

Final Revision

Chapter 3: Cash Budget

$$\textcircled{1} \quad \text{Total Cash Receipts} - \text{Total Cash Payments} = \text{Net Cash.}$$

$$\textcircled{2} \quad \text{Ending Cash balance} = \text{Net Cash} + \text{Beginning Cash Balance.}$$

$$\textcircled{3} \quad \text{To get the Required Financing or the Excess cash:-} \\ \Rightarrow \text{Ending Cash balance} - \text{minimum cash balance.}$$

Chapter 4: Time Value of Money

[a] Single Amount: $FV = PV(1+r)^n$
~~a~~ deposit made only once $PV = \frac{FV}{(1+r)^n}$

[b] Annuity: equal payments made each year.

$$* PV = \frac{CF}{r} \left[1 - \frac{1}{(1+r)^n} \right] \times (1+r)$$

$$* FV = \frac{CF}{r} [(1+r)^n - 1] \times (1+r)$$

Ordinary Annuity



equal payments made each
at the end of the year

Annuity Due.



equal payments made
at the Beginning of
each year

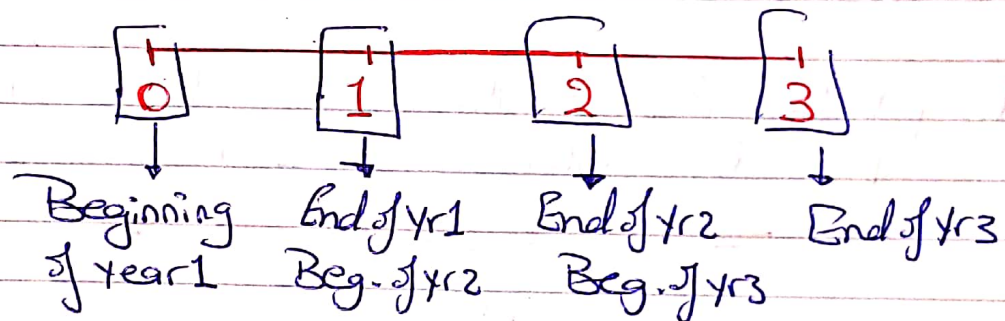
[C] Perpetuity:
$$PV = \frac{Cf}{r}$$

as the no. of years will not be given.

[d] Mixed Stream: *unequal payments made each year.*

$$\left[\begin{array}{l} PV = \frac{FV}{(1+r)^n} \\ FV = PV(1+r)^n \end{array} \right] \rightarrow \text{Solve it by the timeline.}$$

Time Line :-



Note that :-

When it is mentioned in the problem :-

"Compounded Semi-annually" :- $m = 2$
 quarterly :- $m = 4$
 monthly :- $m = 12$
 daily :- $m = 365$

therefore the rules will be :-

$$* PV = \frac{FV}{(1 + \frac{r}{m})^{n \times m}}$$

$$* FV = PV (1 + \frac{r}{m})^{n \times m}$$

[e] Loan Amortization Schedule :-

1st step:- Calculate the CF \rightarrow Cashflow.

$$CF = \frac{PV \times r}{\left[1 - \frac{1}{(1+r)^n}\right]}$$

2nd step:- Form the Schedule :-

Years	CF	Interest	Principle	Outstanding
1	From the	Outstanding	CF -	New Outstanding
2	1st	X rate	Interest	old old o/s
3	step	of interest		- principle.
4				

Chapter 7:- Stock valuation:-

[a] Dividends growth Models:-

① Zero-growth Model :- $P_0 = \frac{D}{r_s}$
 D_0 = dividends paid last year

② Constant growth Model :- $P_0 = \frac{D_1}{r_s - g}$
 D_1 = dividends expected to be paid.

③ Variable growth Model :-

$$* D_t = D_n (1 + g_1)$$

$$* P_3 = \frac{D_4}{r_s - g_2}$$

Note that:-

$$* D_1 = D_0 (1 + g)$$

$$* g = \left[\frac{D \text{ of New year}}{D \text{ of last year}} \right]^{\frac{1}{n}} - 1$$

note that n is the range of years not the no. of years.

[b] Free Cash Flow Model:-

* To Calculate the value of the company:-

$$V_C = \sum \frac{FCF}{(1+r)^n}$$

* To Calculate the value of the Shares:-

$$V_S = V_C - V_D - V_P$$

→ value of preferred stock

↳ value of debt

* To Calculate the Price of the Share:-

$$P/\text{Share} = \frac{V_S}{\text{no. of Shares.}}$$