17/4/19

CORPORATE ACCOUNTING.

Syllabus:-

Unit 1: Underwriting of Shares.

Meaning - Underwriting Commission - Underwriter - functions - Advantages of Underwriting. Types of Underwriting - Marked and Unmarked Applications - Problems (Excluding Journal entries).

Unit 2: Profit prior to Incorporation.

Meaning - Calculation of sales ratio - time ratio - weighted ratio - Treatment of capital and revenue expenditure - Ascertainment of pre-incorporation and post-incorporation profits by preparing profit and loss Account and Balance sheet.

Unit 3: Valuation of Goodwill.

Meaning - Circumstances of Valuation of goodwill - Factors influencing the value of Goodwill - Methods of Valuation of Goodwill: Average profit Method, Super profit Method, Capitalisation of average profit Method, Capitalisation of Super profit Method, and Annuity Method - problems.

Unit 4: Valuation of Shares

Meaning - Need for Valuation - Factors Affecting Valuation - Methods of Valuation:- Intrinsic Value Method, Yield Method, Earning Capital Capacity Method, Fair Value of Shares. Right Issue and Valuation of Rights Issue - Problems.

Unit 5: Company Final Accounts

Statutory provisions regarding preparation of Company Final Accounts - Treatment of Special Items - Tax deducted at source - Advance payment of Tax - Provision for Tax - Depreciation - Interest on debentures - Dividends - Rules regarding payment of dividends - Transfer to Reserves - Preparation of Profit and Loss Account and Balance Sheet in vertical form (As per 2011 revised format).

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Valuation of Shares

Introduction:-

Share:- Share is the share in the Capital of the Company in which there is initial investment being done by a person called Share Holder. He is the risk bearer as well as the owner of the Company. He also has the rights over the profit or loss earned by the Company.

There are 2 types of Shares:-

* Equity Shares
* Preference Share

Preference Shares are subdivided into following types:-

* Cumulative Preference Shares.
* Non-Cumulative Preference Shares.
* participating Preference Shares.
* Non-participating preference Shares.
* Redeemable Preference Shares.
* Irredeemable Preference Shares.

Circumstances for valuing Shares:-

* When there is amalgamation or absorption of the Company.
* When a block of Shares are to be purchased or sold.
* When one class of shares are transferred into another type of Shares.
* When a Company is being privatised.
* When the Shares are to be provided as Security for Loans and advances.

* When shares are to be sold in the absence of Stock Exchange.
* When the assets of the Company are to be valued.

Factors to be considered while valuing Shares :-

* Stability of earnings of Company.
* Earning Capacity of the Company.
* Demand for the supply of shares of the Company.
* The Economical & political conditions in the country.
* Value of goodwill of the Company.
* Nature of Business.

Methods of Valuation of Shares :-

* Net Asset Method / Intrinsic Method.
* Yield Method
* Earning per Share Method

* Net Asset Method :-

Under this method, the value of shares is ascertained by adding market value of all Assets including unrecorded assets, Goodwill & Investments, subtracting Liabilities (excluding Share Capital, Reserves and Surplus). The amount we get is called as Net value of Assets for all Shareholders. The value of Share will be ascertained by dividing the amount available for Equity Shareholders by No. of Equity Shares.

Proforma showing Intrinsic Value of Shares :-

Market value of Assets -		
Goodwill	xxx	
Land & Building	xxx	
Plant & Machinery	xxx	
Furniture	xxx	
Patents	xxx	
Motor Vehicle	xxx	
Investment	xxx	
Cash	xxx	
Debtors	xxx	
Bills Receivables	xxx	
Closing Stock	xxx	
Prepaid Expenses	xxx	
		xxx
(-) Liabilities		
Debentures	xxx	
Mortgage Loan	xxx	
Creditors	xxx	
Bills Payable	xxx	
Bank Overdraft	xxx	
Unclaimed Dividend	xxx	
Provision for Taxation	xxx	
Proposed Dividend	xxx	
Employee Provident Fund	xxx	
Workmen Savings A/c	xxx	
Depreciation Fund	xxx	
		(-)xxx
Asset available for all Shareholders		xxx
Less: preference Claim		
i) preference Share Capital		xxx
ii) Preference Dividend		xxx

Profit available for Shareholders XXX

$$\text{Value of Share} = \frac{\text{Profit available for Equity Shareholders}}{\text{No. of Equity Shares}}$$

Note:- * While ascertaining Net value of Assets, the fictitious assets such as preliminary expenses, profit and loss A/c, underwriting commission, Discount on issue of shares and Debentures, etc., must be ignored.

* At the time of valuing the shares, all the assets must be valued at market value.
* When there are both the types of shares - fully paid up and partly paid up, we need to follow the following procedure:-
  - Find the total value of Net Assets using the following formula:-

$$\text{Market value of Assets} = \text{Total liabilities} + \text{Notional calls on partly paid up shares}$$

  - Subtract from the above, total value of Net Assets and the claims of preference shareholders (if any).
  - Divide the balance by the total no. of Equity shares i.e., both fully paid up & partly paid up.
  - From the value per share obtained, subtract notional calls in case of the partly paid up shares.
  - The value in the above step represents Intrinsic value of fully paid up shares.

* **Yield Method:-**

Under this method, we assume that the company is existing & will not dispose its Assets. Hence, the profit available for equity dividend are considered to find the value of shares.

Steps to be taken:-

* Ascertain average profit of the company.
* Ascertain profits available for dividend, after subtracting provision for taxation, and other appropriation.
* Find the profits available for equity dividend after subtracting dividends payable to preference shareholders.
* Find the Capitalised profit

$$\text{Capitalised profit} = \frac{\text{profit available for Equity dividend}}{\text{Normal Rate of Return}} \times 100$$

* Find the value of share:-

$$\text{Market value of Share} = \frac{\text{Capitalised profit}}{\text{No. of Equity Shares}}$$

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* Alternative Method:-
  - Find average profit
  - Ascertain profit available for dividend
  - Ascertain profits available for Equity shareholders
  - Ascertain Expected Rate of Return

$$\text{ERR} = \frac{\text{Profit available for Equity S.H.}}{\text{Equity Share Capital}} \times 100$$

  - Find the Yield value of share.

$$\text{Value of Share} = \frac{\text{Expected Rate of Return (ERR)}}{\text{NRR (Normal Rate of Return)}} \times \text{Paid up value of Share}$$

• Earning

• Earning Capacity Method / Earning per Share Method
• Ascertain average profit
• Ascertain Capital employed
• Ascertain Rate of Earnings (ROE) of the Company

$$ROE = \frac{\text{Avg profit}}{\text{Capital employed}} \times 100$$

• Find the market value of the share.

$$\text{Market value of Share} = \frac{ROE}{NRR} \times \text{paid up value per share}$$

NRR :- Normal Rate of Return is the rate accepted by the Investor from a particular business in which they have invested.

1) The following is the Balance Sheet of ABC Co. Ltd. as on 31.3.15

Liabilities	₹	Assets	₹
2,000, 8% Preference Shares of ₹[illegible] each	20,000	Buildings	55,000
		Plant & Machinery	11,000
		Patents	10,000
Equity Shares of ₹10 each	50,000	Stock	18,000
		Debtors	40,000
Reserve Fund	10,000	Cash	22,000
P & L A/c	16,000	Preliminary Expenses	6,000
Workmen Savings A/c	15,000		
Creditors	50,000		
	2,10,000		2,10,000

Adjustments:
• It was found that Plant & Machinery was depreciated by ₹5,000
• Revalued value of Building & Goodwill is ₹1,30,000 and ₹20,000
• ₹6,000 worth of debt were bad.
• Preference Share Capital have their rights over Share Capital only.
• Find the Intrinsic value of both Equity Shares & preference Shares.

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Sol[n]: Calculation of Share value under Intrinsic value Method
Calculation of Net Asset

Net Assets-			
Goodwill	20,000		
Buildings	1,30,000		
Plant & Machinery (11,000 - 5,000)	6,000		
Patent	10,000		
Stock	18,000		
Debtors (40,000 - 6,000)	34,000		
Cash	22,000		
		2,40,000	
(-) Liabilities			
Workmen Savings A/c	15,000		
Creditors	50,000		
		65,000	
Net Asset available for all S.H	→	1,75,000	
(-) preferential claims			
a) preference share Capital		20,000	
Net Assets available for Eq. S.H	→	1,55,000	

i) Value of Equity Shares = $\frac{\text{Net A.A. E.S.H.}}{\text{No. of Eq. Shares}}$

$= \frac{₹\ 2,24,000}{8,000}$

$= ₹\ 28$

ii) Value of P. Shares = $\frac{\text{Value of P.S.C}}{\text{No. of P.S}}$

$= \frac{[illegible]}{2,000}$

$= ₹\ 10$

2) Foll. is the B/S of X Co. Ltd as on [illegible]

Liabilities	₹	Assets	
[illegible] preference Shares		Fixed Assets	[illegible]
of ₹100 each	100000	Current Assets	2,30,000
[illegible] equity Shares		Preliminary exp	10,000
of ₹10 each	300,000	Discount on	5,000
[illegible] Debentures	100,000	Debentures	
Depreciation fund	100,000	P & L A/c	65,000
Capital Reserve	30,000		
Creditors	70,000		
	700000		7,50,000

Adjustments:

- Debenture interest is due for 1 year.
- Book debts are included in Current Assets of which 12,000 are doubtful.
- Find the value of Share under Intrinsic Method.

Sol^n:

Calculation of Share value under Intrinsic method

Calculation of Net Asset

Net Assets		
Fixed Assets	2,00,000	
Current Assets (230000-12000)	2,18,000	
		4,18,000
(-) Liabilities		
[illegible] Debentures	1,00,000	
Interest due on debentures (100000×5%)	5,000	
Creditors	70,000	
Depreciation fund	1,00,000	2,75,000
Net Asset available for all Equity Share holders		1,43,000
(-) Preference Share Capital		1,00,000
		1,43,000

Value of Eq. S = $\frac{\text{N.A.A.E.S.H}}{\text{No. of Eq. S}}$

$= \frac{₹\ [illegible]}{30000}$

$= ₹\ [illegible]$

3) The foll. is the B/S of Growth Co. Ltd as on 31.3.15

Liabilities	₹	Assets	₹
1,000 Eq. Shares		Land & Building	[illegible]
of ₹100 each	100000	Plant & Machinery	[illegible]

General Reserve	50000	Short Term Investment (present market value) (₹40000)	48000
P & L A/c	25000		
Creditors	40000		
provision for Taxation	20000		
Provident Fund	10000	Debtors	100000
		Stock	40000
		Cash	10,000
	4,45000		4,45,000

Adjustments:
- G/W is valued at ₹50000
- Depreciate Machinery at 10%
- Land & Building value ₹4,80,000
- You are required to provide 8% reserve for Bad debts.
- 20% is Normal Rate of Return expected by Similar type of business.
- Find the Intrinsic value of Shares

Solⁿ:

Calculation of Share value under Net Asset Method
Calculation of Net Asset

Net Asset		
Land & Building	480000	
Goodwill	50000	
Plant & Machinery (100000-10000)	0,90,000	
Debtors (1,00000-8,000)	92,000	
Short Term Investments	48000	
Stock	40000	
Cash	10,000	
		502,000
(-) Liabilities		
Creditors	40000	
provision for Taxation	20000	
provident Fund	10000	70000
N.A available for all Eq. S.H. →		4,32,000

Value of Eq. S. = $\frac{\text{N.A.A. Eq. S.H}}{\text{No. of Eq. S.}}$

$= \frac{₹4,32,000}{3000}$

$= ₹144$

Q) Foll. is the B/S of 'X' Ltd. as on 31/3/...

Liabilities	₹	Assets	₹
2000 6% P.S of ₹100 each	2,00,000	Fixed Assets	200000
3000 E.S. of ₹10 each	3,00000	Current Assets	300000
Liabilities	1,00000		
	6,00000		6000

Adjustments:
- The present market value of Fixed Assets is 10% more than the book value.
- The value of other assets is less than 5% of the book value.
- There is an unrecorded liability of ₹5,000.
- Equity S.H. have no rights over dividend as well as capital.
- Find value of Equity Shares under Net Asset Method.

Solⁿ:

Calculation of Share value under Net Asset Method
Calculation of Net Asset

Net Assets-

Land & Bu. Fixed Assets [200000×10%] (200000+20000)	220000
Current Assets [300000×5%] (300000-15000)	2,85,000
	5,05,000

: P.S : Eq.S.
= 75,000 : 1,05,000
$\boxed{= 5 : 7}$

(-) Liabilities:
Liabilities (100000 + 5000)

	6,25,000
	1,05,000
Net assets available for all S.H.	5,20,000

Net assets available for Eq S.H [illegible]

Value of Eq. Shares = Net Assets for Eq S.H. / No. of Eq. S.

$= 5,20,000 \times \frac{3}{7}$ = 3,06,000

$= \frac{3,06,000}{3,000}$ = ₹102.00

Note: When there exists preference shares with Equity Shares and P.S. holders don't any [illegible] over their capital and dividend, & are fully paid up, the amount available for share holders has to be distributed to both S.H. in their Capital Sharing Ratio.

Q. The foll. information relates to X Co. Ltd.

Share Capital:

• 12% P.S. of ₹100 each	100000
• 2,000 Eq. S. of ₹100 each 50 paid up	50000
• 1,000 Eq. S. of ₹100 each 75 paid up	75000
• 1,000 Eq. S. of ₹100 each fully paid up	100000

Reserves:

General	200000
P & L A/c	50000
	2,50,000

When the A/c's were scrutinised, it is found that assets have an appreciation of ₹75,000. The AOA have provided that in case of P.S.H. they will have the claim to the extent of ₹10% of surplus assets. Ascertain the value of each Eq S & P.S assuming that the Co. is liquidated.

Soln:
(Liabilities based approach)

Calculation of Share value under net asset method

Share Capital:

Share Capital	3,25,000	
Reserves	2,50,000	5,75,000
(+) Appreciation fund		75,000
		6,50,000
(+) Notional Calls		
• 2,000 Eq S. of ₹100 each 50 called up (2,000 × 50)	1,00,000	
• 1,000 Eq. S. of ₹100 each (75 called up: 1,000 × 25)	25,000	
		1,25,000
(-) P.S.H. [illegible]	1,00,000	
		6,25,000
(-) Eq. S.H. (Face [illegible] × 100)		1,00,000
[illegible] Remaining		5,25,000
(-) 10% transferred to P.S.H. (₹3,25,000 × 10%)		32,500
Surplus avail to Eq. Shareholders		2,92,500

Value of Equity Shares = $\frac{\text{N.A.A. Eq. S.H.}}{\text{No. of Eq. S}}$

$= \frac{200000 + 792100}{[illegible]}$

$= \frac{[illegible]}{[illegible]}$

$= [illegible]$

~~Value of preference shares~~

Note :-

The above value of share is the value of fully paid equity shares. To find the intrinsic value of the partly paid up shares, we need to subtract the value of notional calls made.

Hence, value of partly paid up shares
a) 6000 Eq. Shares, 25 paid up, 75 Notional calls made (=₹197.75 − 75 = ₹122.75)
b) 1000 Eq. Shares, 50 paid up, 50 Notional calls made (= ₹197.5 − 50 = ₹147.5)

6) Following is B/S of SK Ltd as on 31.3.15

Share Capital

30000 Eq. S of ₹10 each fully paid	600000
20000 Eq. S of ₹10 each, ₹8 paid up	200,000
15000 Eq. S of ₹10 each, fully paid	1,50,000
10000 Eq. S of ₹10 each, ₹5 paid up	50,000
Surplus:	
General Reserve	460000
P/L	50000
Creditors	300000

Fixed Assets

Goodwill	200000	
Buildings	1,50,000	
Machinery	50,000	
Short Term Investments	1,30,000	
Current Assets		
Stock	20,000	
Drs.	1,50,000	
B/R	50,000	
Bank	1,30,000	
Miscellaneous exp:-		
Disc on issue of shares	20000	
		1300000

Adjustments:-
- G/W is valued at ₹15,000. Land & Buildings valued at ₹120000. Machinery valued at ₹2,00,000. Short Term Inv had 75,000. Stock at ₹250000. Debtors at ₹1,40,000.
- There was unrecorded liability of 20000.
- Find the value of shares.

