FIRM UNDERWRITING.

Firm underwriting means when an underwriter agrees to buy a definite number of shares or debentures in addition to the shares or debentures he has to take under the underwriting agreement. In case of firm underwriting the underwriters get priority over the general public, if shares or debentures are oversubscribed.

a) When a firm underwriting (included in total subscription) is treated on part with unmarked applications. The format for calculating total liability for each underwriter will be as follows.

Particulars	A	B	Total
Gross Liability	XXX	XXX	XXX
(-) unmarked applications (Total application received –marked application)	XXX	XXX	XXX
Balance	XXX	XXX	XXX
(-) Marked applications	XXX	XXX	XXX
Net Liability	XXX	XXX	XXX
(+) Firm Underwriting	XXX	XXX	XXX
Total Liability	**XXX**	**XXX**	**XXX**

b) When Firm underwriting (included in total subscription) is treated on part with marked application the format for calculating total liability will be as follows.

Particulars	A	B	Total
Gross Liability	XXX	XXX	XXX
(-) unmarked applications (Total application received –marked application + Firm Underwriting)	XXX	XXX	XXX
Balance	XXX	XXX	XXX
(-) Marked applications (Marked application + Firm Underwriting)	XXX	XXX	XXX
Net Liability	XXX	XXX	XXX
(+) Firm Underwriting	XXX	XXX	XXX
Total Liability	**XXX**	**XXX**	**XXX**

1. A company issued 1,00,000 shares these shares were underwritten as follows: X-60,000 , Y-25,000 , Z-15,000. In additional their is firm underwriting X-8,000, Y-3,000, Z-10,000 shares. The total subscription including the firm underwriting was 71,000 shares and the firms included the following marked application:X-10,000 , Y-20,000 , Z-5,000. Determine the liability of underwriters.

→ **i. Calculation of unmarked application:**

Total application received	71,000
(-) marked application (10,000+20,000+5,000)	35,000
	36,000

ii. Calculation showing underwriters liability

Particulars	X	Y	Z	Total
Gross Liability	60,000	25,000	15,000	1,00,000
(-)unmarked application	21,600	9,000	5,400	36,000
	38,400	16,000	9,600	64,000
(-) marked application	10,000	20,000	5,000	35,000
	28,400	-4,000	4,600	29,000
(-) surplus of Y's distributer to X & Z (4,000*12:3)	3,200	-	800	-
Net Liability	25,200	-	3,800	29,000
(+) Firm underwriting	8,000	3,000	10,000	21,000
Total liability	33,200	3,000	13,800	50,000

2. Meena Ltd has authorised company of Rs.50,00,000 divided into 1,00,000 equity shares of Rs.50 each. The Company issued for subscription 50,000 shares at a premium of Rs.10 each. The entire issue was underwritten as follows : A-30,000 (firm underwriting 5,000), B-15,000 (firm Underwriting 2,000), C-5,000(Firm Underwriting 500).

Out of the total issue 45,000 shares including firm underwriting wee subscribed. The following were the marked applications: A-16,000 , B-10,000 , C-4,000. Calculate the liability of each underwriters.

→ **i. Calculation of unmarked application:**

Total subscription received   45,000

(-) marked application (16,000+10,000+4,000)   30,000

                                 15,000

ii. Calculation showing underwriters liability

Particulars	A	B	C	Total
Gross Liability	30,000	15,000	5,000	50,000
(-)unmarked application (15,000*6:3:1)	9,000	4,500	1,500	15,000
	21,000	10,500	3,500	35,000
(-) marked application	16,000	10,000	4,000	30,000
	5,000	500	-500	5,000
(-) surplus of 'C' distributer to A &B (500*6:3)	333	167	-	-
Net Liability	4,667	333	-	5,000
(+) Firm underwriting	5,000	2,000	500	7,500
Total liability	9,667	2,333	500	12,500

3. ABC company issued 20,000 shares which were underwritten by X,Y & Z as follows : X-10,000 , Y-6,000 , Z-4,000. In additional there was firm underwriting by X-1,000 , Y-500 , Z-1,500. A company received applications for 15,200 shares including firm underwriting and the Number of marked applications were as follows: X-3,000 , Y-4,500 , Z-1,700. Calculate the liability of each underwriters.

