Some Important formulas

MP = market prices
FC = factor cost

1. $GDP_{MP} = \sum_{i=1}^{n} VA_i$; VA_i = value added by ith productive units
2. $GDP_{FC} = GDP_{MP}$ − net indirect taxes

[GDP = gross domestic product]

3. $NDP_{MP} = GDP_{MP}$ − depreciation
4. $NDP_{FC} = GDP_{FC}$ − depreciation

   $= \cancel{GDP}\ NDP_{MC}$ − net indirect taxes

[NDP = net domestic product]

5. $GNP_{MP} = GDP_{MP}$ + factor income from abroad − factor income to abroad
6. $GNP_{FC} = GNP_{MP}$ − net indirect taxes

[GNP = gross national product]

7. $NNP_{MP} = GNP_{MP}$ − depreciation
8. $NNP_{FC} = GNP_{FC}$ − depreciation = national income (NI)

   $= NNP_{MP}$ − net indirect taxes

[NNP = net national product]

9. PI (personal income) = NI − Corporate income
   − social insurance contribution
   − net interest
   + dividends
   + personal interest income
   + transfer income

[where, net interest = interest that domestic business pay − interest that domestic business receive]

transfer income = pensions, subsidy, unemployment benefit, illness benefit

10. PDI (personal disposable income) = PI − personal direct taxes (income tax)

11. PCI (per-capita income) $= \dfrac{NI}{\text{population}}$

(12) Method of calculation of NI :-

(a) income method :-

$$NI = (W + r + \pi + R)$$

W = wages, salaries, emoluments, remuneration

r = rate of interest

π = profit

R = rent

(b) expenditure method :-

$$NI = C + I + G$$

C = consumption expenditure

I = investment expenditure

G = government expenditure

(c) Value - added method :-

NI = sum total of value addition at each production stage