Sol:

Calculation of share value under Net Asset Method

Calculation of Net Assets

Net Assets

Fixed Assets

Goodwill	15000	
Buildings	120000	
Machinery	2,00,000	
Short Term Inv	35000	
Stock	2,50,000	
Debtors	1,40,000	
B/R	50000	
Bank	1,30,000	1125,000

Less: Liabilities

Creditors	2,00,000	
Unrecorded liabilities	20,000	2,20,000
Net Assets Available for Shareholders		19,00,000

Value of Share = $\frac{\text{NAA for Eq S.H.}}{\text{Total Eq Capital (paid up)}}$

$= \frac{19,00,000}{[illegible]}$

$= \frac{19,00,000}{10,00,000}$

$= 1.9$

Value of each type of Eq Share

- Value of 20 paid up share, fully paid up
  $= ₹20 \times ₹1.9 = ₹38$
- Value of 20 each, 8 paid up
  $= ₹8 \times ₹1.9 = ₹15.2$
- Value of 10 fully paid up
  $= ₹10 \times ₹1.9 = ₹19$
- Value of 10, 5 paid up
  $= ₹5 \times ₹1.9 = ₹9.5$

Sol:- 7) Calculation of value of Shares under Yield method:

1. Average profit = ₹75,000
2. Calculation of profit available for Eq S.H.

Avg profit	75,000
Less: Transfer to Reserve	15,000
	60,000
Less: Transfer to Preference Dividend (1,00,000 × 10%)	10,000
profit available for Equity Share Holders	50,000

3. Calculation of Capitalised profit:

Capitalised profit $= \frac{\text{profits available for Eq S.H.}}{\text{NRR}} \times 100$

$= ₹\frac{50,000}{10} \times 100$

$= ₹5,00,000$

4. Calculation of Yield value of Share

Yield Value $= \frac{\text{Capitalised profit}}{\text{No of Eq Shares}}$

$= \frac{5,00,000}{20,000}$

$= ₹25$ per share

Alternate Method:-

1. Avg profits = ₹75,000
2. profits available for equity S.H. → ₹50,000
3. Calculation of expected Rate of Return:-

ERR $= \frac{\text{profit available for Eq S.H.}}{\text{Share Capital}} \times 100$

$= \frac{50,000}{5,00,000} \times 100$

$= [illegible]$

4. Value of Share $= \frac{\text{ERR}}{\text{NRR}} \times$ paid up value

$= \frac{[illegible]}{10\%} \times [illegible]$

$= ₹25$ per share

Sol^n 6) Calculation of Share value under Yield Method:-

1. Average profit = ₹3,22,580

2. Calculation of profit available for Eq. S.H.

Average profit	3,22,580
(-) Transfer to [illegible]	1,22,580
(3,22,580 × 38%)	2,00,000
(-) Transfer 20% to Reserve	40,000
(200000 × 20%)	1,60,000
(-) preference dividend	50,000
(50000 × 100)	1,10,000

profit available for Eq.S.H.

3. Calculation of Capitalised profit

$= \frac{NRR}{100} = \frac{E.A.\ Eq.\ S.H.}{NRR} \times 100$

$= \frac{1,10,000}{15} \times 100 = ₹[illegible]$

4. Calculation of Yield value of Shares

$= \frac{\text{Capitalised profit}}{\text{No. of Equity Shares}} = \frac{[illegible]}{5,000}$

$= ₹[illegible]$ per share

7) From the following info., find the value of Share under Yield Method:-

- The paid up share capital of the company includes 1,000, 15% preference shares of ₹100 each and 10000 equity shares of ₹10 each.
- The average annual profits of the Co. after providing depreciation and taxation were ₹75,000. Out of this, the Co. has to transfer ₹10000 to General Reserves before declaring dividend.
- The NRR expected by Interest on Equity Shares from this type of business is 10%.

8) Foll. info relates to Deepika Ltd.

- 4,000, 12% preference shares of ₹100 each of (₹4 lakhs), 5,000 equity shares of ₹100 each
- 5,000 equity shares of ₹100 each ₹5,00,000
- Avg profits before tax ₹3,22,580
- Rate of Tax 38%
- Transfer to be made to Reserve 20%
- NRR 15%
- Ascertain the value of each Equity Share

9) Foll. are the details of XYZ Ltd. as on 31.3.0[illegible]

Issued Eq. Shares of ₹10 each	[illegible]
5% debentures	[illegible]
Current Liabilities	1,12,000
Current Assets	[illegible]
Fixed Assets	[illegible]
Goodwill	[illegible]

Profits for the last 3 years were 51,400, 52,[illegible], 51,[illegible]. 20% is transferred to Reserve. NRR [illegible]. Find the value of Shares under Net Asset Method and Yield Method.

10) Find the value of Shares under
- Net Assets Method
- Yield Method

Liabilities	₹	Assets	₹

30,000 Shares of ₹10 each	3,00,000	Goodwill	50,000
Capital Reserves	1,00,000	Fixed Assets	10,00,000
P & L A/c	50,000	Current Assets	4,00,000
5% debentures	[illegible]		
Creditors	[illegible]		
Prov. for Taxation	[illegible]		
	14,50,000		14,50,000

On 31.3.2003, fixed assets were revalued at ₹12,00,000 and Goodwill at ₹75,000. The profit for the last 3 years were 75,000, 48,000 and 83,000 of which 20% was placed to Reserves. NRR is 10%.

(i) From the following info. given below, and B/S of A Ltd on 31.12.2021, find the value of its equity shares by Intrinsic Value Method and Yield Method.

Company prospects for 2020 are good. Buildings are now worth ₹3,50,000. Profits for the last 3 years have shown an annual increase of ₹50,000.

The annual transferred to Reserves is 25% of Net profit.

Preferential Share have preference as to capital and dividend.

NRR expected is 15%.

Liabilities	₹	Assets	₹
Liabilities		Furniture	2,000
1000 8% preference share of ₹100 each fully paid	1,00,000	Stock (market value)	4,10,000

4,000 Eq. Shares of ₹100 each fully paid	4,00,000	Buildings	70,000
Reserves	4,50,000	Investment	2,35,000
P & L A/c	80,000	(at cost) (Face value ₹4 lakh)	
Add:- profit for 2021	4,30,000	Debtors	2,80,000
(before transfer to Reserve)		Bank	10,000
Creditors	48,000	Preliminary expenses	10,000
	12,08,000		12,08,000

Sol^n 3) Alternate Method

1. Avg profit = ₹3,27,500
2. profit available for Equity S.H. = 1,20,000
3. Calculation of Expected Rate of Returns

$$ERR = \frac{\text{Profit available for Eq. S.H.}}{\text{Share Capital}} \times 100$$

$$= \frac{1,20,000}{5,00,000} \times 100$$

$$= 24\%$$

4. Value of Share $= \frac{ERR}{NRR} \times \text{paid up value}$

$$= \frac{24}{15} \times 100$$

$$= ₹160 \text{ per share}$$

Sol^n 4) Calculation of Value of Shares under Yield Method

1. Average profit $= \frac{51,000 + 52,000 + 51,750}{3}$

$= 51,750$

2. Calculation of profit available for Equity Share Holders:

Average profit 57,150

(-) Transfer to Reserve (57,150 × 20%) 10,750

Profit available for Equity Shareholders 46,400

3. Calculation of capitalised profit

Capitalised profit = $\frac{\text{profit available for Equity Shareholders}}{NRR} \times 100$

$= \frac{46,400}{10} \times 100$

$= 4,64,000$

4. Calculation of Yield Value of Share

Yield value = $\frac{\text{Capitalised profit}}{\text{No of Equity Share}}$

$= \frac{5,16,000}{50,000}$

$= ₹10.35$ per share

Alternate Method:-

1. Avg profit = 57,750

2. profit available for Eq S.H. = 46,400

3. Calculation of Expected Rate of Return

ERR = $\frac{\text{profit available for Equity S.H.}}{\text{Share Capital}} \times 100$

$= \frac{46,400}{5,00,000} \times 100$

$= 10.35\%$

4. Value of Shares = $\frac{ERR}{NRR} \times$ paid up value

$= \frac{10.35}{10} \times 10$

$= ₹10.35$ per share

Sol:-

(i) Calculation of Share Value under Net Asset Method

Calculation of Net Asset

Net Asset		
Fixed Assets	12,00,000	
Current Assets	6,00,000	
Goodwill	75,000	
		18,75,000
(-) Liabilities		
5% Debentures	1,00,000	
Creditors	2,00,000	
Prov for Taxation	1,00,000	3,00,000
		11,75,000

Value of Equity Shares = $\frac{\text{Net Assets}}{\text{No of Eq Shares}}$

$= \frac{11,75,000}{80,000}$

$= ₹14.68$ per Share

Yield Method:-

Calculation of Share Value under Yield Method

Note:- Since, the profits are in increasing trend, we need to assign the weights to find weighted avg profits

1. Calculation of Weighted Average profit:

Year	profit	Weight	Weighted profit
1	75,000	1	75,000
2	78,000	2	1,56,000
3	87,000	3	2,61,000
	Total	6	4,92,000

W.A.P = $\frac{4,92,000}{6}$ = 82,000

2. profit available for Equity Shareholders
W.A.P 82,000
(-) Transfer to Reserve (82000×20%) 16,400
65,600

3. Calculation of Capitalised profit
= $\frac{\text{profit available for Equity Shareholders}}{\text{NRR}} \times 100$
= $\frac{65600}{10} \times 100$
= 6,56,000

4. Calculation of Yield Value of Share
= $\frac{\text{Capitalised profit}}{\text{No. of equity Shares}}$
= $\frac{6,56,000}{8000}$
= ₹82 per share

Valu[illegible]

II. Calculation of Share Value under Market value of Assets:-

Amount of Dividend - A/c dividend payable

Buildings	350000	
Furniture	3,000	
Stock	4,50000	
Investments	2,75000	
Debtors	2,80,000	
Bank	10,000	
(-) Liabilities		13,78,000
Creditors	48,000	
(-) preference Claims-		13,30,000
Preference Share Capital		100000
Amount available for Equity S.H.		12,30,000

Value of Share = $\frac{12,30,000}{4,000}$

= ₹332.50 per Share

Yield Method:-
- Calculation of Avg profit

profits for the year	4,30,000
(+) Increase in the profit	50,000
	4,80,000
(-) Transfer to Reserve (25%)	120000
	360,000
(-) Transfer to preference dividend	8,000
(1,00,000 × 8%)	1,52,000

- Calculation of Capitalised profit:
Capitalised profit = $\frac{\text{E.P.S.H}}{\text{NRR}} \times 100$
= $\frac{3,52,000}{15} \times 100$
= ₹23,46,667

[illegible]

- Share value = $\frac{\text{Capitalised profit}}{\text{No. of Equity Shares}}$

$= \frac{[illegible]}{4,000}$

$= [illegible].66$ per share

Alternate Method:

- Average profit = ₹[illegible]
- profit available for Equity S.H. = ₹3,52,000
- Calculation of ERR

ERR = $\frac{\text{PAESH}}{\text{Share Capital}} \times 100$

$= \frac{3,52,000}{4,00,000}$

$= 88\%$

- Yield Value = $\frac{ERR}{NRR} \times$ paid up value

$= \frac{88\%}{15\%} \times 100$

$= 586.66$ per share

Note:

As the problem is not specific about the arrears of preference dividend, we should not subtract the amount of dividend from the amount available for the S.holders.

(2) From the foll. B/S of Surya Ltd

Equity Share Capital	1400000	Goodwill	2,00,000
Reserves & Surplus	200000	Fixed Assets	24,00,000
Debentures	600000	Other Assets	400000
Creditors	600000		
prov. for Taxation	1,00000		
	3000000		3000000

On the above date, there was a scrutiny of books of a/cs and Assets were revalued. G/W 1,00,000, Fixed Assets ₹3000000.

The profits of the Co for the past 3 years were 2,40000, 2,80000, 3,05,000, of which 20% is placed to Reserves.

NRR is 10%

The other assets includes book debts of ₹2,00000 of which 15% is bad.

Find the value of Shares under
- Net Asset Method.
- Yield Method.

Calculation of Share value under Net Asset Method.

Market value of Assets

Fixed Assets	3000000	
Goodwill	100000	
Other Assets (4,00000 - 30000) [₹200000 × 15%]	3,70000	
		34,70000
(-) Liabilities		
Debentures	600000	
prov. for Taxation	100000	
Creditors	600000	1300000
Net Assets available for E.S.H.		2170000

Value of Share = $\frac{\text{NAAESH}}{\text{No. of Eq Shares}}$

= 15,76,000 / [illegible]

= ₹ [illegible] per share

Yield Method

• Calculation of weighted avg profit:

Year	profit	weight	WAP
1	[illegible]	1	[illegible]
2	[illegible]	2	[illegible]
3	[illegible]	3	[illegible]
Total	[illegible]	6	17,15,000

WAP = ₹ 17,15,000 / 6

= ₹ 2,85,833.3

• profit available for Equity shareholders

E.P.F. 2,85,833

(-) transfer to Reserve ([illegible]) [illegible]

2,28,666

• Calculation of Capitalised profit

= [illegible] / N.R.R. × 100

= [illegible] × 100

= [illegible]

• Yield value of share

= Capitalised profit / No. of shares [illegible]

= [illegible] / [illegible] = ₹ [illegible] per share

Alternate Method

• Average profit = ₹ 2,85,833.3

• profit available for Equity sh. = ₹ 2,28,666

• Calculation of E.R.R.

E.R.R. = P.A.E.S.H. / Share Capital × 100

= [illegible] × 100

= 14.[illegible]

• Yield value = E.R.R. / N.R.R. × paid up value

= [illegible] × 10

= 15.[illegible]

Q) From the following B/S of [illegible] you are required to calculate value of each share under net asset method, yield method and fair value method & Market Value Method.

Liabilities	₹	Assets	₹
Share Capital		Goodwill	[illegible]
[illegible] each	[illegible]	Fixed Assets	[illegible]
Reserve fund	[illegible]	Current Assets	[illegible]
P & L A/c	[illegible]	preliminary	
[illegible] Debentures	[illegible]	expenses	[illegible]
Current liabilities	[illegible]		
	[illegible]		[illegible]

Adjustments:-

Sol^n. Calculation of Share Value under [illegible] method

Market value of Assets

Goodwill	[illegible]	
Fixed Assets	[illegible]	
Current Assets	[illegible]	
		[illegible]
Less: Liabilities		
9% Debentures	[illegible]	
Current Liabilities	[illegible]	[illegible]
		[illegible]

Share Value = [illegible] / No of equity share

= [illegible] / [illegible]

= ₹[illegible] per share

Yield Method.

• Calculation of weighted avg profit

Year	profit	weight	WAP
1	[illegible]	1	[illegible]
2	[illegible]	2	[illegible]
3	[illegible]	3	[illegible]
		6	[illegible]

WAP = ₹[illegible] / 6 = ₹[illegible]

• profit available for equity shareholders

WAP	[illegible]
Less: Transfer to Reserve ([illegible])	[illegible]
	[illegible]

• Calculation of capitalised profit

= [illegible] × 100

= [illegible] × 100

= [illegible]

• Yield value of Share

= Capitalised profit / No of equity share

= [illegible] / [illegible]

= [illegible] per share

Alternate Method

• Average profit = ₹[illegible]

• profit available for equity share = [illegible]

* Calculation of E.R.R.