→ **i. Calculation of unmarked application:**

Total share received	15,200
(-) marked application (3,000+4,500+1,700)	9,200
	6,000

ii. Calculation showing underwriters liability

Particulars	X	Y	Z	Total
Gross Liability	10,000	6,000	4,000	20,000
(-)unmarked application	3,000	1,800	1,200	6,000
(6,000*5:3:2)	7,000	4,200	2,800	14,000
(-) marked application	3,000	4,500	1,700	9,200
	4,000	-300	1,100	4,800
(-) surplus of Y's distributer to X & Z (300*5:2)	214	-	86	-
Net Liability	3,786	-	1,014	4,800
(+) Firm underwriting	1,000	500	1,500	3,000
Total liability	4,786	500	2,514	7,800

4. X ltd issued 4,00,000 shares of Rs.10 each the entire issue was underwritten as follows. A-2,00,000(firm underwriting 40,000), B – 1,20,000 (Firm Underwriting 20,000), C-80,000 (firm underwriting 20,000).Shares applied for were 3,60,000. The following being the marked forms including Firm underwriting A-1,40,000 , B-56,000 , C-64,000. Calculate the liability of each Underwriter.

i. Calculation of unmarked application:

Total share received	3,60,000
(-) marked application (1, 40,000+56,000+64,000)	2,60,000
	1,00,000

ii. Calculation showing underwriters liability

Particulars	A	B	C	Total
Gross Liability	2,00,000	1,20,000	80,000	4,00,000
(-)unmarked application	50,000	30,000	20,000	1,00,000
(1,00,000*5:3:2)	1,50,000	90,000	60,000	3,00,000
(-) marked application	1,40,000	56,000	69,000	2,60,000
	10,000	34,000	-4,000	40,000
(-) surplus of 'C' distributer to A&B (4,000*5:3)	2,500	1,500	-	
Net Liability	7,500	32500	-	40,000
(+) Firm underwriting	40,000	20,000	20,000	80,000
Total liability	47,500	52,500	20,000	1,20,000

5. Embassy Ltd issued 10,000 Shares of Rs.100 each a premium of Rs.20 per share. The entire issue was underwritten by A, B & C as follows. A-5,000 (firm Underwriting-1000),B-3,000(firmUnderwriting-500),C-2,000(firmUnderwriting-500). Public have applied for 9,000 shares. The following are the marked forms including Firm Underwriting A-3,500, B-1,400 , C-1,600.

i. Calculation of unmarked application:

Total subscription received	9,000
(-) marked application including u/w	6,500
(3,500+1,400+1,600)	2,500

ii. Calculation showing underwriters liability

Particulars	X	Y	Z	Total
Gross Liability	5,000	3,000	2,000	10,000
(-)unmarked application	1,250	750	500	2,500
(2,500*5:3:2)	3,750	2,250	1,500	1,500
(-) marked application	3,500	1,400	1,600	6,500
	250	850	-100	1,000
(-) surplus of 'C' distributer to A & B (100*5:3)	63	37	-	-
Net Liability	187	813	-	1,000
(+) Firm underwriting	1,000	500	500	21,000
Total liability	1,187	1,313	500	3,000

6. Bangalore House building Association Ltd. Issued 1,00,000 equity shares of Rs.100 each. P, Q, R & S underwriters the entire issue in the proportion of 40% , 30%, 20% & 10% respectively . In consideration of commission in cash at 4% they also applied for Firm Underwriting : P-3,000 , Q-2,000 , R-2,000 , S-3,000 exclusive of Firm Underwriting Besides the firm applications from the underwrite the public apply for 60,000 shares of which marked applications were as follows: P-10,000 , Q-6,000 , R-8,000 & S-16,000 show the number of shares to be taken up by each of the underwriting and also the commission receivable in cash.

