percentage = $(\text{Part/Whole}) \times 100$
- New Value = Original Value $\times (1 \pm \% \text{ change}/100)$
- Successive change = $a + b + (ab/100)\%$

Profit & Loss

- Profit = SP – CP
- Loss = CP – SP
- Profit% = $(\text{Profit/CP}) \times 100$
- Loss% = $(\text{Loss/CP}) \times 100$
- SP = $CP \times (100 + \text{Profit\%})/100$

Simple & Compound Interest

- SI = $(P \times R \times T)/100$
- Amount = P + SI
- CI Amount = $P(1 + R/100)^T$
- CI = Amount – Principal

Ratio & Proportion

- $a:b = a/b$
- Fourth Proportional = $(b \times c)/a$
- If $a:b = c:d$ then $ad = bc$

Time, Speed & Distance

- Speed = Distance/Time
- Distance = Speed $\times$ Time
- Average Speed = Total Distance/Total Time
- Relative Speed (opposite) = $S_1 + S_2$

Time & Work

- Work = Rate $\times$ Time
- If A finishes in x days, rate = $1/x$
- Combined rate = Sum of individual rates

Averages

- Average = Sum of Observations / Number of Observations
- Required Sum = Average $\times$ Count

Permutations & Combinations

- $nPr = \frac{n!}{(n-r)!}$
- $nCr = \frac{n!}{r!(n-r)!}$

Probability

- Probability = Favorable Outcomes / Total Outcomes
- $0 \leq P(E) \leq 1$
- $P(\text{not } E) = 1 - P(E)$

Algebra

- $(a+b)^2 = a^2 + 2ab + b^2$
- $(a-b)^2 = a^2 - 2ab + b^2$
- $a^2 - b^2 = (a+b)(a-b)$

Geometry & Mensuration

- Area Rectangle = $l \times b$
- Area Triangle = $\frac{1}{2} \times b \times h$
- Area Circle = πr^2
- Circumference = $2\pi r$
 - Volume Cylinder = $\pi r^2 h$
- Volume Sphere = $\frac{4}{3} \pi r^3$

Data Interpretation

- Percentage Change = $\frac{(\text{New} - \text{Old})}{\text{Old}} \times 100$
- Ratio Comparison = $\frac{\text{Value1}}{\text{Value2}}$