E.R.R. = $\frac{E.A.E.D.T}{\text{Share Capital}} \times 100$

$= \frac{[illegible]}{[illegible]} \times 100$

$= 16.10\%$

* Value of Share = $\frac{E.R.R.}{N.R.R.} \times$ paid up value

$= \frac{16.10}{10} \times [illegible]$

$= ₹16.10$ per share

Fair Value = $\frac{\text{Intrinsic value} + \text{Yield value}}{2}$

$= \frac{14.82 + 16.10}{2}$

$= ₹15.46$ per share

(iii) B/S of Diamond Co. Ltd. as on [illegible]. Issued subscribed and paid up capital

2,000 Equity Shares of ₹100 each	2,00,000
General Reserve	90,000
P & L A/c	32,000
Sundry Creditors	1,58,000
Income Tax Reserve	62,000
Land & Building	[illegible]
Plant & Machinery	1,82,000
Patents and Trademark	14,000
Stock	78,000
Debtors	68,000
Bank	72,000
Preliminary exp	12,000
	5,42,000

The experts valued Land & Building at [illegible], P&M at [illegible], P&M at 1,38,000. Out of Debtors Rs. 8,000 are bad. The profit for Co. are ₹70,000, ₹60,000 and ₹1,06,000.

25% out of profits are transferred to Reserve. Similar type of firm have 10% has condition for return on investment (NRR). Calculate value of share under:
* Intrinsic Method
* Yield Method
* Fair Value Method
* Earning Capacity Method.

Net Asset Method:

Market value of Assets

Land & Building	1,42,000	
Plant & Machinery	1,38,000	
Stock	78,000	
Patents & Trademarks	14,000	
Debtors (68,000 - 8,000)	60,000	
Bank	72,000	
		[illegible]
(-) Liabilities		
Sundry Creditors	1,58,000	
Income Tax Reserve	62,000	2,20,000
Net Assets available for Eq. Sh.		[illegible]

Share Value = $\frac{NAFESH}{\text{No. of Eq. Shares}}$

$= \frac{5,32,000}{2,000}$

$= ₹266$ per Share

Yield Method:

* Average profit = $\frac{[illegible] + 1,06,000}{[illegible]}$

$= ₹92,000$

* profit available for Equity Shareholders:

Average profit	92,000
(-) Transfer to Reserve (25%)	23,000
PAEqSH	69,000

* Calculation of Capitalised profit

Capitalised profit $= \frac{PAESH}{NRR} \times 100$

$= \frac{69,000}{10} \times 100$

$= ₹6,90,000$

* Yield value = $\frac{\text{Capitalised profit}}{\text{No. of Eq. Shares}}$

$= \frac{6,90,000}{2,000}$

$= ₹345$ per share

Fair Value Method:

Fair Value = $\frac{\text{Intrinsic Value} + \text{Yield Value}}{2}$

$= \frac{266 + 345}{2}$

$= \frac{611}{2} = ₹305.5$ per Share

Earning Capacity Method:

* Average profit = ₹92,000

~~profit available for Equity Shareholders = ₹[illegible]~~

* Calculation of Capital employed:

Assets:		
Plant & Machinery	1,20,000	
Land & Building	3,40,000	
Stock	48,000	
Debtors	20,000	
Bank	12,000	5,40,000
(-) Liabilities		
Creditors	1,28,000	
Income Tax Reserve	60,000	1,88,000
Capital Employed		3,52,000

* Calculation of [illegible] rate of earnings

Rate of Earnings $= \frac{\text{Average profit}}{\text{Capital employed}} \times 100$

$= \frac{92,000}{[illegible]} \times 100$

$= [illegible]\%$

* Value of share = $\frac{RROE}{NRR} \times$ paid up value

$= \frac{26,132 \times 100}{15}$

$= ₹\ [illegible]$ per Share

(c) On 31.3.10, the B/S of ABC Ltd. was being extracted

Issued Capital	₹	Assets	₹
of ₹10 each	4,00,000	Fixed Assets	5,00,000
Reserves	80,000	Investments	2,00,000
P & L A/c	20,000	[illegible]	60,000
Debentures	1,00,000		
Current Liabilities	1,20,000		
	7,60,000		7,60,000

On 31/3/[illegible], Fixed Assets were revalued at ₹ 750000, [illegible] is valued at 70000. The profits for the year were ₹51,000, ₹52,000, ₹51,450, of which 20% is placed to Reserve. NRR is 10%. Find value of Shares under
* Intrinsic Method
* Yield Method
* Earning Capacity Method.

Sol^n:-

* Calculation of Share Value under Intrinsic Value Method
  Market value of Assets:

Fixed Assets	7,50,000	
Current Assets	2,07,000	
Goodwill	70,000	
(-) Liabilities:-		6,00,000
Debentures	1,00,000	
Current Liabilities	1,20,000	2,20,000
Net Assets available for Eq. S.H.		3,70,000

Share Value = $\frac{NAAESH}{\text{No of Eq. Shares}}$

$= \frac{370000}{40,000}$

$= ₹9.25$ per Share

Yield Value:-

* Average profit $= \frac{51,000 + 52,000 + 51,450}{3}$

$= 51,750$

* profit available for Equity Shareholders

Average profit	51,750
(-) Transfer to Reserve (20%)	10,350
	41,400

* Calculation of Capitalised profit

Capitalised profit $= \frac{PAESH}{NRR} \times 100$

$= \frac{41,400}{10} \times 100$

$= 4,14,000$

* Yield Value $= \frac{\text{Capitalised profit}}{\text{No of Eq. Shares}}$

$= \frac{4,14,000}{40,000}$

$= ₹10.35$ per Share

Earning Capacity Method:-

* Average profit $= ₹51,750$
* profit available for Eq. S.H. $= ₹41,400$
* Calculation of Capital Employed:-

Assets

Fixed Assets		2,00,000	
Current Assets		3,19,000	
			5,19,000
(-) Liabilities			
Debentures		1,00,000	
Current Liabilities		1,32,000	2,32,000
Capital Employed			3,20,000

• Calculation of rate of earnings:

Rate of Earnings $= \frac{\text{Avg profit}}{\text{Capital Employed}} \times 100$

$= \frac{51,750}{3,20,000} \times 100$

$= 16.17\%$

• Calculation of Value of Shares

Value of Share $= \frac{ROE}{NRR} \times \text{Paid up Value}$

$= \frac{16.17}{10} \times 10$

$= ₹16.17$ per Share

(e) The foll. details are extracted from XY Ltd. 31.3.21.

20,000 Equity Shares of ₹10 each fully paid	2,00,000
20,000 Equity Shares of ₹10 each ₹7.5 paid up	1,50,000
20,000 Equity Shares of ₹10 each ₹5 paid up	1,00,000
General Reserve	1,00,000
Liabilities	2,10,000
F.A.	3,60,000
C.A.	4,00,000
Normal Avg profits (after taxation)	60,000

Estimated Rate of Capitalisation 20%, transfer to Reserves 20%. Calculate value of each type of Share under Net Earning Method, Yield Method

Sol: Net Earning Method / Net Asset Method:-

Share Capital	4,50,000	
Reserves	1,00,000	5,50,000
(+) Notional Calls		
• 20000 eq. S. of ₹10 each (20000 × 2.5)	50,000	
• 20000 eq. S. of ₹10 each (20000 × 5)	1,00,000	1,50,000

Assets -

	[illegible]	
S.E	[illegible]	[illegible]
C.R		[illegible]
Ls Liabilities		[illegible]
Net Asset [illegible]		[illegible]
Ls preference Shares		
Net Asset available for Eq. Sh.		[illegible]

Share Value = $\frac{\text{NAAESH}}{\text{No. of Eq. Share Capital (paid up)}}$

$= \frac{[illegible]}{[illegible]}$

$= \frac{[illegible]}{[illegible]}$

= ₹ [illegible] per Share

Yield Method.

- Average profit = [illegible]
- profit available for Eq. Sh.

Avg. profit	[illegible]
Ls Transfer to Reserve [illegible]	[illegible]
	[illegible]

- Capitalised profit = $\frac{\text{PAESH}}{\text{NRR}} \times 100$

$= \frac{[illegible]}{[illegible]} \times 100$

- E.RR = $\frac{\text{PAESH}}{\text{Share Capital}} \times 100$

$= \frac{[illegible]}{[illegible]} \times 100 = [illegible]$

Value of shares = $\frac{\text{ERR}}{\text{NRR}} \times$ paid up value

a) $= \frac{[illegible]}{[illegible]} \times 10$ b) $\frac{[illegible]}{[illegible]} \times 7.5$ c) $\frac{[illegible]}{[illegible]} \times 5$

= ₹ [illegible] per share = ₹ [illegible] per share = ₹ [illegible] per share

17) Follo. is B/S of Company

5,000 Eq. S. of ₹100 each	5,00,000
P & L A/c	[illegible]
B.O.D	[illegible]
Creditors	[illegible]
prov. for Taxation	[illegible]
proposed Dividend	[illegible]
Land & Building	[illegible]
plant &	[illegible]
Stock	[illegible]
Sundry debtors	[illegible]
	[illegible]

Net profit of Co. after depreciation and taxation were

2005-2006	[illegible]
[illegible] 07	[illegible]
[illegible]	[illegible]
08-09	[illegible]
09 [illegible]	[illegible]

On March [illegible] Land & Building were revalued at [illegible] plant & Machinery at [illegible] & [illegible] NRR is [illegible]

Ascertain Value of Share under

- Net Asset Method
- Yield Method
- Fair Value Method

Q. The data details of Capel Ltd. as on 31.03.2[illegible]

Share Capital: | | E.P | 6,80,000
[illegible] Eq Shares | | C.P | 2,10,000

of ₹10 each	[illegible],000
[illegible] Eq Shares of ₹10 each ₹7 paid	35,000
" " ₹ paid up	10,000
General Reserve	50,000
Liabilities	1,85,000

The avg profit (after tax) [illegible] estimated to be [illegible]. Estimated Rate of Capitalisation is 10% (NRR). Transfer 10% to General Reserve. Find value of equity shares.

- Asset Backing Method (excluding [illegible])
- Yield Method

Sol: Assets Calculation of Share value under NAM:

Assets

Land & Building	2,00,000
Plant & Machinery	4,00,000
G.W	1,80,000
Stock	1,50,000
Sundry Debtors	1,55,000
	10,55,000
(-) Liabilities	
Bank Overdraft	20,000
Creditors	32,000
Provision for Tax	45,000
Proposed Dividend	25,000
	1,22,000
Net assets available for Eq. S.H.	9,[illegible],000

Share value = $\frac{\text{NAAESH}}{\text{No. of Eq Shares}} = \frac{9,38,000}{6,000}$

= ₹157 per Share

Yield Method:

- Average profit = $\frac{85000 + 91000 + 92000 + [illegible] + [illegible]}{5}$

= $\frac{4,65,500}{5}$ = ₹93,100

- Profit available for Equity Shareholders

Avg profit	93,100
(-) Transfer to Reserve	
Profit available for Eq S.H.	93,100

- Capitalised profit = $\frac{\text{PAESH}}{\text{NRR}} \times 100$

= $\frac{93,100}{10} \times 100$

= ₹9,31,000

- Yield value = $\frac{\text{CP}}{\text{No. of Eq Shares}} = \frac{9,31,000}{6,000}$

= ₹155 per Share

Alternative Method

- Average profit = ₹93,100
- Profit available for Eq S.H. = ₹93,100
- CRR = $\frac{\text{PAESH}}{\text{Share Capital}} \times 100$

= $\frac{93,100}{[illegible]} \times 100$

= 1[illegible].[illegible]%

* Value of Share = $\frac{ERR}{NRR}$ × paid up value

= $\frac{18.[illegible]}{[illegible]}$ × 100

= ₹ 188.[illegible] per share

Fair Value Method

Fair Value = $\frac{\text{Intrinsic value} + \text{Yield value}}{2}$

= $\frac{1[illegible] + 18[illegible]}{2}$

= $\frac{[illegible]}{2}$

= ₹ 1[illegible] per share

(1) Calculation of Share value under NAM

* Assets

FA	1,80,000	
CA	2,00,000	
(-) Liabilities		
Liabilities		1,25,000
	1,25,000	
Net Assets available for Eq.S.H.		2,75,000

* Total Equity Capital = ₹ 2,25,000

Value of Share = $\frac{NAAESH}{\text{Total Eq. Share Capital (paid up)}}$

= $\frac{275000}{225000}$

= ₹ 1.22 per share

Value of each type of Equity Shares

a) Value of 10 paid up shares, fully paid up

= 10 × 1.22 = ₹ 12.2 per share

b) Value of ₹10 each, ₹7.5 paid up

= 7.5 × 1.22 = ₹ 9.15 per share

c) Value of ₹10 each, ₹5 paid up

= 5 × 1.22 = ₹ 6.1 per share

Yield Method:

* Avg profit = ₹ 30000
* Profit available for Eq.S.H.

Avg profit	30000
(-) Transfer to Reserve (20%)	6000
PAEqS.H.	24000

* ERR = $\frac{PAESH}{\text{Share Capital}}$ × 100

= $\frac{24000}{235000}$ × 100

= ₹ 10.[illegible]

* Value of Shares = $\frac{ERR}{NRR}$ × paid up Value

a) = $\frac{10.[illegible]}{10}$ × 10 = ₹ 10.[illegible] per Share

b) = $\frac{10.[illegible]}{10}$ × [illegible] = ₹ [illegible] per Share

c) = $\frac{10.[illegible]}{10}$ × 5 = ₹ [illegible] per Share

Date:

3 VALUATION OF GOODWILL

Introduction :-

The [illegible] goodwill is the extra value attached to [illegible] business over and above the [illegible] [illegible] of its net assets. It is also a present value of [illegible] future anticipated super normal earnings. [illegible] normal earnings means the excess earnings attributable to the [illegible] tangible and intangible assets other than goodwill [illegible] by a representative firm in the same industry.

Definition of Goodwill:

Acc. to Hatfield, "Goodwill is the present value of expected future returns in excess of normal returns on investment in net tangible assets".

Acc. to Lord Eldon, "When a man pays for goodwill, he pays for something which puts him in a position of being able to earn more than he would be able to do by his own unaided efforts".

Types of Goodwill:

- Purchased goodwill

It arises only when a business enterprise is acquired by the another business enterprise and the price paid is more than the net assets acquired.

- Non-purchased goodwill:

This arises only when a business generates its own goodwill over a period of time due to various factors such as location, good management, good quality products, sales policies, good public image, etc.

Features of Goodwill:

- It is an intangible asset.
- It is a real asset but not a fictitious asset.
- It represents non-physical value over and above the physical assets.
- It is [illegible] only if it is capable of being transferred from one person to another person.
- Goodwill is subject to fluctuations.

Factors determining the value of goodwill:-

- Location factors
- Nature of Business
- The efficiency of management
- The past profits of the business
- Stability of the business
- Other factors such as general economic conditions, economic stability, govt. policies, [illegible] etc.

Circumstances to value Goodwill:

- In case of [illegible] concerns.
  - a) When sole trading concern is sold.
  - b) When sole trading concern is converted into partnership firm or Joint Stock Company.
  - c) When two [illegible] concerns is amalgamated.

* In case of partnership firm
  a) In case of admission of a partner
  b) On retirement of a partner
  c) On the sale of partnership firm to a Limited Company.