→ **i. Calculation of Total Subscription**

Total Subscription =No. of application received +Firm underwriting
= 60,000+(3,000+2,000+2,000+3,000)
= 60,000+10,000
= 70,000

ii. Calculation of unmarked application:

Total subscription received	70,000
(-) marked application Ex	40,000
(10,000+6,000+8,000+16,000)	30,000

Note: Firm underwriting treated as unmarked applications

iii. Calculation showing underwriters total liability

Particulars	P	Q	R	S	Total
Gross Liability	40,000	30,000	20,000	10,000	1,00,000
(-)unmarked application (30,000*4:3:2:1)	12,000	9,000	6,000	3,000	30,000
	28,000	21,000	14,000	7,000	70,000
(-) marked application	10,000	6,000	8,000	16,000	30,000
	18,000	15,000	6,000	-9,000	40,000
(-) surplus of 'S' distributer to P,Q & R (9,000*4:3:2)	4,000	3,000	2,000		9,000
Net Liability	14,000	12,000	4,000	-	30,000
(+) Firm underwriting	3,000	2,000	2,000	3,000	10,000
Total liability	17,000	14,000	6,000	3,000	40,000

iv. Calculation of underwriters commission

P= 40,000*100*4%=Rs.1,60,000

Q=30,000*100*4%=Rs.1,20,000

R=20,000*100*4%=Rs.80,000

S=10,000*100*4%=Rs.40,000

7. A company issued 30,000 shares of Rs.10 each. These shares were underwritten as follows. X-18,000 , Y-7,500 , Z-4,500 I addition there was Firm Underwriting:X-2,400 , Y- 900 , Z-3,000 . Total applications received by the company (excluding firm underwriting & marked applications) were 4,500 shares.

   Marked applications were X-3,000 Y-6,000 , Z-1,500. Determine the liability of the underwriter.

→ **i. Calculation of Total Subscription**

Total Subscription =No. of application received +Firm underwriting +marked application   = 4,500+6,300+10,500

               = 21,300

ii. Calculation of unmarked application:

Total subscription received   21,300

(-) marked application Ex   10,500

 (3,000+6,000+1,500)   10,800

Firm underwriting =2,400+900+3,000

          = 6,300

iii. Statement showing total liability

Particulars	X	Y	Z	Total
Gross Liability	18,000	7,500	4,500	30,000
(-)unmarked application (10,800*12:5:3)	6,480	2,700	1,620	10,800
	11,520	4,800	2,880	19,200
(-) marked application	3,000	6,000	1,500	10,500
	8,520	-1,200	1,380	8,700
(-) surplus of 'Y' distributer to X & Z (1,200*12:3)	900	-	240	
Net Liability	7,560	-	1,140	8,700
(+) Firm underwriting	2,400	900	3,000	6,300
Total liability	9,960	-900	4,140	15,000

8. A company a public issue of 1,25,000 equity shares of Rs.100 each the entire issue was underwritten by A, B , C & D in a proportion of 30% , 25% , 25% & 20% respectively. Under the terms agreed upon a commission of 2% was payable to the underwriters.

   A, B, C & D also agreed upon firm Underwriting of 4,000 ; 6,000; Nil ; 15,000 shares respectively. The total subscription excluding firm underwriting but including marked applications 90,000 shares marked applications received were ; A-24,000 ; B-20,000; C-12,000 & D-24,0001 shares . determine the liability of the underwriters.

→ **i. Calculation of Total Subscription**

Total Subscription =No. of application received +Firm underwriting

$$= 90,000+(4,000+6,000+0+15,000)$$
$$= 90,000+25,000$$
$$= 1,15,000$$

ii. Calculation of unmarked application:

Total subscription received	1,15,000
(-) marked application	80,000
(24,000+20,000+12,000+24,000)	35,000

iii. Calculation showing underwriters total liability

Particulars	A	B	C	D	Total
Gross Liability	37,500	31,250	31,250	25,000	1,25,000
(-)unmarked application (35,000*6:5:5:4)	10,500	8,750	8,750	7,000	35,000
	27,000	22,500	22,500	18,000	90,000
(-) marked application	24,000	20,000	12,000	24,000	80,000
	3,000	12,500	10,500	-6,000	10,000
(-) surplus of 'D' distributer to A,B & C (6,000*6:5:5)	2,250	1,875	1,875	-	
Net Liability	750	125	8,625		10,000
(+) Firm underwriting	4,000	6,000	-	15,000	25,000
Total liability	4,750	6,125	8,625	15,000	35,000

iv. Calculation of underwriters commission

P= 37,500*100*2%=Rs.75,000
Q=31,250*100*2%=Rs.62,500
R=31,250*100*2%=Rs.62,500
S=25,000*100*2%=Rs.50,000

