♦ Dependency ratio, $d = \frac{P_{0-14} + P_{65+}}{P_{15-64}} \times 100$

[**Comment :** A country with a lower the dependency ratio will be more developed / more prosperous
more earning capacity.]

♦ Sex ratio, $SR = \frac{M}{F} \times 100$

[**Comments : (i)** If SR = 100, then the number of males and females will be equal.
(ii) If SR = 110, then the number of males is greater than the number of females.
(iii) If SR = 80, then the number of males is less than the number of females.]

♦ Population density, $D = \frac{P}{A}$

Necessary Formulas :

(i) Crude birth rate, $CBR = \frac{B}{P} \times 1000$ (ii) General fertility rate, $GFR = \frac{B}{F_{15-49}} \times 100$

(iii) Age specific fertility rate, $ASFRi = \frac{B_i}{F_i} \times 1000$ [i = 1, 2, ---------,7]

(iv) Total fertility rate, $TFR = 5 \sum_{i=1}^{7} \frac{B_i}{F_i} \times 1000$ ♦ Net fertility rate, $NFR = 5 \sum_{i=1}^{7} \frac{B_i}{F_i} \times Si \times 1000$

(v) Gross reproduction rate, $GRR = 5\sum_{i=1}^{7} \frac{G_i}{F_i} \times 1000$ ♦ Net reproduction rate, $NRR = 5 \sum_{i=1}^{7} \frac{G_i}{F_i} \times S_i \times 1000$

- Natural Growth Rate, NGR = CBR - CDR = $\frac{B-D}{P} \times 1000$
- The rate of increasing population, $r = \text{Antilog}\left\{\frac{1}{n}\log\left(\frac{P_n}{P_0}\right)\right\} - 1$
- The time period of the population being doubled, $n = \frac{\log_{10}2}{\log_{10}(1+r)}$ **or,** $n = \frac{\log_e 2}{r}$
- The time period of the population being tripled, $n = \frac{\log_{10}3}{\log_{10}(1+r)}$ **or,** $n = \frac{1}{r}\log_e 3$

(i) Crude death rate, $CDR = \frac{D}{P} \times 1000$ **(ii)** Age specific death rate, $ASDR_i = \frac{D_i}{P_i} \times 1000$