* In case of Joint Stock Company
  a) When there is amalgamation, absorption or external reconstruction of the Company.
  b) When there is acquisition of Shares by a Holding Company
  c) When the firm book value its shares

Methods of Valuation of Goodwill:-
* Average profits Method
* Capitalisation Method
* Super profits Method
* Annuity Method

* Average profit Method:
  Steps for Calculation of Goodwill.
1. Calculation of adjusted profit
   proforma for Calculation of adjusted profit

particulars	Amt
profits	XXX
(+) All expenses and loss not likely to occur in future (Extraordinary Salary of a person, Loss from theft or from fire, any capital loss)	XXX
(-) All profits likely to come in future (profit due to new line of business)	XXX
(-) All expenses and losses expected to occur in future (Salary of directors, insurance of stock in future, depreciation in future, Cost Management or any other expenses not provided earlier but are to be incurred in future)	XXX
(-) profit not likely to occur	XXX
(+) Overvaluation of Opening Stock	XXX
Undervaluation of Closing Stock	XXX
(-) Overvaluation of Closing Stock	XXX
Undervaluation of Opening Stock	XXX
Adjusted profit →	XXX

2. Calculation of adjusted average profit:
   The adjusted avg profit can be ascertained under 2 methods
   a) Simple Average
      Under this method, all adjusted profits of all the years are added, later divided by number of years
   b) Weighted adjusted avg profit
      If the adjusted profit are either in increasing or decreasing trend, then weights has to be assigned for each year to get weighted avg adjusted profit adjust profit
      The formula to find weighted avg:

$$= \frac{\text{Weighted profits}}{\text{total weights}}$$

3. Calculation of Goodwill
   Goodwill = Weighted avg adjusted profit × No. of years of purchase

* Capitalisation Method:-

It has 2 methods:-

a) Capitalisation of avg profit

b) Capitalisation of super profit

a) Capitalisation of avg profit:-

1. Calculation of adjusted avg profit
2. Calculation of total value of business

$$TVB = \frac{\text{adjusted avg profit}}{\text{Normal rate of Return}} \times 100$$

3. Calculation of goodwill

Goodwill = TVB − Capital Employed

b) Capitalisation of super profit:

It can be ascertained directly by calculating the super profit and the Normal Rate of Return

$$\text{Goodwill} = \frac{\text{Super profit}}{NRR} \times 100$$

* Super profit Method:

1. Calculation of adjusted avg profit
2. Calculation of ~~capital~~ avg capital employed

Avg capital employed can be ascertained under 2 approaches:-

a) Asset based Approach

particulars	
Assets (other than non-trading assets, goodwill and past deferred expenses and losses such as preliminary exp., dis. on issue of shares & Debentures) at market value	xxx
(-) Liabilities to outsiders	xxx
(+) Revised value if any	xxx
Capital Employed	xxx
(-) half of the profit earned in the yr	xxx
Average Capital Employed →	xxx

b) Liabilities Approach Method

Equity Share Capital	xxx
preference Share Capital	xxx
Reserves and Surplus	xxx
profit on revaluation of assets & liabilities	xxx
	xxx
(-) Goodwill (Book value)	xxx
Losses and past expenses not yet written off	xxx
Loss on revaluation	xxx
Capital Employed →	xxx
(-) half of the profit earned during the year	xxx
Average Capital Employed →	xxx

Note:- if the problem has specifically given the capital employed then there is no need to calculate average capital employed

3. Calculation of Normal profit:-

NP = Avg capital employed × NRR

4. Calculation of super profit:-

SP = Adjusted avg profit − Normal profit

5. Calculation of Goodwill:-

Goodwill = Super profit × No. of yrs of purchase

* Annuity Method:-

In this method, the steps upto super profit are same, Goodwill value is ascertained by taking the annuity value of a rupee.

∴ Goodwill = Super profit × Annuity value.

1) The foll. are the profits of the Company for the past 5 years

Year	1	2	3	4	5
profits	80000	[illegible]	70000	80000	85000

You are required to find the value of Goodwill for 3 years of purchase of average profit

Solⁿ:-

average profit = $\frac{\text{Sum of profits}}{\text{No. of years}}$

$= \frac{79,000 + 70,000 + 85,000 + \ldots + 83,000}{5}$

$= 78,000$

Value of Goodwill = Average profits × No. of years of purchase

$= 78,000 \times 3$

$= ₹2,34,000$

2) Find the value of Goodwill for 6 years of purchase of avg profits, if the profits of the Company are as follows

Year	1	2	3	4	5
profits	62,000	70,000	75,000	78,000	90,000

Solⁿ:-

Since the profits are in increasing trend, G/W value is ascertained by assigning the weights for all the years

Year	profit	weights	weighted profit
1	62,000	1	62,000
2	70,000	2	1,40,000
3	75,000	3	2,25,000
4	78,000	4	3,12,000
5	90,000	5	4,50,000
		15	11,89,000

Weighted Avg profit = $\frac{11,89,000}{15}$

$= ₹79,266$

Value of G/W = WAP × No. of yrs of purchase

$= 79,266 \times 6 = ₹4,75,596$

3) Mr. Imran was doing a business & is interested to sell his business at 1,12,000. From the foll. details, find the value of Goodwill based on 3 years of purchase of avg profits across 4 years

Year	profits
2003-04	2,00,000
2005-06	2,40,000
	3,00,000
	3,40,000

(i) At the time of acquisition of business, an employee is appointed as MD of the firm with a salary of ₹6,000 per month.

profits for 2006 included the income from investment of ₹12,000. the profits of 2005 were being reduced by ₹30,000 as loss on speculation. Similarly, the profits of 2006 were reduced by ₹20,000 due to loss from horse race.

Solⁿ:-

1. Calculation of adjusted avg profit:-

Particulars	2003(₹)	2004(₹)	2005(₹)	2006(₹)
profit for the yr.	1,02,000	1,40,000	2,00,000	3,40,000
(i) Expenses & loss not likely to occur in future				
a) Speculation loss	10,000	-	-	-
b) Loss from horse race	-	-	1,00,000	-
	1,12,000	1,40,000	3,00,000	3,40,000
(ii) profit likely to occur in future	-	-	-	-
	2,10,000	2,50,000	[illegible]	3,40,000
(iii) Expenses & losses likely to occur in future (2000×?)	12,000	12,000	12,000	12,000
	1,18,000	1,28,000	2,38,000	[illegible]
(iv) profits & income not likely to occur in future				
a) profit on sale of investment	-	-	-	20,000
Adjusted profit	1,88,000	1,28,000	3,38,000	2,82,000

Adjusted Avg profit = $\frac{\text{Sum of Adj. profit}}{\text{No of years}}$

$= \frac{1,88,000 + 1,28,000 + 3,38,000 + 3,18,000}{4}$

= ₹2,38,000

Que:

Q) Mr. A intends to sell his business on 1.4.07. Find the value of G/W for 3 yrs of avg profit from foll. details:

Value of G/W = Adj. Avg profit × No of yrs of

= 2,38,000 × 3

= ₹7,14,000

- profits:- 50,000, 72,000, 40,000
- The firm's profit in the 1st year was reduced by ₹6,000 for Speculation.
- There was an increase in profit for the first year due to sale of investment of ₹7,000
- Mr. A was appointed as a Manager in similar type of bus. & drawing a Salary of ₹2,000 per month.

Sol:-

Q) Mr. Ramesh purchased business from Suresh on 1.4.2001 & profits earned were as follows

Year	profit
1999	5,00,000
2000	6,00,000
2001	5,40,000

It was found that profit of 1999 included non-recurring income of ₹20,000 and the profit of 2000 was reduced by ₹30,000 due to abnormal loss on a/c of accident. Fire accident, the assets of bs. were not insured, so they decided to insure at premium of ₹5,000 p.a. Mr. Ramesh at the time of purchase of business was employed as a Manager at a similar business concern at a Salary of ₹20,000 per month. He intends to replace the manager of business who is drawing the salary of ₹3,500 pm.

The firm's G/W is estimated at 3 years of purchase of avg profit. Calculate G/W.

Sol^n

Statement showing adjusted profit

particulars	1999	2000	2001
profits	5,00,000	6,00,000	5,40,000
(A) Expenses and loss not likely to occur in future			
i) loss due to fire	-	20,000	-
ii) Salary of old (retired) employee	80,000	80,000	80,000
	5,80,000	7,00,000	6,20,000
(B) profits likely to occur in future	-	-	-
(-) a) Managers salary (10000 × 12)	1,20,000	1,20,000	1,20,000
b) Insurance premium	5000	5000	5000
	4,55,000	5,75,000	5,05,000
C) profits not likely to occur in future			
a) Non Recurring income	10,000	-	-
Adjusted profit	4,45,000	5,75,000	5,05,000

Calculation of Avg Adj profit -

$A.A.P = \frac{4,45,000 + 5,75,000 + 5,05,000}{3}$

$A.A.P = ₹5,08,333$

Calculation of Goodwill:-

Goodwill = AAP × yrs of purchase

= ₹5,08,333 × 3

Goodwill = ₹15,25,000

Q2) ABC Co. Ltd decided to purchase the firm whose profits for the 4 yrs were as follows:-

Year 1998 1999 2000 2001

profit 60000 70,000 48,000 75,000

The firm is engaged in alternative employment. If not engaged in B/S, the Salary would be ₹3,000 p.a. Find the value of G/W for 3 yrs of avg profits.

Q3) The foll. details are available in respect of B/S of Mr B. The profits earned

Year 1999 2000 2001

profit 50,000 42,000 52,000

profit of 2000 was reduced by ₹5,000 due to stock destroyed by fire.

profit of 1999 included a non-recurring income of ₹2000.

profit of 2001 include ₹2000 income on investment.

The stock is not insured and Mr B wants to insure the stock at an estimated insurance premium of ₹500 p.a. The fair remuneration to proprietor is ₹10,000 p.a.

Find value of G/W based on 3 years of purchase of avg profits.

Q4) Mr A wants to purchase of Mr Y B/S having foll. profits

Year 1998 1999 2000 2001

profit 1,01,000 1,24,000 1,00,000 1,50,000

weights 1 2 3 4

The foll. details are available:-

• On 1.1.2000 there was a repair with respect of plant & machinery of ₹30,000.

This amt was charged to Revenue A/c.
• The said sum is agreed to be capitalised for Goodwill subject to adjustment of depreciation 10% reducing balance method.
• The C.S for the yr 1999 was overvalued by ₹12,000.
• The annual charge of ₹24,000 should be made to meet the mgt expenses.
Find G/W for 3 years of purchase.

Sol:-

Statement showing adjusted profit

Particulars	1998	1999	2000	2001
Profit	1,01,000	1,24,000	1,00,000	1,50,000
(+) Major repairs charged to Revenue A/c	-	-	30,000	
	1,01,000	1,24,000	1,30,000	1,50,000
(-) Depreciation on capitalised exp. (Capitalised exp 10% [30,000 - 3,000] (on reducing bal))			3000	2,700
	1,01,000	1,24,000	1,27,000	1,47,300
(-) Overvaluation of C.S		12,000		
	1,01,000	1,12,000	1,27,000	1,47,300
(+) Overvaluation of C.S			12,000	
	1,01,000	1,12,000	1,39,000	1,47,300
(-) Mgt expenses	24,000	24,000	24,000	24,000
Adjusted profit	77,000	88,000	1,15,000	1,23,300

Calculation of weighted Avg profit

Year	Profit	Weight	Weighted profit
1998	77,000	1	77,000
1999	88,000	2	1,76,000
2000	1,15,000	3	3,45,000
2001	1,23,300	4	4,93,200
		10	10,91,200

$WAAP = \frac{10,91,200}{10}$ $\quad$ G/W = WAAP × no. of yrs purchase

$= ₹1,09,120$ $\quad$ $= 1,09,120 \times 3$

G/W = 3,27,360

Note:- • Any repairs on Assets should be treated as capital expenditure and should be charged to Capital A/c.
• Any adjustments in C/S or O/S will be having dual effect in the profits.

Q) ABC Ltd purchased the b/s XYZ Ltd. Find the value of G/W on 3 yrs of purchase based on weighted avg for 4 yrs.

Year	2001	2002	2003	2004
Profit	40,000	46,000	50,000	75,000
Weight	1.0	1.5	3.5	4.0

• The Co. purchased new furniture on 30.6.3 which was entered in purchase day book.
• The value of furniture is ₹20,000.
• For purpose of valuation of G/W, the error was rectified and depreciation is provided at 10% under reducing balance method.
• The C/S of yr 2003 was undervalued by ₹2,500.

- Anticipated additional expenses in administration is ₹5,000

Sol^n:

Statement showing adjusted profit.

particulars	2001	2002	2003	2004
profit	40,500	46,500	60,000	75,000
(+) purchase of furniture	-	-	10000	-
	40,000	46,500	70000	75,000
(-) depreciation of 10% on RBM				
5/12 × (10000 × 10%)	-	-	500	-
(10,000 - 500) (9,500 × 10%)				950
(+) Undervaluation	40,000	46,500	69,500	74,050
of st	-	2,100	-	-
	40,500	48,600	69,500	74,050
(-) Undervaluation	-	-	2500	-
of C.S	40,500	48,000	67,000	74,050
(-) Additional exp	5,000	5,000	5,000	5,000
Adjusted profit	35,500	43,000	62,000	69,050

Calculation of weighted adjusted avg profit:

Year	profit	weight	weighted profit
2001	35,500	1	35,500
2002	43,000	2.5	1,18,000
2003	62,000	3.8	2,35,600
2004	69,050	4.2	2,90,010
		11.5	6,71,110

$$WAAP = \frac{6,71,110}{11.5} = 58,357.39$$

$$G/W = 58,357.39 \times 3$$
$$= ₹1,75,072.17$$

4) Sol^n: 1. Calculation of adjusted profit:

particulars	I yr	II yr	III yr
profit	60,000	72,000	80,000
(+) All exp & losses not likely to occur in future	-	6,000	-
	60,000	78,000	80,000
(+) All profits & incomes likely to occur in future	-	-	-
	60,000	78,000	80,000
(-) Expenses & losses likely to occur in future	24,000	24,000	24,000
	36,000	54,000	56,000
(-) profits & incomes not likely to occur in future	3,000	-	-
Adjusted profit	33,000	54,000	56,000

2. Calculation of weighted

2. Calculation of weighted adjusted avg profit:

Year	profit	weight	weighted profit
I	80,000	1	80,000
II	72,000	2	1,44,000
III	80,000	3	2,40,000
		6	4,64,000

$$WAAP = \frac{4,64,000}{6} = 74,000$$

Goodwill = 74,000 × 3
= 2,22,000

Sol. (i) Calculation of adjusted profit

particulars	1998	1999	2000	2001
profit	50,000	40,000	48,000	46,000
(a) Expenses and losses not likely to occur in future	[illegible]	52,000	48,000	46,000
(b) profits & incomes likely to occur in future	-	-	-	-
	40,000	[illegible]	48,000	46,000
(c) Expenses & losses likely to occur in future	6,000	6,000	6,000	6,000
	34,000	46,000	[illegible]	[illegible]
(d) profits & incomes not likely to occur in future	-	-	-	-
Adjusted profit	38,000	44,000	42,000	40,000

Calculation of Avg Adj profit:

$A.A.P = \frac{38,000 + 44,000 + 42,000 + 39,000}{4}$

$= ₹41,000$

Calculation of Goodwill:

Goodwill = AAP × years of purchase

$= ₹41,000 \times 3$

Goodwill = ₹1,23,000

7) Sol. Calculation of adjusted profit:

particulars	1999	2000	2001
profit	35,000	42,000	52,000

(i) Expenses and losses not likely to occur in future

	1999	2000	2001
	10,000	11,000	52,000
(ii) profits and incomes likely to occur in future	-	-	-
(iii) Expenses and losses likely to occur in future	18,000	10,000	10,000
	500	500	500
	32,500	42,500	41,500
(iv) profit and incomes not likely to occur in future	2,000	-	2,000
Adjusted profit	36,500	42,500	39,500

Calculation of Avg. Adj. profit:

$A.A.P = \frac{36,500 + 42,500 + 39,500}{3}$

A.A.P. = ₹39,500

Calculation of Goodwill:

Goodwill = AAP × years of purchase

$= ₹39,500 \times 3$

Goodwill = ₹1,18,500

8) The Net profits of the Co for the past 5 yrs are:

Year	1996	1997	1998	1999	2000
profit	40,000	[illegible]	47,000	50,000	48,000

The Capital employed in business is ₹4 lakhs on which there is reasonable rate of returns of 10%. Find the value of g/w under Capitalisation of avg profits.

Sol. Calculation of Avg profits:

$\frac{\text{profits of all years}}{\text{No. of years}} = \frac{40,000 + [illegible] + 47,000 + 50,000 + 48,000}{5}$

= [illegible]

2. Total value of Business = $\frac{\text{Avg profit}}{\text{NRR}} \times 100$

= [illegible] $\times 100$

= [illegible]

3. Value of Goodwill = TVB − Capital employed

= [illegible] − [illegible]

= [illegible]

Q. A Company wants to sell its business to another Co. which has earned an average profit of ₹[illegible] p.a. and the same level of profit is likely to be earned in future also except that

- Directors fees of ₹[illegible] p.a. which is charged against such profits will not be paid by the purchasing Co.
- Rent of ₹[illegible] p.a. shall not be incurred in future as the new Co. has its own premises.
- The assets other than those [illegible] are valued at [illegible] lakhs and NRR is [illegible]. Find value of Goodwill under capitalisation of avg profits.