9. A company issued 24,000 shares of Rs.10each. these shares were underwritten as follows : X-14,400 ; Y-6,000 ; Z-3,600 shares. Firm underwriting X-1,920 ; Y- 720 ; Z-2,400. The total subscriptions received except of firm underwriting and marked application were 3,600 shares. Marked applications were X-2,400; Y- 4,800; X-1,200. Determine the liability of Underwriters.

i. Calculation of Total Subscription

Total Subscription =No. of application received +Firm underwriting +marked
application   = 3,600+8,400+5,040
           = 17,040

ii. Calculation of unmarked application:

Total subscription received   17,040
(-) marked application(2,400+4,800+1,200   8,400
                            8,640

Marked application =2,400+4,800+1,200
            = 8,400
Firm underwriting = 1,920+720+2400
            = 5040

iii. Statement showing total liability

Particulars	X	Y	Z	Total
Gross Liability	14,400	6,000	3,600	24,000
(-)unmarked application (8,640*12:5:3)	5,184	2,160	1,296	8,640
	9,216	3,840	2,304	15,360
(-) marked application	2,400	4,800	1,200	8,400
	6,816	-960	1,104	6,960
(-) surplus of 'Y' distributer to X & Z (960*12:3)	768	-	912	-
Net Liability	6,048	-	912	6,960
(+) Firm underwriting	1,920	720	2,400	5,040
Total liability	7,968	720	3,312	5,040

10. Nischal Ltd 2,50,000 shares of Rs.10each which was underwritten as follows: Mr. A 75,000 (firm underwriting -8,000) Mr.B – 62,500 (firm underwriting - 12,000) Mr.C – 62,500 (firm underwriting -Nil), Mr.D-50,000 (firm underwriting - 30,000).

The total applications excluding firm underwriting but including marked applications were for 1,80,000 shares. The marked applications were as follows ; Mr.A-40,000 ; Mr.B – 36,000 ; Mr.C-24,000 & Mr.D+48,000. Calculate the Net liability of each underwriter treating (a) Firm underwriter as marked applications (b) Firm underwriter as unmarked applications.

→ **i. Calculation of Total Subscription**

Total Subscription =No. of application received +Firm underwriting

= 1,80,000+(8,000+12,000+30,000)

= 1,80,000+50,000

= 2,30,000

a) Firm underwriting as marked application

ii. Calculation of unmarked application:

Total subscription received	2,30,000
(-) marked application(including Firm U/w (48,000+48,000+24,000+78,000)	1,98,000
	32,000

iii. Calculation showing underwriters total liability

Particulars	Mr. A	Mr. B	Mr. C	Mr. D	Total
Gross Liability	75,000	62,500	62,500	50,000	2,50,000
(-)unmarked application (32,000*6:5:5:4)	9,600	8,000	8,000	6,400	32,000
	65,400	54,500	54,500	43,600	2,18,000
(-) marked application	48,000	48,000	24,000	78,000	1,98,000
	17,400	6,500	30,500	-34,400	20,000
(-) surplus of 'D' distributer to A,B & C (34,000*6:5:5)	12,900	10,750	10,750	-	
	4,500	-4,250	19,750	-	
(-) surplus of 'D' distributer to A,B & C (4,250*6:5)	2318		1,932		
Net Liability	1,932		17,818		20,000
(+) Firm underwriting	8,000	12,000	-	30,000	50,000
Total liability	10,182	12,000	17,818	30,000	70,000

b) Firm underwriting as unmarked application

ii. Calculation of unmarked application:

