- Effective Annual Rate:

$$Effective\ Annual\ Rate = (1 + \frac{Stated\ annual\ interest\ rate}{m})^m - 1$$

- Future value (FV) and Present value (PV) of a single cash flow (simplified formula):

$$FV_N = PV(1 + r)^N$$

$$PV = \frac{FV_N}{(1 + r)^N}$$

- Future value (FV) and Present value (PV) of investments paying interest more than once a year:

$$FV_N = PV\left(1 + \frac{r_s}{m}\right)^{mN}$$

$$PV = \frac{FV_N}{\left(1 + \frac{r_s}{m}\right)^{mN}}$$

- Future value (FV) of an investment with continuous compounding:

$$FV_N = PVe^{r_s N}$$

- Future value (FV) and Present value (PV) of an Ordinary Annuity:

$$FV_N = A\left[\frac{(1 + r)^N - 1}{r}\right]$$

$$PV = A\left[\frac{1 - \frac{1}{(1 + r)^N}}{r}\right]$$

- Future value (FV) and Present value (PV) of an Annuity Due:

$$FVA_{Due} = FVA_{Ordinary} \times (1 + r) = A\left[\frac{(1 + r)^N - 1}{r}\right](1 + r)$$

$$PVA_{Due} = PVA_{Ordinary} \times (1 + r) = A\left[\frac{1 - \frac{1}{(1 + r)^N}}{r}\right](1 + r)$$

- Present value (PV) of a Perpetuity:

$$PV_{perpetuity} = \frac{PMT}{r}$$

- Future value (FV) of a series of Cash flows:

$$FV_N = Cash\ flow_1(1+r)^1 + Cash\ flow_2(1+r)^2 \ldots\ldots Cash\ flow_N(1+r)^N$$

- Net Present Value (NPV) of an investment:

$$NPV = \sum_{t=0}^{N} \frac{CF_t}{(1+r)^t}$$

- Internal rate of return (IRR) of an investment:

$$NPV = CF_0 + \frac{CF_1}{(1+IRR)^1} + \frac{CF_2}{(1+IRR)^2} + \cdots + \frac{CF_N}{(1+IRR)^N} = 0$$

- Holding period return (HPR):

$$HPR = \frac{Ending\ value - Beginning\ value}{Beginning\ value}$$

- Holding period return with cash flow at the end of the period:

$$HPR = \frac{Ending\ value - Beginning\ value + Cash\ flows\ received}{Beginning\ value} = \frac{P_1 - P_0 + D_1}{P_0}$$

- Yield on a bank discount basis (BDY):

$$r_{BD} = \frac{D}{F} \times \frac{360}{t}$$

- Effective annual yield (EAY)

$$EAY = (1 + HPY)^{\frac{365}{t}} - 1$$

- Money market yield (CD equivalent yield):

$$Money\ market\ yield = HPY \times \left(\frac{360}{t}\right) = \frac{360 \times r_{BankDiscount}}{360 - (t \times r_{BankDiscount})}$$