Sol:-

1. Calculation of adj. Avg profit:-

Avg profit	[illegible]
(+) Directors Remuneration	[illegible]
(+) Rent	[illegible]
	[illegible]

2. TVB = $\frac{\text{Adj. Avg profit}}{\text{NRR}} \times 100$

= ₹ [illegible] $\times 100$

= ₹ [illegible]

3. Value of GW = TVB − Capital employed

= [illegible] − [illegible]

= ₹ [illegible]

Q. From [illegible] details of X Co. Ltd., find value of goodwill under

- Capitalisation of Super profit method
- Cap [illegible] years of purchase of Super profit

Fixed Assets	[illegible]
Current Assets	[illegible]
Current Liabilities	1,00,000
NRR	15%

Remuneration of employed directors ₹[illegible] p.a. profits for last 4 years :- [illegible], [illegible], [illegible], 1,50,000

Sol:-

1. Calculation of adjusted profit:-

profit	[illegible]	[illegible]	[illegible]	[illegible]
(−) Rem. of directors	[illegible]	[illegible]	[illegible]	[illegible]
Adj. profit	[illegible]	[illegible]	[illegible]	[illegible]

2. Calculation of Adj. Avg. profit

ARP = $\frac{\text{Sum of Adj. profit}}{\text{No. of years}}$ = [illegible]

= ₹ [illegible]

1. Calculation of Avg Capital employed:

Fixed Assets	[illegible]
Current Assets	[illegible]
	[illegible]
Less: Current Liabilities	[illegible]
Capital employed	[illegible]
Less: ½ of yrs profit ([illegible])	[illegible]
Avg Capital employed	[illegible]

2. Calculation of Normal profit:

Normal profit = Avg Capital employed × NRR/100

= [illegible]

= [illegible]

3. Calculation of Super profit:

S.P = Avg profit − N.P

= [illegible] − [illegible]

= [illegible]

4. Valuation of Goodwill:

a) Capitalisation of Super profit

G.W = S.P/NRR × 100

= [illegible] × 100

= [illegible]

b) [illegible] yrs of purchase of Super profit

G.W = S.P × No. of yrs of purchase

= [illegible] × [illegible]

= [illegible]

15) The profits of the firm after providing [illegible] were [illegible], [illegible], [illegible], [illegible] & [illegible]. The Capital employed in the firm is [illegible]. NRR is [illegible]%. It is expected that the firm will be able to maintain its super profits for the next [illegible] yrs. Find value of the Goodwill by:

- Capitalisation of Super profits
- [illegible] yrs purchase of Super profits

Sol:

- Calculation of Avg profit

Avg profit = Sum of all profits / No. of yrs

= [illegible]

= [illegible]

- Calculation of Avg Capital employed:

Capital employed	[illegible]
Less: half of current yrs profit ([illegible] × ½)	[illegible]
Avg Capital employed	[illegible]

- Calculation of Normal profit

N.P = Avg Capital employed × NRR/100

= [illegible]

= [illegible]

- Calculation of Super profit

S.P = Avg profit − N.P

= [illegible] − [illegible]

= [illegible]

• Goodwill valuation:
• Capitalisation of Super profit

$G.W. = \frac{S.P.}{NRR} \times 100$

$= \frac{[illegible]}{[illegible]}$

$= [illegible]$

• [illegible] yrs of purchase of [illegible] profit:

G.W. = Super profit × [illegible] yrs of purchase

$= 11,[illegible] \times 3$

$= [illegible]$

14) Mr. Ram has invested a sum of ₹3 lakhs in his own business which is quite a profitable one. The annual profit earned from his business is ₹[illegible] which included a sum of ₹[illegible] being received as compensation for the [illegible] of his business premises.
The money could have been invested in the [illegible] deposits for a period of [illegible] yrs at [illegible]% interest and he himself could have earned ₹[illegible],200 p.a. by an alternative employment. Mr. Ram has [illegible] treated [illegible]% as risk involved in business. You are required to calculate value of G.W. of his business on Capitalisation of Super profit.

Ans. • Calculation of adj. Avg. profit:

Avg profit	60000
(-) Income from [illegible]	[illegible]
(-) Remuneration of Mr. Ram	[illegible]
Avg. Adj. profit	42,800

• Calculation of Avg. Capital employed

Capital employed	300000
(-) ½ yrs previous profit (42,800 × ½)	21,400
	2,78,600

• Calculation of Normal profit

N.P. = Avg Cap. employed × NRR

$= 2,78,600 \times 12\%$

$= 33,432$

• Calculation of Super profit

S.P. = Avg. profit − N.P.

$= 42,800 - 33,432$

$= 9,368$

• Goodwill valuation:
• Capitalisation of Super profit

$G.W. = \frac{S.P.}{NRR} \times 100$

$= \frac{9,368}{12} \times 100$

$= 78,066.66$

$= 78,067$

• [illegible] of purchase of Super [illegible]

Imp [illegible]
15) Following is B/S of [illegible] Excellent Traders Ltd. as on 31.3.09

Liabilities	₹	Assets	₹
Share Capital	[illegible]	FA	[illegible]
Reserves & Surplus	7,50,000	CA	[illegible]
CL's	12,50,000	Short Term Investments	[illegible]
	[illegible]		[illegible]

The above investments are 8% govt. bonds. The profit after taxation for 4 yrs were 7,35,000, 8,45,000, 8,10,000, 8,00,000.
NRR is [illegible] value of the [illegible] capitalisation [illegible] profit and 3 yrs of purchase of [illegible].

Ans:

• Calculation of Adj. profit

particulars	1	2	3	4
profit	7,35,000	[illegible]	[illegible]	[illegible]
(+) 8% interest on govt. bonds	40000	40000	40000	40000
	7,45,000	[illegible]	[illegible]	[illegible]

• Calculation of Weighted Adj. Avg profit

Year	profit	weights	weighted profit
1	7,45,000	1	7,45,000
2	8,05,000	2	16,10,000
3	8,10,000	3	24,30,000
4	8,40,000	4	33,60,000
		10	81,45,000

W.A.A.P. = $\frac{81,45,000}{10}$

= 8,14,500

• Calculation of Avg Capital employed:

F.A	10,00,000
C.A	10,00,000
	20,00,000
(-) Current Liabilities	12,50,000
	7,50,000
(-) ½ yrs [illegible] profit	[illegible]
	27,50,000

• Calculation of Normal profit:

N.P. = Avg Cap employed × NRR

= 27,50,000 × 20%

= 5,50,000

• Calculation of Super profit:

S.P. = AAP − NP

= 8,06,500 − 5,50,000

= 2,38,500

• Calculation of G/W

• Capitalisation of S.P.

G/W = $\frac{SP}{NRR} \times 100$

= $\frac{2,38,500}{20} \times 100$

G/W = 11,92,500

• Yrs of purchase of S.P.

G/W = SP × No. of yrs of purchase

= 2,38,500 × 3

G/W = 7,15,500

(2) The following B/S of Bharath Ltd as on 31.3.02

Liabilities	₹	Assets	₹
Share Capital	1,00,000	Buildings	1,00,000
P & L A/c	40,000	P & M	50,000
Secured loan	30,000	Stock	40,000
(8% debentures)		Dr's	50,000
Cr's	20,000	Cash	60,000
B/P	20,000		
	3,00,000		3,00,000

P & L A/c includes ₹80,000 being the profit for 2000-01. NRR is 10%. Find value of goodwill on basis of 3 yrs purchase of Super profit. Buildings revalued at 1,50,000 & [illegible] ₹ 50,000.

Sol:

Note: Since, there are no adjustments for the profits to be made, the profits earned for the closing year i.e. (80,000) shall be treated as avg. adj. profit.

• Calculation of Avg Cap. employed

Assets

Buildings	1,50,000
F & M	40,000
Debtors	70,000
Cash	40,000
Stock	80,000
	3,80,000

(-) Liabilities

Bank loan	70,000
Creditors	20,000
B/P	20,000
Capital employed	2,70,000
(-) ½ of yrs profit	40,000
[illegible]	1,90,000

• Calculation of Normal profit
= Avg Cap. employed × NRR
= 1,90,000 × 10%
= 19,000

• Calculation of Super profit
S.P. = A.P. - N.P.
= 80,000 - 19,000
= 61,000

- Calculation of G/W
• Capitalisation
• 3 yrs purchase of Super profit
= S.P × No. of yrs of purchase
= 61,000 × 3
= 1,83,000

Sol:

(17) From the foll. find value of goodwill under Super profit method for 3 yrs of purchase.
ACE = 1,00,000, Net profits - 1,07,000, 1,06,500, 1,06,000, Rate of Interest → 7% (NRR), remuneration to partners ₹2,000 p.a. The assets of the firm ₹ [illegible], liabilities of firm ₹ [illegible]

(18) B/S of [illegible] as on 31.3.01

Liabilities	₹	Assets	₹
5,000 [illegible] of ₹10 each	[illegible]	Goodwill	[illegible]
10,000 eq. sh. of ₹10 each	[illegible]	F.A	[illegible]
Reserves (Including prov. for taxation)	1,10,000	Investment [X & gov't loan]	[illegible]
8% Debentures	50,000	C.A	[illegible]
Creditors	15,000	Preliminary exp.	[illegible]
		Disc. on debentures	[illegible]
	[illegible]		[illegible]

The avg profit of Co is ₹31000. Revalued value of Machinery included in FA ₹75000. Normal Expected Rate of Return is 10%. Find the value of [illegible] for 5 yrs of purchase.

[illegible]

1) The foll. is [illegible] of [illegible] Ltd as on 31.12.01

Liabilities	₹	Assets	₹
Eq. Sh. of ₹10 each	5,00,000	F.A	6,00,000
Gen. Reserve	200000	Investment	1,00,000
P & L A/c	1,00,000	(Non-trade investment)	
C.L.	1,00,000	(face value [illegible])	
		C.A	[illegible]
	900000		900000

Net profit for 3 yrs → 1999 2000 2001
1,30,000 1,25,000 1,[illegible]

Find the value of G/w for 4 yrs of purchase avg profit, if the NRR is 15%. [illegible]
The assets are to be revalued at ₹4,30,000.

2) The foll. is B/S of Seal Traders owned by Mr. Ram as on 30.4.01

Liabilities	₹	Assets	₹
Creditors	76,000	F.A	6,80,000
Share Capital	3,28,000	CA	2,46,000
Reserves	80000	Investment in Shares	80,000
	4,84,000		4,84,000

The foll. Net profit were earned which included a fixed income from Investment of ₹4,000.

Year	1999	2000	2001	2002
profit	24,000	32,000	36,000	42,000

The Standard Rate of Return is 8%. Find value of G/w at 3 yrs of purchase of avg super profit. [illegible]
[illegible]

[illegible]

3) Foll. is B/S of Standard Ltd. as on 31.12.[illegible]

Liabilities	₹	Assets	₹
14000 Eq. S. of ₹100 each	1400000	F.A	1000000
4000 15% P.S. of ₹100 each	600000	Stock	350000
		Debtors	4,50,000
General Reserve	80000	Cash	2,00,000
P & L A/c	1,80000		
Creditors	1,40000		
	2000000		2000000

The profits of Co before Taxation ₹ @ 37.5% and the rate of dividend declared in respect of past financial year are as under:

Financial year	profit	Rate of dividend
2001-2	2,70,000	8%
2002-3	3,10,000	10%
[illegible]-4	3,40,000	12%
[illegible]-5	3,30,000	15%
[illegible]-6	2,60,000	15%

You are required to find out the value of G/w at [illegible] yrs of purchase at super profits of the [illegible]. Also find the value of G/w under Annuity method if the super value at 6% rate of Interest is ₹[illegible].
[illegible] annuity value

(i) Computation of adjusted profit

Avg profit	36,000
(-) Interest on investment	6000
Adjusted avg profit	30,000

Calculation of average capital employed:

A.C.E =

Assets -	
F.A	1,11,000
C.A	[illegible]
	[illegible]
(-) Liabilities	
Prov. for taxation	[illegible]
Debentures	11,000
Creditors	25,000
Capital employed	2,00,000
(-) ½ previous year's profit	15,000
Avg capital employed	1,85,000

Calculation of Normal profit:

N.P = A.C.E × N.R.R
= ₹1,85,000 × 10%
= ₹18,500

Calculation of Super profit

S.P = A.A.P − N.P
= 30,000 − 18,500
= ₹11,500

Calculation of Goodwill:

• 5 yrs of purchase of super profit

Goodwill = S.P × No. of yrs of purchase
= ₹11,500 × 5
G.W = ₹57,500

• Annuity method

G.W = S.P × Annuity Value
= 11,500 × 3.79
= ₹43,585

(ii) Calculation of adjusted profit

particulars	1999	2000	2001
profit	1,30,000	1,25,000	1,50,000
(-) Investment (1,00,000 × 6%)	6000	6,000	6,000
	1,24,000	1,19,000	1,44,000

Avg Adj profit = $\frac{1,24,000 + 1,19,000 + 1,44,000}{3}$
= 1,29,000

Calculation of Avg capital employed:

Assets	
FA	4,80,000
CA	1,00,000
	5,80,000
(-) Liabilities	
CL	1,00,000
	4,80,000
(-) ½ prev. yr's profit	72,000
A.C.E	4,08,000

Calculation of Normal profit
NP = ACE × NRR
= 6,48,000 × 12%
= ₹77,760 [illegible]

Calculation of Super profit
S.P = AAP − NP
= 1,48,000 − [illegible]
= ₹31,800

Valuation of Goodwill
i) 4 yrs of purchase of Super profit
GW = S.P × No of yrs of purchase
= 31,800 × 4
GW = ₹1,27,200

ii) Annuity Value
GW = S.P × Annuity Value
= 31,800 × 3.75
GW = 1,19,250

Q) In the above problem they have not given NRR, instead Rate of dividend declared by the Co for past 5 years is given which is required to find NRR.

Calculation of adjusted profit:

particulars	2001-2	2002-3	2003-4	2004-5	2005-6
profit	1,40,000	1,10,000	1,60,000	1,30,000	1,02,000
(-) Less [illegible]	2,01,950	1,19,300	1,80,000	1,22,150	1,36,400
	1,46,850	1,56,400	2,40,000	1,02,912	1,21,400

AAP = (1,46,850 + 1,56,400 + 2,09,000 + 2,33,000 + ...) / 3,37,500 [illegible]
₹
AAP = 1,78,230

Calculation of Average Capital Employed

particulars	₹	
Assets−		
F.A	100000	
Stock	350000	
Debtors	450000	
Cash	200000	1100000
Cr Liabilities		
Creditors	140000	
		1,A40000
(−) ½ previous year's profit		1,22,100
A.C.E		13,28,300

NRR = avg of Sum of dividend / No. of years = (8+9+8+12+13+15+14) / 5
= 12

Calculation of Normal profit
NP = ACE × NRR
= 13,28,300 × 12%
NP = 1,59,396 [illegible]

Calculation of Super profit
S.P = AAP − NP
= 1,78,230 − [illegible]
= −9,486 [illegible]

Since, the firm has super loss, value of goodwill cannot be ascertained.