Total subscription received 2,30,000

(-) marked application(excluding Firm U/w) 1,48,000

(40,000+36,000+24,000+48,000) 82,000

iii. Calculation showing underwriters total liability

Particulars	Mr. A	Mr. B	Mr. C	Mr. D	Total
Gross Liability	75,000	62,500	62,500	50,000	2,50,000
(-)unmarked application (82,000*6:5:5:4)	24,600	20,500	20,500	16,400	82,000
	50,400	42,000	42,000	33,600	1,68,000
(-) marked application	40,000	36,000	24,000	48,000	1,48,000
	10,400	6,000	18,000	-14,400	20,000
(-) surplus of 'D' distributer to A,B & C (14,400*6:5:5)	5,400	4,500	4,500	-	
Net Liability	5,000	1,500	13,500	-	20,000
(+) Firm underwriting	8,000	12,000	-	30,000	50,000
Total liability	13,000	13,500	13,500	30,000	70,000

11. X Ltd invited applications from public for 2,50,000 shares of Rs.10 each at a premium of Rs.5 per share. The entire issue was underwritten by underwriters P, Q , R & S to the extent of 30% , 20% , 30% & 20% respectively with the provision of firm underwriting of 7,500 ; 2,500 ; 5,000 & 2,500 shares respectively. The underwriters were entitled to the maximum commission as perlaw in force and practise lay down by SEBI.

The co-received applications for 1,75,000 shares excluding firm underwriting. The marked applications were 47,000 ; 52,500 ; 25,000 & 20,000 respectively calculate the liability of each of the underwriters treating.

a) Firm underwriting as marked applications
b) Firm Underwriting as unmarked applications .
Also calculate the underwriters commission payable to different underwriters.

→ i. **Calculation of Total Subscriptions**

Total subscriptions received	1,75,000
(-) firm underwriting (7,500+2,500+5000+2,500)	17,500
	1,92,500

a) Firm underwriting as marked application

i. **Calculation of unmarked application**

Total subscriptions	1,92,500
(-) marked application (including firm U/w)	1,62,000
(54,500+55,000+30,000+22,500)	30,500

ii. **Statement of underwriters liability**

Particulars	P	Q	R	S	Total
Gross Liability	75,000	50,000	75,000	50,000	2,50,000
(-)unmarked application (30,500*3:2:3:2)	9,150	6,100	9,150	6,100	30,500
	65,850	43,900	65,850	43,900	2,19,500
(-) marked application	54,500	55,000	30,000	22,500	1,62,000
	11,350	-11,100	35,850	21,400	57,500
(-) surplus of 'Q' distributer to P,R & S (11,100*3:3:2)	4,162		4,162	2,776	
Net Liability	7,188		31,688	18,624	57,500
(+) Firm underwriting	7,500	2,500	5,000	2,500	17,500
Total liability	14,688	2,500	36,688	21,124	75,000

b) Firm underwriting as unmarked applications

i. **calculation of unmarked application**

Total subscription	1,92,500
(-) marked application (excluding F U/w)	1,44,500
(47,000+52,500+25,000+20,000)	48,000

i. Statement of underwriters liability

Particulars	P	Q	R	S	Total
Gross Liability	75,000	50,000	75,000	50,000	2,50,000
(-)unmarked application (48,000*3:2:3:2)	14,400	90,600	14,400	9,600	48,000
	60,600	40,400	60,600	40,400	1,98,000
(-) marked application	47,000	52,500	25,000	20,000	1,44,500
	13,600	-12,100	35,600	20,400	53,500
(-) surplus of 'Q' distributer to P,R & S (12,100*3:3:2)	4,537	-	4,537	3,026	-
Net Liability	9,063		31,063	17,374	53,500
(+) Firm underwriting	7,500	2,500	5,000	2,500	17,500
Total liability	14,688	2,500	36,063	19,874	71,000

iv. Calculation of commission underwriters

P= 75,000*100*2.5%=Rs.28,125
Q=50,000*100*2.5%=Rs.18,750
R=75,000*100*2.5%=Rs.28,125
S=50,000*100*2.5%=Rs. 18,750

12. Apporva Ltd issued 5,00,000 equity shares of Rs.10 each at a premium of 20% the issue was underwritten by 3 persons A, B & C as follows: A-2,50,000 (firm Underwriting -25,000), B- 1,50,000 (firm Underwriting -15,000) & C-1,00,000 (firm Underwriting -10,000).

