INDEX NUMBERS

Simple Aggregate $= \frac{\Sigma P_1}{\Sigma P_0} \times 100$

Simple Ag (AM) PR $= \frac{\Sigma P}{n}$, $\left[P = \frac{P_1}{P_0} \times 100\right]$

- (GM) $= \text{Antilog}\left[\frac{\Sigma \log P}{n}\right]$

Weighted Ag. Mthd $= \frac{\Sigma P_1 W}{\Sigma P_0 W} \times 100$

Wt. Avg. using (AM) $= \frac{\Sigma PW}{W}$ $\left[P = \frac{P_1}{P_0} \times 100\right]$

- using (GM) $= \text{Antilog}\left[\frac{\Sigma \log P \times W}{W}\right]$

Laspeyer's $= \frac{\Sigma P_1 q_0}{\Sigma P_0 q_0} \times 100$.

Passche's $= \frac{\Sigma P_1 q_1}{\Sigma P_0 q_1} \times 100$.

Dorbish & Bowly = $\frac{L+P}{2}$

Fisher's Mthd = $\sqrt{L \times P}$

Marshall & Edge = $\frac{\Sigma P_1(q_0+q_1)}{\Sigma P_0(q_0+q_1)} \times 100$

walsh = $\frac{\Sigma P_1 \sqrt{q_0 \times q_1}}{\Sigma P_0 \sqrt{q_0 \times q_1}} \times 100$

Kelly's = $\frac{\Sigma P_1 q}{\Sigma P_0 q} \times 100$.

TESTS:-

✗ UT	✗ TRT	✓ FRT	✓ CT
SAM	SA-AM	Fisher	SAM
	WA-AM		SA-GM
	LASP		Kelly.
	Paas		
	D&B		

Cost of living Index:

1. Wgt Agt Exp $= \frac{\Sigma P_1 q_0}{\Sigma P_0 q_0} \times 100$

2. Family budget $= \frac{\Sigma I w}{\Sigma w}$

DEFLATING:

1. Purchase power of money:

$$\frac{100}{\text{Consumer price Index}}$$

2. Real wages $= \frac{\text{Nominal money wages}}{\text{Cost living}} \times 100$

(OR)

$$= \text{Nominal wages} \times PPI.$$

3. Real wage Index $= \frac{\text{current}}{\text{Base}} \times 100.$

CHAIN BASE INDEX:

Fixed Base IN = $\frac{\text{CYI}}{\text{Index of base year which has to shifted.}} \times 100$

Average Base IN = $\frac{\text{CYI}}{\text{Average of two or more years}} \times 100$

Chain Base IN =

(i) Link Relative = $\frac{\text{CYI}}{\text{PY I}} \times 100$

(ii) C.B.I = $\frac{\text{LR of CY} \times \text{CBI of PY}}{100.}$

SPLICING:

Forward = Number $\times \frac{\text{Base}}{100}$ (New)

Backward = Number $\times \frac{100}{\text{Base}}$ (Old)