Q) The profit of 5 years for taxation are as follows:

Year	profits
1	40000
2	42000
3	45000
4	46000
5	47000

The Average capital employed in business is ₹4 lakhs. NRR is 10%. Find value of goodwill under
- Capitalisation of super profit
- 3 years of purchase of super profit
- Under Annuity method if the pv of annuity at 10% is 2.[illegible]

Solⁿ:

Calculation of weighted avg. net profit:

Year	profit	weights	weighted profit
1	40000	1	40000
2	42000	2	84000
3	45000	3	135000
4	46000	4	184000
5	47000	5	235000
		15	6,78000

$W.A.N.P = \frac{678000}{15} = 45200$

Calculation of Average Capital employed:

$ACE = ₹4,00000$

Calculation of Normal profit

$NP = ACE \times NRR$

$= ₹400000 \times 10\%$

$= 40000$

Calculation of S.P

$SP = WAP - NP$

$= 45200 - 40000$

$= 5,200$

Calculation of Goodwill

- Capitalisation of Super profit

$GW = \frac{SP}{NRR} \times 100$

$= \frac{5,200}{10} \times 100$

$= 52,000$

- 3 yrs of purchase of S.P

$GW = SP \times No. \text{ of yrs of purchase}$

$= 5,200 \times 3$

$= 15,600$

- Annuity method

$GW = S.P \times \text{Annuity value}$

$= 5,200 \times 2.[illegible]$

$= ₹12,[illegible]$

23) profits of the firm are as follows- ₹14,000, ₹15,000, ₹12,000, ₹10,000 and ₹14,700. ACE is 1,50,000, NRR - 10%. find the value of goodwill under-

- 3 yrs of purchase of Super profit
- Capitalisation of Super profit.
- Annuity method, taking present value of annuity at re1 at the rate of interest is 3.78

24) The foll. info is available:-
ACE = 1,50,000, NRR = 10%, annuity value re 3.78, profits - 14,400, 15,400, 17,400, 16,900 and 13,900.
The profits include ₹2,000 as Non-recurring profit out of which only 300 appears every year.
You're required to find value of Goodwill:
- Annuity method
- 6 yrs of purchase of Super profit
- Capitalisation of Super profit

Solⁿ:-

Calculation of adjusted profit

particulars	1	2	3	4	5
profits	14,400	15,400	17,400	16,900	13,900
(-) Non-Recurring Income (2000-100)	400	400	400	400	400
Adj profit	14,000	15,000	17,000	16,500	13,500

$$A.P.P = \frac{14000 + 15,000 + 17,000 + 16,500 + 13,500}{5}$$

= 16,000

ACE = ₹1,50,000

Calculation of Normal profit
NP = ACE × NRR
= 150000 × 10%
NP = ₹15,000

Calculation of Super profit
SP = AAP - NP
= 16000 - 15000
SP = ₹1,000

Valuation of Goodwill
- 6 yrs of purchase of S.P.
G/w = S.P × No. of yrs of purchase
= 1,000 × 6
G/w = ₹6,000

- Annuity method
G/w = SP × annuity value
= 1,000 × 3.78
G/w = ₹3,780

- Capitalisation of Super profit
G/w = $\frac{S.P}{NRR}$ × 100
= $\frac{1,000}{10}$ × 100
G/w = ₹10,000

30/6/19

2 PROFIT PRIOR TO INCORPORATION

Introduction :-

A private company may commence its business soon after its incorporation but a public limited co. can commence it's business only after obtaining the certificate of commencement of business from the company registrar.

According to companies act of 1956 no co. is permitted to start its business before obtaining the certificate. If the company starts the business activity, then the profit earned will be treated as profit prior to incorporation and date of commencement of business) (the period b/w date of incorporation

Profit prior to incorporation is considered as capital profit and is transferred to capital reserve a/c. If the firm incurs loss it should be treated as capital loss and should be transferred to goodwill a/c.

profit earned by the company after its legal existence is called as post incorporation profit.

Profit prior to incorporation can be utilised in :-

- To write off fictitious assets like preliminary expenses, discount on issue of shares, debentures, under writing commission, etc
- In writing down goodwill or other fixed assets.

Steps to ascertain pre-incorporation profit or loss :-

- Preparing trading a/c for the whole period falling the date of purchase & the date of final a/c's
- Calculating time ratio, sales ratio or weighted ratio
- Prepare the statement to ascertain net profit for pre acquisition & post acquisition period separately

Procedure to find out the net profit :-

- Divide the gross profit or loss of the period into 2 parts on the basis of sales ratio. This gives the gross profit or loss separately
- Divide all fixed or standing expenses related to time such as, salaries, rent, insurance, printing & stationery, telephone charges, general expenses etc., depreciation, on the basis of time.
- Divide all variable expenses like, carriage outwards, advertisement, salesman salary, commission, brokerage, discount allowed, bad debts etc on the basis of sales
- Expenses like salary of partners, interest on vendor capital, interest on purchase consideration upto the date of incorporation should be charged wholely to pre-incorporation period
- Expenses like managing director salary, directors fees, debenture interest, discount on issue of shares or debentures, preliminary expenses written off.

Underwriting commission written off are charged to post incorporation period, because they belong exclusively to the post incorporation period.

* Audit fees may either be charged to post incorporation or divided b/w the 2 periods on the basis of time.
* Interest received may be divided b/w the 2 periods in the ratio of their sales.
* In case of bad debts recovered, if it relates to pre incorporation period, but if it relates must be credited to pre-incorporation period, but if it relates to post incorporation period it must be credited to post incorporation period.

The types of ratio:-

* Time ratio:-

Usually, fixed or standing expenses such as salary, rent, insurance, wages, etc., are divided in the ratio of period or time. Usually, the period is divided into pre incorporation period or post incorporation period.

If a business is purchased on 1/1/12 & the date of incorporation is 1/4/12 & the a/c's are closed on 31/12/12 of every year. Then the pre incorporation period is 3 months (1/1/12 - 31/3/12) and the post incorporation period is 9 months (1/4/12 - 31/12/12)

* Sales ratio or Turnover ratio:-

It is used for dividing expenses - related to sales. It is usually by taking into a/c, the sales of pre-incorporation period & the sales of post-incorporation period.

When the sales fluctuate from 1 month to another month, then the sales ratio has to be calculated by taking into a/c the expected relationship of monthly sales with the total sales in the year.

* Weighted ratio:-

This ratio is calculated by assigning weights while allocating the expenses b/w pre incorporation period and post incorporation period.

Ex:- Expenses like, wages, salary do not remain constant throughout the year due to change in no of employees has to be allocated into the a/c in time ratio, if the pre-incorporation period in a month, the time ratio will be 3:4 i.e., 1:3 which is used to allocate the wages in the ratio.

Basis of apportionment of expenses and income:-

Transaction Name	Basis of apportionment
* Gross profit / Gross loss	Sales ratio / In absence of sales ratio, time ratio
* All fixed & standing charges (example:- rent, salaries, depreciation, telephone, postage, printing & stationery, Insurance, trade expenses, office expenses, interest, bank charges, repairs,	Based on time ratio.

administrative expenses, rent received, interest received

* All variable expenses or charges directly varying with the turnover (Ex:- Salesmen commission, discount allowed, salesmen salary, carriage outwards, bad debts, packing charges, brokerage, all other expenses related to sales, advertising) — Sales Ratio

* Expenses belonging to pre-incorporation period only (Ex:- partner's salary, loss or gain on sale of investment which is sold prior to incorporation, interest on vendor's capital) etc. — Actual basis i.e. completely to pre-incorporation period

* Expenses belonging to post-incorporation period only (Ex:- Director's fees, audit fees, preliminary expenses, debenture interest, discount on issue of shares and debentures, underwriting commission, Managing Director's salary) — Actual basis i.e. completely to post incorporation.

* Interest to vendors on ~~post~~ ~~incorp~~ purchase consideration — Revised time ratio

* Discount received from creditors, commission on purchases and other expenses related to purchases — Net purchase ratio

1) A P Co. Ltd incorporated on 30 Sept 2015, took over NA of Mohan on 1.4.15. The accounting year was closed on 31.3.16 and have the foll. info.

Particulars	₹	₹
Sales:-		
April to Sept	[illegible]	
Oct to March	[illegible]	[illegible]
(-) purchases		
April to Sept	75,000	
Oct to March	[illegible]	1,85,000
Gross profit		[illegible]
(-) Indirect expenses		
Salaries	15,000	
Depreciation	1,500	
Selling Commission	2000	
Director's Remuneration	910	
Debenture interest	90	
Rent + Rates	4,500	23,840
Net profit		80,160

You are required to prepare a statement showing profits prior to and post incorporation profits:

Sol:-

Given dates:-
date of purchase [illegible]
date of Incorporation [illegible]
date of closure of [illegible] :- 31.3.2016

Calculation of Ratios:-

- Time ratio :-
pre incorporation period (1.4.2015 - 30.9.15) :- 6 months
post incorporation period (1.10.15 - 31.3.16) :- 6 months

∴ Time ratio = 6 : 6 = 1 : 1

- Sales Ratio :-
pre incorporation Sales = 1,20,000
post incorporation Sales = 1,80,000
∴ Ratio = 1,20000 : 1,80000 = 2 : 3

- Income Statement for yr ending 31.3.16 :

particulars	Ratio	pre - Incorp.	post - Incorp.
Gross profit (1,05000 × 2/5 , 3/5)	2:3	42,000	63,000
(-) Indirect exp.			
• Salaries (15000 × 1/2 : 1/2)	1:1	7,500	7,500
• Depreciation (1500 × 1/2)	1:1	750	750
• Selling Commission (3000 × 2/5 : 3/5)	2:3	1,200	1,800
• Rent & Rates (4500 × 1/2)	1:1	2,250	2,250
• Remuneration	post	-	250
• Debenture Interest	post	-	90
Capital Reserve (B/F) →		22,500	49,260
profit & loss App. a/c (B/F) →			[illegible]

Q) Gajendra Ltd. was incorporated on 1.7.15 to takeover b/s of GK enterprises from 1.4.15. They has provided with P & L A/c as on 31.3.16

To O/S	60000	By Sales	1,50,000
To purchases	87,500	(upto 30.6.15)	
Admn exp	9,000	(30000)	
Directors fees	1,500	By C/S	35,000
Selling exp	18,000		
prel. exp	1,500		
Audit fees	500		

prepare statement showing profit earned prior and after incorporation

Solⁿ :-

Date of purchase = 1.4.15 } 3 months
Date of Incorporation = 1.7.15 } 9 months
Date of closure = 31.3.16

Note :- In this problem gross profit is missing. Hence, we need to calculate gross profit.

Calculation of Cost of Goods Sold

Opening Stock	60,000
(+) purchases	87,500
	1,47,500
(-) Closing Stock	35,000
Cost of Goods Sold	1,12,500

Calculation of Gross profit:
Gross profit = Sales - Cost of goods sold
= 1,50,000 - 1,12,500
= 37,500

Calculation of Ratios :

• Time Ratio:
pre-incorporation period = 1.4.15 – 30.6.15
= 3 months
post incorporation period (1.7.15 – 31.3.16)
= 9 months

Time Ratio: 3:9 = 1:3

• Sales Ratio
Sales upto 30.6.15 = 50,000
Sales from 1.7.15 to 31.3.16 = 1,50,000
∴ Sales Ratio = 50,000 : 1,50,000
= 1:3

Income Statement of Gajendra [illegible] for the year ending 31.3.16

particulars	Ratio	pre-Inc.	post-Inc.
Gross Profit (Ratio) (37,500 × ¼)	1:3	9,375	28,125
A		9,375	28,125
expenses:			
Administration exp (9,000 × ¼) (9,000 × ¾)	1:3	2,250	6,750
Directors fees	(post)	–	1,500
Selling expenses (Ratio) (S.R. 1:3)	1:3	4,500	13,500
Preliminary exp	post	–	1,500
Audit fees	post	–	500
B		6,750	23,750
(A−B) (Capital Reserve) ⟶		2,625	–
(A−B) (profit & Loss A/c) ⟶		–	4,375

Q. Calculate sales Ratio from following info. X Co. was incorporated on 1 May 2012 and acquired the b/s with effect from 1/1/12. The sales from 1/1/12 to 31/12/12 was [illegible] lakhs.
Sales from Jan, Feb were 1½ times avg. monthly sales.
Sales from March–July is ½ of avg. monthly sales.
Sales from Aug & Sept is ¼th of avg. monthly sales.
Sales from Oct – Dec. is double the avg. monthly sales [6,00,000/12]

Solⁿ:
Date of purchase 1/1/12 } 4 months
Date of Incorporation 1/5/12 } 8 months
Date of Closure 31/12/12

1.1.12 – 30.4.12 Pre-Incorporation		1.5.12 – 31.12.12 post-Incorporation	
Jan 50,000 × 1½	75,000	May 50,000 × ½	25,000
Feb 50,000 × 1½	75,000	Jun 50,000 × ½	25,000
Mar 50,000 × ½	25,000	Jul 50,000 × ½	25,000
Apr 50,000 × ½	25,000	Aug 50,000 × ¼	12,500
		Sept 50,000 × ¼	12,500
		Oct 50,000 × 2	1,00,000
		Nov 50,000 × 2	1,00,000
		Dec 50,000 × 2	1,00,000
	2,00,000		4,00,000

∴ Ratio = 2,00,000 : 4,00,000 = 2:4
= 1:2

4) X Co. was incorporated on 1/4/[illegible] & acquired the business [illegible] [illegible] from 1/1/[illegible]. The sales for the year [illegible] 1,20,000.
Sales for Jan & Feb 1¼th times avg. sales
Sales for Mar – July 2/3rd of avg. sales
Sales for Aug. & Sept [illegible] of avg. monthly sales
Sales for Oct & Nov [illegible] of avg. sales
and remaining balance [illegible] for the month of December. You are required to calculate the sales ratio.

Solⁿ:

Date of purchase = 1/1/[illegible]
Date of Incorporation = 1/4/[illegible]
Date of Closure = 31/12/[illegible]

[1,20,000/12]

1/1/[illegible] – 31/3/[illegible] pre Incorporation		1/4/[illegible] – 31/12/[illegible] post Incorporation	
Jan	10000 × 1¼ = 12,500	Apr.	10000 × 2/3 = 6,667
Feb	10,000 × 1¼ = 12,500	May	10000 × 2/3 = 6,667
Mar	10000 × 2/3 = 6,667	Jun	10000 × 2/3 = 6,667
		July	10000 × 2/3 = 6,667
		Aug	10,000 × [illegible] = [illegible]
		Sept	10,000 × [illegible] = [illegible]
		Oct	10,000 × 2 = 20,000
		Nov	10000 × 2 = 20,000
		Dec.	~~[illegible]~~
			[1,20,000 – [illegible]] = [illegible]
31,667			[illegible]

∴ Sales Ratio = 31,667 : 1,20,000

December Sales = Total Sales – Sales upto Nov.
= [illegible] + ([illegible] + [illegible]) – [illegible]
= [illegible]

December Sales = Total Sales – Sales upto Nov.
= 1,20,000 – (31,667 + [illegible])
= 1,20,000 – 1,03,335
= 16,665

Sales Ratio = 31,667 : ~~[illegible]~~ [illegible]
= 32 : 88 = 4 : 11

5) X Co. had purchased a B/s on 1/1/[illegible] & the CoI was on 1/4/[illegible]. The avg. monthly sales for the period before incorporation was 25% more than the avg. monthly sales for the period after incorporation. The total sales during the yr was 13,[illegible]. Find out pre & post incorporation sales.

In the same organisation there were 25 employees before incorporation & they were paid 1,[illegible] p.m. each. After incorporation there were 50 employees & were paid 1,[illegible] p.m. for each employee. Find pre & post incorporation salary of employees ascertain [illegible] sales ratio.

Solⁿ:

Ascertainment of Sales Ratio:
Let the sales for incorporation be 100 p.m. [illegible], the pre incorp. sales are 25% more than the post incorp. sales.
∴ pre incorp. sales = 100 + 25 = 125
pre-Inc. sales for 3 months = 3 × 125 = 375
post-Inc. Sales for 7 months = 100 × 7 = 700

∴ pre-Inc : post-Inc
= 625 : 700
= 25 : 28

∴ Sales for pre-Inc period
= 13,25,000 × 25/53
= 6,25,000

∴ Sales for post-Inc period
= 13,25,000 × 28/53
= 7,00,000

Apportionment of pre + post Inc Salary:
pre-Incorp Salary = Salary × pre-Inc month × No. of employees
= 25 × 5 × 1,200
= 1,50,000

post Incorp Salary =
= 60 × 7 × 1,850
= 7,77,000

Q) From foll. details calculate pre + post Incorporation expenses
• A Co. purchased a b/s on 1.1.12 and received its certificate on 1.6.12. The avg. monthly sales for period before Incorp^n was 25% more than avg monthly sales for the period after Incorp^n.
• There were 25 employees before incorp^n and wages of ₹100 p.m. for each employee. Later there were 50 employees at 225 p.m. per employee.
• There were 12 clerks before Incorporation at ₹2,500 p.m. per clerk. After Incorporation there were 22 clerks at 1,250 p.m. per clerk.

