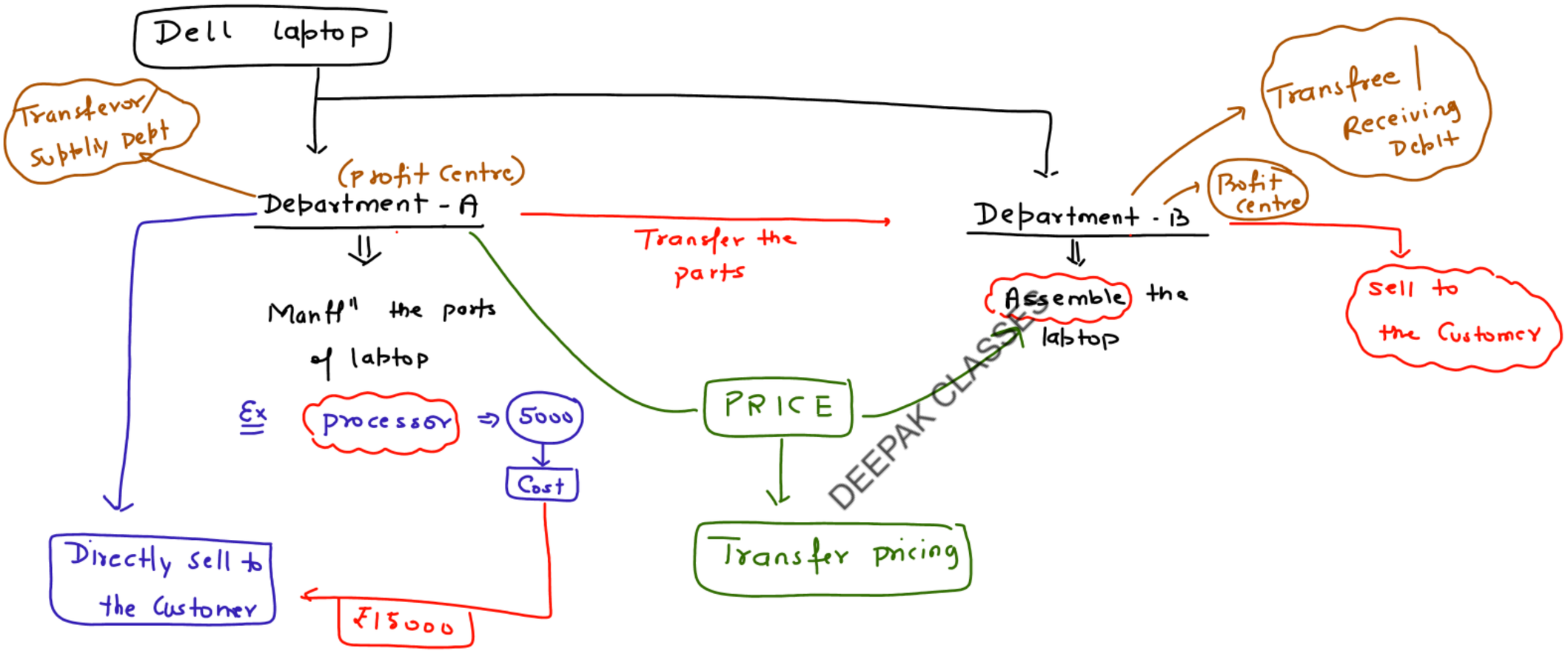
Transfer pricing



Meaning of Transfer pricing

① Transfer pricing is Concerned with the **price** one profit Centre **Charge** another profit centre **within** the Company for product or service provided

② Since the Supply profit Centre's **Revenue** become the Receiving profit Centre's **Cost**

③ The transfer price chosen Can have a significant impact on the evaluation of a profit Centre's **performance**

④ Transfer pricing play a very important in International taxation also, as by Fixing Fair transfer price one Can avoid a lots of tax Burden

Advantage of transfer pricing

1. Top manager have more time to devote to general planning Since they are not Burden in daily routine decision
2. The decision making task is distribute among the delzartment
3. Better Control Can be acheived
4. Manager are Better motivated
5. As a manager Become more proficient in decision making.

Disadvantage of transfer pricing

1. The Extend of Authority and Responsibility to be decentarlized is difficult to determine
2. Manager needed to head the decentarlized unit must be selected and trained
3. The varied Activities of decentralized unit must be Coordinated, a difficult task
4. Evaluating the performance of unit and the individual manager is often problematic.

objective of Transfer pricing

① Transfer price should help in the accurate measurement of divisional performance

② Transfer price should motivate the divisional manager into maximizing the profitability of their division.

③ Transfer price should allow goal Congruence to take place. which mean that objective of divisional manager Compatible with the objectives of overall Company.

④ A transfer price system, if properly established can check MNC which may try to manipulate transfer prices between Country in order to minimize the overall tax Burden.

Method of Transfer pricing

- Cost Based Transfer price
  - Marginal Cost
  - Absorption Cost
  - standard Cost
  - Two part tariff
- Market Based Transfer price
- Negotiated Transfer price

illustration

Q3 Computation of transfer price for product Alpha

		₹
Variable Cost	[400,000 x 10] =	40,00,000
Fixed Cost	=	8,00,000
	Total Cost	48,00,000
(+) ROI	[10L x 28%]	2,80,000
		50,80,000

Transfer price = 50,80,000 / 4,00,000 = 12.70

Q4 (1)

(a) Computation of profit for Division Y

		₹
Selling price	=	1200
Less purchase cost from Division X	=	(700)
Own variable cost	=	(600)
Loss		100

(b) Calculation of overall Company profit

		₹
Selling price	=	1200
less: overall cost		
Division X	=	(520)
Division Y	=	(600)
Profit		80

(2) Calculation the profit of Division X

		₹
Selling price	=	700
Less:- variable cost	=	(520)
Contribution		180

The Company Contribution ₹ 100/unit is greater if Sub assembly is sold in open market Rather than transfer to Division Y

(3)

Alternative 1 :- Transfer 1000 unit to Division Y

Alternative 2 :- 500 unit sold in open market & 500 transfer D-Y

Alternative 3 :- 1000 Sell to open market 20% Reduction in SP.