The underwriting commission % on the issue price and A Company agreed to create firm under writing applications as marked forms. The company received applications for 4,00,000 equity shares (excluding firm underwriting) of which marked forms were as follows : A-1,15,00 ; B-1,25,000 ; & C-1,30,000 you are required to show

a) Net liability of underwriters in terms of Number of shares
b) Commission due to each underwriter
c) Net amount due from each underwriter to the company.

→ **i. Calculation of Total Subscription**

Total Subscription =No. of application received +Firm underwriting

$$= 4,00,000+(25,000+15,000+10,000)$$
$$= 4,00,000+50,000$$
$$= 4,50,000$$

ii. Calculation of unmarked application:

Total subscription received	4,50,000
(-) marked application	4,20,000
(1,40,000+1,40,000+1,40,000)	30,000

iii. Calculation showing underwriters Net liability

Particulars	A	B	C	Total
Gross Liability	2,50,000	1,50,000	1,00,000	5,00,000
(-)unmarked application (30,000*5:3:2)	15,000	9,000	6,000	30,000
	2,35,000	1,14,000	94,000	4,70,000
(-) marked application	1,40,000	1,40,000	1,40,000	4,20,000
	95,000	1,000	-46,000	50,000
(-) surplus of 'C' distributer to A,B (46,000*5:3)	28,750	17,250	-	50,000
	66,250	-16,250	-	
(-) surplus of 'B' distributer to A & C (16,250*5)	16,250	-	-	50,000
Net Liability	50,000			50,000
(+) Firm underwriting	25,000	15,000	10,000	50,000
Total liability	75,000	15,000	10,000	1,00,000

b) iii. Underwriters commission:

A-2,50,000*12*5%=Rs.1,50,000

B-1,50,000*12*5%=Rs.90,000

C-1,00,000-12*5%=Rs.60,000

c) Calculation of Net amount due from each underwriter to the company

A=75,000*12 = Rs.9,00,000

B=15,000*12=Rs.1,80,000

C=10,000*12=Rs. 1,20,000

Net amount due - Net amount – commission

A= 9,00,000-1,50,000=7,50,000

B=1,80,000-90,000= 90,000

C=1,20,000-60,000=60,000

13. Ram Ltd invited applications from public for 1,00,000 shares of Rs.10each at a premium of Rs.5per share. The entire issue was underwritten by underwriters P, Q, R & S to the extent of 30%, 30%, 20% & 20% respectively with the provision of firm underwriters of 3,000 ; 2,000 ; 1,000 ; 1,000 respectively. The underwriters are entitled to the maximum commission as per the provisions of the company's act of 1956. The company received applications for 70,000 shares (excluding firm Underwriters) out of which applications for 19,000 ; 10,000 ; 21,000 ; 8,000 were marked in favour of P, Q, R & S calculate the liability of each underwriter by providing relief for firm applications also ascertain the underwriting commission payable to different underwriters.

→ i. **Calculation of Total Subscription**

Total Subscription = No. of application received + Firm underwriting
$$= 70,000 + (3,000 + 2,000 + 1,000 + 1,000)$$
$$= 70,000 + 7,000$$
$$= 77,000$$

ii. Calculation of unmarked application:

Total subscription received	77,000
(-) marked application	65,000
(22,000+12,000+22,000+9,000)	12,000

iii. Statement of underwriters liability

Particulars	P	Q	R	S	Total
Gross Liability	30,000	30,000	20,000	20,000	1,00,000
(-)unmarked application (12,000*3:3:2:2)	3,600	3,600	2,400	2,400	12,000
	26,400	26,400	17,600	17,600	88,000
(-) marked application	22,000	12,000	22,000	9,000	65,000
	4,400	14,400	-4,400	8,600	23,000
(-) surplus of 'R' distributer (4,400*3:3:2)	1,650	1,650	-	1,100	
Net Liability	2,750	12,750	-	7,500	23,000
(+) Firm underwriting	3,000	2,000	1,000	1,000	7,000
Total liability	5,750	14,750	1,000	8,500	30,000

iv. Calculation of underwriters commission

P= 30,000*15*5%=Rs.22,500
Q=30,000*15*5%=Rs.22,500
R=20,000*15*5%=Rs.15,000
S=20,000*15*5%=Rs.15,000