Sol^n:

Apportionment of Sales Ratio
Let the sales for Incorporation be ₹100 p.m.
Since, pre-Incorp sales are 25% more than the post-Incorp. Sales
∴ pre-Incorp Sales = 100 + 25 = 125

pre Incorporation ~~sal~~ Sales for 5 months = 125 × 5 = 625
post Incorp. Sales for 7 months =
= 100 × 7 = 700

∴ pre-Incorp : post-Incorp
= 625 : 700
= 25 : 28
∴ Sales

Apportionment of pre + post Incorp^n wages:
pre-Incorp. wages = No. of employees × Salary × pre-Inc months
= 25 × 100 × 5
= ~~30,000~~ 12,500
post-Incorp. wages = 50 × 225 × 7
= 78,750

Apportionment of pre + post Inc. Salary
pre-Inc. = [illegible] × 2,500 × 5
= 1,50,000
post-Inc. = 22 × 1,250 × 7
= 5,00,000

∴ pre Inc : post Inc
= 625 : 700
= 25 : 28

∴ Sale for pre Inc period
= 13,25,000 × 25/53
= 6,25,000

∴ Sale for post Inc period
= 13,25,000 × 28/53
= 7,00,000

Ascertainment of pre + post Inc Salary:
pre-Incorp Salary = Salary × pre Inc month × No. of employees
= 25 × 5 × 1,200
= 1,50,000

post Incorp Salary =
= 50 × 7 × 1,250
= 7,77,000

Q) From foll. details calculate pre + post Incorporation expenses
* A Co. purchased a b/s on 1.1.12, it received its certification on 1.6.12. The avg. monthly sale for period before Incorpⁿ was 25% more than avg monthly sale for the period after Incorpⁿ.
* There were 25 employees before Incorpⁿ and wages of ₹100 p.m. for each employee. Later there were 50 employees at 225 p.m. per employee.
* There were 12 clerks before Incorporation at ₹2,500 p.m. per clerk. After Incorporation there were 22 clerks at 2,250 p.m. per clerk.

Solⁿ:

Ascertainment of Sale Ratio
Let the sale for Incorporation be 100 p.m. Since, pre-Incorp. Sales are 25% more than the post-Incorp. Sales
∴ pre Incorp. Sales = 100 + 25 = 125

pre Incorporation ~~Inf~~ Sales for 5 months =
= 125 × 5 = 625

post Incorp. Sales for 7 months =
= 100 × 7 = 700

∴ pre-Incorp : post-Incorp
= 625 : 700
= 25 : 28
= Sales

Ascertainment of pre + post Incorpⁿ wages.
pre-Incorp. Wages = No. of employees × Salary × pre-Inc months
= 25 × 150 × 5
= ~~30,000~~ 18,750
post-Incorp. Wages = 50 × 225 × 7
= 78,750

Ascertainment of pre + post Inc. Salary
pre-Inc. = 12 × 2,500 × 5
= 1,50,000
post-Inc. = 22 × 2,250 × 7
= 3,46,500

Sales for the yr is 5 lakhs, sales upto 1.5.11 is [illegible], prepare a statement to show pre & post Incorp^n profit.

Sol^n:

Date of purchase [illegible] } 4 months (pre-Incorp^n)
Incorp^n 1.5.11 } 8 months (post-Incorp^n)
Close of a/c 31.12.[illegible]

Ratio = 4:8 = 1:2

Sales:-

pre Incorporation	1,50,000
post Incorporation	3,50,000
Total Sales	5,00,000

Ratio = 1,50,000 : 3,50,000
= 3 : 7

Statement showing pre & post Incorp^n profits:-

Gross profit particulars	Ratio	pre	post
Gross profit (1,15,000 × 3/10 : 7/10)	3:7	45,500	1,08,500
(-) Expenses:-			
Rent	1:2	4,000	8,000
Ins.	1:2	1,000	2,000
Salary	1:2	12,000	24,000
Electricity	1:2	800	1,600
MD fees	post	-	3,000
Audit fees	post	-	1,600
Commission	3:7	1,800	4,200
Advertise^mt	3:7	1,200	7,000
Discount	3:7	1,050	2,450
Office expenses	1:2	2,500	5,000
Bank charges	1:2	500	1,000
~~Discount~~	~~3:7~~		
Carriage	3:7	1,800	4,100
post expenses	post	-	6,500
Bad debts	1:7	600	4,200
Int on Bank loan	1:2	1,000	2,000
		27,350	57,650
Capital Reserve		17,150	-
P & L A/c (B-D)			50,850

2) X Ltd was incorporated on 1.7.10 & got its COB of business on 1.4.10. The Co purchased business with effect from 1.11.10. From following figures you're required to find profit which is available for dividend for closing yr ending 31.10.11.

Sales for the yr was 5 lakhs of which sales upto 1.3 was 2,50,000 and for remaining was 2,50,000, G/P for the yr was 1,80,000. The expenses are given below.

Rent - 9,000
Salaries - 12,000
Directors fees - 5000
Int on debentures - 5,000
Audit fees - [illegible]
Disc on Sales - 2,600
dep^n - 3,500
printing & Stationery - 3,600
Commission on sales - 4,000
Bad debts - 1,500 [500 is debts for the period for pre-Inc^n period.]

Int. to vendors on purchase consideration upto 1.1.10 - ₹2,000, dep^n - 11,000, other expenses 4,400

Sol^n:

Date of purchase 1.1.10 } 4 months (pre-inc)
Date of Incorporation 1.5.10 } 8 months (post)
Date of Closure of a/c - 31.12.10

Time Ratio : 4 : 8 = 1 : 2

Sales Ratio -
pre Incorp^n Sales 2,50,000
post Incorp^n Sales 3,50,000

Sales Ratio : 2,50,000 : 3,50,000 = 5 : 7

Interest to Vendors on Purchase Consideration
Date of purchase - 1.1.10 } 4 months
Date of Incorp^n :- 1.5.10 } 2 months
Date of Interest payment :- 1.7.10
∴ Ratio = 4 : 2 = 2 : 1

3,000 × 2/3 = 2,000 3,000 × 1/3 = 1,000
[Pre - Inc^n] post - Incorp^n

Statement showing Pre & post Incorp^n profits:

Particulars	Ratio	pre	post
Gross profit	Sales 5:7	75,000	1,05,000
Less expenses			
Rent	1:2	3,000	6,000
Salaries	1:2	5,000	10,000
Director's fees	post		4,000
Interest on debentures	post		5,000
Audit fees	post	-	1,000
Discount on Sales	5:7	1,500	2,100
Depreciation	1:2	2,000	4,000
printing & stationery	1:2	1,200	2,400
Commission	5:7	2,500	3,500
Bad debts	Actuals	500	1,000
Interest to Vendors	Actuals	2,000	1,000
Advertisement	1:2	3,500	10,500
Other expenses	1:2	1,400	2,800
B →		32,800	66,330
Capital Reserve (A - B)		42,200	[illegible]
P & L A/c (A - B)		-	38,700
			Dividend

(d) XBC Co Ltd was registered on 1.1.6 was purchased on 1.10.05 and obtaining the Certification 1.2.6. For the yr ended Sept 30^th 2006. are as follows:
- Sales for whole yr → 2,40,000 of which 90,000 is for pre-Incorporation.
- Gross profit is ₹96,000 and other exp are as follows.

Bad debts	2,000
[₹700 for pre-Incorporation]	
M.D fee	1,500
Rent	4,800
Salary	12,000
Debenture Interest	4,000
Dep^n	3,600
Prel. exp	2,400
Commission on Sales	3,600
Travellers expenses	2400

Interest to vendors @ 6% on ₹1 lakh from 1/10/05 - 1/1/06 is ₹4,000

Prepare a statement showing profit for pre and post incorporation.

Sol:

Calculation of ratio:

Time Ratio:

Date of purchase : 1.1.05] 3 months
Date of incorp^n : 1.4.[illegible]] 9 months
Date of closing of A/c : [illegible]

Pre incorp^n period = 3 months
Post incorp^n period = 9 months
= 3 : 9 = 1:3

Sales Ratio:

Pre Incorporation Sales = 40,000
Post Incorporation Sales = (2,40,000 − 40,000) = 2,00,000

Ratio = 40,000 : 2,00,000
= 1 : 5

Interest to Vendors

Date of purchase : 1.1.05] 3 months
Date of Incorp^n : 1.4.[illegible]] 5 months
Date of payment : 31.8.[illegible]] of interest

∴ Ratio = 3:5

Pre-incorporation Interest amount = 4,000 × 3/8 = 1,500

Post-incorporation Interest amount = 4,000 × 5/8 = 2,500

Statement showing pre & post Incorporation profits:

Particulars	Ratio	Pre	Post
Gross profit	Sales 1:5	16,000	80,000
A →		16,000	80,000
(-) Indirect expenses			
Bad debts	actuals	700	1,300
M.D fees	post	–	1,500
Rent	1:3	1,200	3,600
Salary	1:3	3,000	9,000
Debenture interest	post	–	6,000
Depreciation	1:3	900	2,700
preliminary exp.	post	–	2,400
Commission on Sales	1:5	600	3,000
Promotional exp.	1:5	1,400	7,000
Interest to vendors	Actuals	1,500	2,500
B →		9,300	39,000
Capital Reserve (A-B) →		6,700	–
Profit & Loss A/c (A-B) →			41,000

11) [illegible] Ltd was incorporated on 31.8.1999 to take over business of XYZ Co. Ltd with effect from 1.4.1999. From the data given below as on 31.3.2000. You're required to calculate pre & post Incorporation profit.

Sales for the [illegible] were ₹ 60 lakhs, out of which Sales upto pre Incorporation was 25 lakhs. Gross profit for the year was 18 lakhs.

The other expenses are as follows:

Rent 20,000, Salaries 1,50,000, Directors fees 30,000, Interest on debentures 60,000, Audit fees 15,000, Discount on Sales 36,000.
(contd.)

(Remarks)

Depreciation 2,40,000, General exp 62,000, Adv. Salaries 1,40,000, Stationery & printing 36,000, Commission on sales 40,000, Interest to vendors on purchase consideration upto 1.10.99 20,000, Bad debts 15,000 [illegible] for pre-Incorp.]

Sol^n

Date of purchase : 1.4.1999] 5 months
Date of Incorp^n : 31.8.1999] 7 months
Date of close of B/s : 31.3.2000
Time ratio = 5 : 7

Sales ratio : pre-Incorp^n : post-Incorp^n
= 15,00,000 : (35,00,000 - 15,00,000)

Sales ratio = 5 : 7

Interest to Vendors
Date of purchase : 1.4.99] 5 months
Date of Incorp^n : 31.8.99]
Date of payment of interest : 1.10.99] 1 months

ratio = 5 : 1

Pre-Incorporation Interest Amt :
= 30,000 × 5/6 = 25,000
Post-incorporation Interest Amt :
= 30,000 × 1/6 = 5,000

Statement showing pre & post Incorporation profits :

Particulars		Ratio	Pre	Post
Gross profit		5 : 7	7,50,000	10,50,000
G.I. Expenses	A →		1,50,000	[illegible]

Rent	5 : 7	37,500	52,500
Salaries	5 : 7	62,500	87,500
Directors fees	post	–	38,000
Interest on Debentures	post		40,000
Audit fees	post		15,000
Discount on Sales	5 : 7	15,000	21,000
Depreciation	5 : 7	1,00,000	1,40,000
Gen. expenses	1 : 7	20,000	14,000
Advertising	5 : 7	75,000	1,05,000
Stationery & printing	5 : 7	15,000	21,000
Commission on Sales	5 : 7	25,000	35,000
Interest to vendors		25,000	5,000
Bad debts	actuals	5,000	10,000
B →		3,80,000	6,18,000
Capital Reserve (A-B)		3,70,000	–
profit & Loss A/c (A-B)		–	4,32,000

(2) [illegible] Mills Ltd. was incorporated on 31.7.1997 to purchase business of Hemanth Co. Ltd. on 1.4.1997 the basis of B/S disclosed the foll. on 31.3.1998
Sales for the yr was ₹22,10,400 (from 1.4.1997 to 31.7.1997) is ₹8,27,400 and from 1.8.1997 to 31.3.1998 ₹13,83,000.
Gross profit for the yr is ₹4,12,800.
Managing Director Salary 12,000
(iv) Preliminary expenses written off 18,000
(v) Company Secretary Salary 52,000
(vi) Bad debts written off 14,880 [5,010 was for pre-Incorporation]

Depreciation on plant & Machinery 25,300, [illegible] exp 31,000 [illegible] 4,500. Interest on Debentures [illegible]. You're required to prepare a statement [illegible] profits available for Distribution

Sol[n]:-

Date of Purchase : 1.9.[illegible]] 4 months
Date of Incorp[n] : 31.7.[illegible]] [illegible] months
Date of Closure : 31.3.197[illegible]
Time ratio = 4:8 = 1:2

Sales ratio = pre Incorp[n] : post Incorp[n]
= 8,07,400 : 24,07,[illegible]
Sales ratio = 1 : 3

Statement showing pre & post Incorp[n] profits

particulars	Ratio	pre	post
Gross profit	Sales (1:3)	1,03,200	1,04,[illegible]
(-) Expenses			
MD Salary	post	-	12,000
post exp	post	-	18,000
Co. Secretary Salary	post	-	8,000
Bad debts	actuals	2,020	10,830
Depreciation	1:2	2,400	14,800
Gen. exp	1:2	17,000	34,000
Advertising	1:3	4,850	5,550
Interest on Debentures	post	-	10,000
A →		11,170	1,73,220

Capital Reserve (A-B) → 71,930 & -
Profit & Loss A/c (A-B) → - 1,34,380

13) C Co. Has Incorporated on 1.5.5 to take over a/c from 1.1.5 from foll. balances as on 31.12.05

Profit & Loss A/c as on 31.12.5

Dr particulars	₹	particulars	₹ Cr
To Opening Stock	30,000	By Sales	2,40,000
To Purchases	1,80,000	By Closing Stock	54,000
To Gross profit	84,000		
	2,94,000		2,94,000
To Salaries (T.R)	12,000	By G.P	84,000
To Rent & rates (T.R)	4,800		
To Director's fees (post)	3,000		
To Travellers' exp (Sales)	2,400		
To Office exp. (T.R)	12,000		
To Bad debts (actual)	500		
To Discount (Sales)	3,600		
To Audit fees (post)	600		
To Depreciation (T.R)	1,800		
To Debenture int. (post)	1,000		
To Int. [illegible] (actual)	-		
To Commission	6,500		
To Carriage o/w (Sales)	1,200		
To General expenses	2,100		
To Advertisement	1,800		
To Stationery (T.R)	[illegible]		
To Formation exp (post)	[illegible]		
	[illegible]		84,000

The foll are other details:
• It is ascertained that sales for Jan. were 3/4[th] times the avg. sales of the year, April, Aug & Dec. were [illegible] of the avg. sales and those of March is twice the avg. sales

* Out of bad debts 200 relates to pre-Incorporation. Ascertain profits available for distribution.

Sol[n]

Ascertainment of time ratio:

Date of purchase : 1.1.5] 4 months
Date of Incorp[n] : 1.5.5] 8 months
Date of close of A/c : 31.12.5 [illegible]
Time ratio = 4:8 = [illegible]

Ascertainment of Sales Ratio:

Avg Sales = $\frac{2,40,000}{12}$ = 20,000

Jan Sales = 20,000 x 1 ½ = 30,000
April Sales = 20,000 x ½ = 10,000
Aug Sales = 20,000 x ½ = 10,000
Dec Sales = 20,000 x ½ = 10,000
March Sales = 20,000 x 2 = 40,000
Total Sales for 5 months 1,00,000

Sales for Remaining 7 months:
(2,40,000 − 1,00,000 = 1,40,000)
∴ Sales for remaining 7 months
= $\frac{1,40,000}{7}$ = 20,000

Pre & post Incorporation Sales:

Jan – 30,000	May – 20,000	[Post]
Feb – 20,000	June – 10,000	Nov –
March – 40,000	July – 20,000	10,000
April – 10,000	Aug – 10,000	Dec –
	Sept – 20,000	10,000
	Oct – 20,000	

[Pre]

Sales	1,00,000	1,40,000

Ratio = 1,00,000 : 1,40,000 = 5:7

Ascertainment of Interest to vendors

Date of purchase : 1.1.5] 4 months
" " Incorp[n] : 1.5.5]
" " payment of Interest : 1.10.5] 5 months

∴ ratio = 4:5

pre Incorporation Int. due = 4,500 x $\frac{4}{9}$ = 2,000

post Incorp[n] Int. due = 4,500 x $\frac{5}{9}$ = 2,500

Statement showing pre & post Incorp[n] profits

particulars	ratio	pre	post
Gross profit	5:7	35,000	49,000
A →		35,000	49,000
Expenses			
Salaries	1:2	4,000	8,000
Rent & Rates	1:2	1,600	2,400
Director's fees	post		1,000
Travelling [illegible]	5:7	1,000	1,400
Office exp	1:2	4,000	8,000
Bad debts	actual	200	300
Discount	5:7	1,500	2,100
Audit fees	post		800
Depreciation	1:2	600	1,200
Int. on purchase consideration	actual	2,000	2,500

Debenture interest	part	-	4,000
	5:1	400	700
Carriage outwards	1:2	300	1,400
Gen. expenses	1:2	750	1,850
Advertisement	1:1	1,000	2,000
Stationery		-	5,000
Formation exp.	part		
E →		12,850	41,450
Capital Reserve (B.S)		13,150	-
Profit & Loss A/c (B.S)			7,350

[illegible]

1. UNDERWRITING OF SHARES

Calculation of Underwriter's Liability :- It refers to no. of shares the underwriters must subscribe as per of underwriting agreement.

proforma to show underwriters liability

particulars	No. of Shares
Gross liability	xxx
(-) unmarked applications	xxx
	xxx
(-) Marked applications	xxx
	xxx
(+) Firm underwriting	xxx
Total liability of underwriters	xxx

Important points to solve the problems :-

- when the shares of the Co are fully or oversubscribed by the public, then the underwriters have no liability, also their individual marked applications are less than gross liability.
- when the no. of underwriters are more than 1, the unmarked applications can be appo. any of the 2 bases given below:-
  a) Gross liability basis :-
  In this basis, the unmarked appl^n are divided in the ratio of their original underwriting proportion.
  b) Remaining liability basis :-
  In the ratio of remaining liabilities basis, we have to ascertain the liability of underwriters after subtracting marked appl^n from gross liability.

* Surplus if any of any underwriter should be adjusted against other underwriters liability in the gross liability basis
* When there is no clear cut information about treatment of firm underwriting, they must be treated on par with "marked appl"
* When firm underwriting is not excluded in the total subscription [i.e. the subscription is excluding firm underwriting] then it must be considered as "on par with unmarked appl".
* When the problem states that some relief has to be provided for ..., they must be treated as marked appl".
* When there is firm underwriting by the underwriters, the calculation of liability of underwriters depends upon
a) On par with unmarked appl" [includes in total subscription.]

Format to calculate total liability of underwriters

Firm UW on par with unmarked Appl":

Particulars	A	B	C	Total
Gross liability	XXX	XXX	XXX	XXX
(-) Unmarked appl"	XXX	XXX	XXX	XXX
	XXX	XXX	XXX	XXX
(-) Marked appl"	XXX	XXX	XXX	XXX
	XXX	XXX	XXX	XXX
(-) Firm underwriting	XXX	XXX	XXX	XXX
Total liability of underwriters	XXX	XXX	XXX	XXX

Note:-
* When total subscription is excluding firm underwriting, the other above format is to be followed.

b) When firm underwriting is treated on par with Marked appl"

Particulars	A	B	C	Total
Gross liability	XXX	XXX	XXX	XXX
(-) Unmarked appl" [total appl" received - (marked appl" + firm underwriting)]	XXX	XXX	XXX	XXX
(-) Marked appl" [Marked appl" + firm underwriting]	XXX	XXX	XXX	XXX
(+) Firm underwriting	XXX	XXX	XXX	XXX
Total liability of underwriters	XXX	XXX	XXX	XXX

Q) C Ltd. incorporated on 1.4.15 issued a prospectus inviting appl" for 5 lakh equity shares of ₹10 each. The whole issue was underwritten by A, B, C and D as follows:
A - 2,00,000, B - 1,50,000, C - 1,00,000, D - 50,000 shares
The Co. had received appl" for 4,50,000 shares of which marked appl" were as follows:
A - 1,20,000, B - 1,10,000, C - 90,000, D - 10,000 shares
You're required to find liability of underwriters.

Meaning of Underwriting :

Underwriting is an agreement entered into by a Company with one or more persons called underwriter or underwriters, who undertake to take up the whole or a certain portion of the unsubscribed shares or debentures of a Company for a certain remuneration called underwriting commission.

Meaning of Underwriters :

Underwriters are those who underwrite the shares or debentures issued by public Co's. They may be individuals or institutions like banks, specialised financial institutions and joint stock Companies.

Underwriting Commission :

The underwriters are entitled to receive consideration for the risk they undertake in underwriting the shares or debentures of a public Co. The consideration payable to the underwriter by a public Co. for underwriting the shares or debentures is called underwriting commission for the services rendered by the underwriters. They are entitled to a max. commission of 5% of the issue price of the shares & 2½ % of the issue price of the debentures as per Companies Act.

Advantages of Underwriting :

- The underwriters guarantee the sale of shares & debentures, [illegible] of capital of Company [illegible].
- When there is an underwriting arrangement a Company is relieved from the trouble of raising the required capital.
- When there is an underwriting arrangement a Company need not bother about [illegible] market conditions.
- When there is an underwriting arrangement a Company can be sure of getting the required capital within a specified period of time.
- When there is an underwriting arrangement, the underwriting provide expert advice to the Company as regards the issue of shares and debentures.

Types of Underwriting

- One Underwriter
  - Complete Underwriting
  - Partial Underwriting
- More than 1 Underwriter
  - Complete Underwriting
    - Without firm Underwriting
    - With firm Underwriting
  - Partial Underwriting

Underwriting contracts can be broadly classified into 2 types namely:

- On the basis of [illegible] of shares or debentures.
- On the basis of [illegible] of underwriters.

- On the basis of [illegible] shares and debentures underwritten.

Underwriting can be classified into 2 types. They are:

a) Complete underwriting :-
It is one under which a whole of the issue of shares and debentures of a Company is underwritten by one or more underwriters.

b) Partial underwriting :-
It is one under which a part of the issue of shares or debentures of a Company is underwritten by one or more underwriters.

* On the basis of liability of the underwriters :
Underwriting contracts may be classified into 2 types, they are :
a) Pure or open underwriting :
It is an arrangement under which the underwriter or underwriters agree to take up the shares or debentures underwritten by him or them is not fully subscribed by public.
b) Firm underwriting :
It is an arrangement under which an underwriter or underwriting made definite commitment to take up certain shares or debentures of a Company, irrespective of the no. of shares or debentures subscribed by public.

Features of firm underwriting :
* When the issue of shares or debentures are fully subscribed or over subscribed, the underwriters are required to take up the shares or debentures which they agreed to take up under the firm underwriting agreement.
* The underwriter or underwriters get priority over the general public in the allotment of appl. shares, if there is over subscription.

Marked and Unmarked Applications :-
When the issue of shares or debentures of a Company is underwritten by 2 or more underwriters, to determine the liability of each underwriter, it becomes necessary that the application for the shares or debentures should bear the official stamp of each underwriter.
The applications received by the Co. bearing the official stamp of individual underwriter or the respective underwriters are called marked application.
The applications received by the Company directly from the public which do not bear the official stamp of the underwriter for underwriters are called unmarked applⁿ.

Solⁿ: Calculation of unmarked applⁿ :

~~particulars~~	Total applⁿ received	4,70,000
	Marked applⁿ	3,60,000
	Unmarked applⁿ	10000

Statement showing liabilities of underwriters

particulars	A	B	C	D	Total
Gross Liability	2,[illegible]	1,50,000	1,00,000	50,000	5,00,000
(-) Unmarked	8,000	6,000	4,000	2,000	20,000
	2,[illegible]	1,44,000	[illegible]	[illegible]	[illegible]
(-) Marked	2,00,000	1,20,000	[illegible]	[illegible]	[illegible]
	- 18,000	24,000	[illegible]	[illegible]	[illegible]

-30000 38,000 [illegible] 36,000 [illegible]

(-) Surplus of A distributed to B, C, D in [illegible] liability ratio (Expense [illegible]) [illegible] 15,000 2333 [illegible]

Additional [illegible] [illegible] 10000 13333 [illegible]

Net liability of U/W [illegible]

Ans:
3) ABC Ltd issued eq. shares of ₹10 [illegible] ₹[illegible] each. The whole issue was underwritten [illegible] the foll. underwriters

		Marked App^n	
A	35,000		
B	25,000	A:	B = 22,500
C	20,000	C = 20,000	D = 7,500
D	10,000	E = 5,000	F = Nil
E	5,000		
F	2,000	20,000 shares unmarked appl^n	

You're required to find Net liability of underwriters.

Ans: A: 8842, B: -, C: -, D: -, E: -, F: 1311

4) XYZ Co. issued 18,000 eq. sh of ₹100 each. The issue was underwritten by A, B & C equally. The Co. received 16,000 appl^n out of which marked appl^n were A: 6000, B: 4,000 and C: 3000. Find liability of underwriters A, B, C and also Com^n [illegible] at 5%

Ans:

Calculation of unmarked appl^n

Total appl^n received	16,000
(-) Marked appl^n	13,000
Unmarked appl^n	3000

Statement showing liability of U/W

Particulars	A	B	C	Total
Gross	6,000	6,000	6,000	18,000
(-) Un	1,000	1,000	1,000	3,000
	5,000	5,000	5,000	15,000
(-) M	6,000	4,000	3,000	13,000
	-1,000	1,000	2,000	2,000
(-) Surplus of A distributed to B, C (1,000 × [illegible])	[illegible]	500	500	1,000
Net liability of U/W	-	500	1,500	1,000

Calcul^n of Commission:
Com^n has to be calculated on gross liability of the underwriters.

A = 6,000 × 100 × 5/100 = 30,000
B = 6,000 × 100 × 5/100 = 30,000
C = 6,000 × 100 × 5/100 = 30,000

5) Abhishek Ltd issued 80000 shares of ₹10 each at premium of [illegible]. Mr. X an underwriter agrees to underwrite [illegible] of the issue. The Co. received appl^n for 75% of issue of which 20000 appl^n bear the [illegible] stamp of Mr. X. His Com^n is fixed at 5%, find liability of Mr. X as well as his commission.

Solⁿ Note: In this problem, shares are being u/w by Mr. A [illegible] 20% of issue, the remaining [illegible] will be [illegible] by [illegible] only. [illegible] [illegible] [illegible] partial [illegible].

Statement showing liability of u/w

particulars	A	Co.	Total
Gross liability ([illegible]) ([illegible])	[illegible]	16,000	20,000
(1) Unmarked appl.ⁿ (Total applⁿ rec. − Marked applⁿ) [[illegible] × [illegible]%] − [[illegible]]		[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]
(2) Excess of Co. transfer to 'A'	6,000	Nil	[illegible]
Net liability	60,000	Nil	[illegible]
(3) Marked applⁿ	40,000	-	[illegible]
Net liability :-	20,000	-	[illegible]

Commission of Mr. A :-

= [illegible],000 × 12 × [illegible]/100

= 30,[illegible]

Que 9) [illegible] Ltd. issued 10,000 [illegible] shares of [illegible] each @ a premium of 15%. [illegible] Co. [illegible] u/w 20% of issue. The public have subscribed for [illegible] shares. Find liability of u/w.

Ans [illegible] [illegible] [illegible]

[illegible] Ltd. issued [illegible] shares of [illegible] each at a premium of [illegible] per. The whole issue was u/w by A, B & C as follows: A - [illegible] shares [illegible] shares), B - [illegible] shares [illegible], C - [illegible] shares [illegible]. The public has subscribed for [illegible] shares. The [illegible] are marked forms indicating [illegible] u/w A - 3,[illegible] shares, B - [illegible] shares, C [illegible] shares. You're required to find u/w's liability.

Solⁿ :- [illegible] u/w on marked applⁿ :-

Calculation of unmarked applⁿ

Total subscription	[illegible]
(−) Marked applⁿ	[illegible]
Unmarked applⁿ	[illegible],500

Statement showing u/w's liability

particulars	A	B	C	Total
Gross liability	[illegible]	[illegible]	[illegible]	10,000
(1) Unmarked applⁿ ([illegible])	[illegible]	[illegible]	[illegible]	[illegible],500
	[illegible]	[illegible]	[illegible]	[illegible]
(2) Marked applⁿ	[illegible]	[illegible]	1,[illegible]	6,500
	[illegible]	[illegible]	−[illegible]	1,000
(3) [illegible] ([illegible])	625	375	[illegible]	—
	1,[illegible]	[illegible]	[illegible]	[illegible]
(4) Firm underwriting	1,000	500	500	[illegible]
	[illegible]	[illegible]	500	[illegible]

Firm U/w as unmarked appl^n 9,000
Total subscription
(-) Marked appl^n
A = 2,500 [illegible] = 2,500
B [illegible] 900
C [illegible] 1,100 4,500
4,500

Statement showing U/w's liability :-

particulars	A	B	C	Total
Gross liability	5,000	[illegible]	[illegible]	10,000
(-) Unmarked appl^n	2,250	[illegible]	900	4,500
[5,500 × 1 : ...]	2,750	[illegible]	[illegible]	5,500
(-) Marked appl^n	2,500	[illegible]	[illegible]	[illegible]
	250	750	[illegible]	[illegible]
(+) Firm U/w	1,000	500	500	[illegible]
	1,250	1,250	500	[illegible]

Q. ABC Co issued 20,000 shares which were U/w by X, Y and Z as follows :- X 10,000 shares, Y 6,000 shares, Z 4,000 shares. In addition there were firm U/w as follows: X 1,000 shares, Y 500 shares, Z 1,500 shares. The Co received appl^n for 15,200 shares including firm U/w and no. of marked appl^n were as under: X 3,000 shares, Y 5,500 shares, Z 1,700 shares. Find U/w's liability incl. of firm U/w as marked appl^n and unmarked appl^n.

Sol^n Note: In this problem total subscription includes firm U/w, Marked appl^n is exclusive of firm U/w.

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Calculation of firm U/w as marked appl^n
Calculation of Unmarked appl^n
Total subscription 15,200
(-) Marked appl^n 9,200
[5,000 + 5,500 + 1,700]
6,000

A) Statement showing U/w's liability

particulars	X	Y	Z	Total
Gross liability	10,000	6,000	4,000	20,000
(-) Unmarked appl^n [5 : 3 : 2]	3,000	1,800	1,200	6,000
	7,000	4,200	2,800	14,000
(-) Marked appl^n	3,000	5,500	1,700	9,200
	4,000	(1,300)	1,100	4,800
(-) Surplus transfer to X (1300 × 5 : 2)	928.57	–	371.43	1,300
	3,071.43		728.57	3,800
(+) Firm U/w	1,000	500	1,500	3,000
	4,071.43	500	2,228.57	6,800

Firm U/w as unmarked appl^n
Total subscription 15,200
(-) Marked appl^n
3,000 [illegible] 2,000
5,500 [illegible] 5,000
1,700 [illegible] 200
[illegible]
Unmarked applications [illegible]

Statement showing underwriters liability:

particulars	X	Y	Z	Total
Gross liability	10,000	6,000	4,000	20,000
(-) Unmarked appl	4,500	2,900	1,600	9,000
(5:3:2)	5,500	3,100	2,400	11,000
(-) Marked appl	[illegible]	6,000	100	4,200
	[illegible]	-700	2,000	4,800
(b) Firm underwriting				
(-) Surplus	[illegible]		300	800
(2:1:1)	1,000		4,800	6,800
(+) Firm u/w	1,000	[illegible]	1,900	3,000
	4,800	[illegible]	3,300	7,800

(a) What are preference shares?