Alternative 1

		₹
Company Sale (1000 X 1200)	=	12,00,000
less :- Company Cost		
Division X (1000 x 520)	=	520,000
Division Y (1000 x 600)	=	600,000
Company Cont.		80,000

Alternative 2

Company Sale [500 x 700 + 500 x 1200]	=	950,000
less :- Cost		
Divisin X (1000 X 520)	=	(520,000)
Division Y (500 X 600)	=	(300,000)
Contribution		130,000

Alternative 3

Company Sale [1000 x 560 (100 - 20%)]	=	560,000
less :- V.C [1000 x 520]	=	(520,000)
Contribution		40,000

Comment

Alternative 2 is Best because it give Higher Contribution as Compare to other Alternative.

(5)

(a) Minimum transfer price = Marginal Cost + opportunity Cost

= 700 + 360

= 1060

Calculating opportunity Cost

	₹
Selling to Market	1100
less:- Variable Cost	
Making	(700)
Marketing & dist	(40)
Profit	360

(b)

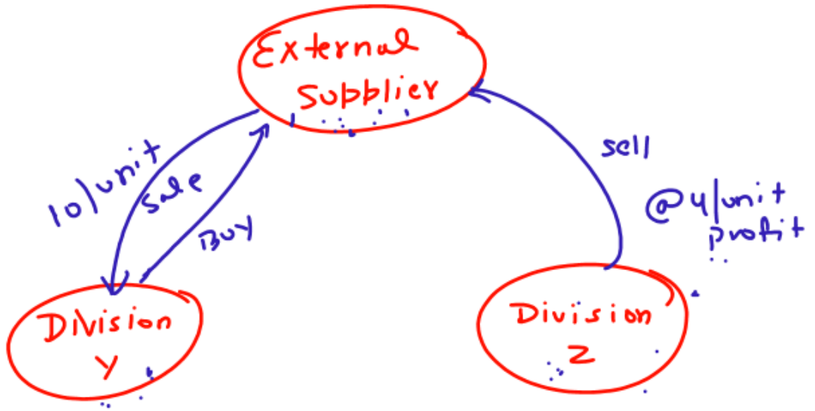
Total Cost if Assembly division buy from open Market = 1100 + 20

= 1120

Purchase Cost if Assembly division Buy from picture tube division = 1060

Negotiated price Range = 1060 to 1120

Q7



(a)

Division X

Sale [50000 × 10]	=	500,000
less:- Variable Cost	=	(250,000)
Contribution		250,000

Opportunity cost = 250,000

Transfer price = Marginal Cost + Opportunity Cost

= 250,000 + 250,000

= 500,000

Transfer price unit = $\frac{500,000}{50,000}$ = 10/unit

(b) In this situation

Transfer price = Variable Cost/unit + Cont/unit + profit to be lost by Division Z

= $\frac{250,000}{50,000}$ + $\frac{250,000}{50,000}$ + 4

= 5 + 5 + 4 = 14

Completed question = 3, 4, 5, 7

Target = 8, 9, 10, 11, 15

Q8

Total Contribution Required = RI + Fixed Cost + Cost of Capital

= 1 Cr + 80L + 90L [7.50 Cr x 12%]

= 2.70 Cr

Total Contribution earned = unit sold x Cont/unit

= 12 lakh x 20

= 2.40 Cr

Contributed Need = 2.70 Cr − 2.40 Cr

= 30 lakh

Cont/unit = 30 lakh / 300,000

= ₹ 10

Transfer pricing = Variable Cost + Extra Variable Cost + Contribution Need

= 160 + 5 + 10

= 175

(ii) The proposed transfer price of ₹ 175/unit may Result in Sub optimal decision for the Company as a Whole because it acheived 1 Cr Residual income.

Q10

	A	B
V.C	5/unit	4/unit
F.C	1200	800
Sell		15/unit

(11)

Budget production = 400 per month

Rang = 5.01 to 10.99

(Futher Solution discuss in Module)

Q11

Comparative statement of Cost

	Buy Inside	Buy outside
Cost of purchase	–	75000
Inter depth cost	70,000 (1000 x 70)	(1000 x 75)
Total Cost	70,000	75000

5000

It is Better to Accept transfer price of ₹ 100 so that overall profit of Company get higher.

Q15

Overall Company profit.

Sell the product =	12
less:- Marginal Cost	
A = 5	
B = 3	(8)
Cont/unit	4

A transfer the unit at Market price

i.e, 10

Sell the product =	12
less:- transfer cost =	(10)
Variable cost =	(3)
loss/unit	(1)

In this situation, Manager of B might Reject the product Manufacture. on the ground that B will incurred the of loss of ₹1. on every unit sold.

ell-6

① Statement showing Cont / unit

	P	Q	R	S
S.P / unit	350	345	280	230
(-) VC / unit	(330)	(310)	(180)	(185)
Cont / unit	20	35	100	45

② Stmt showing Cont / labour Hour

	P	Q	R	S
Cont / unit	20	35	100	45
labour Hour	3	4	2	3
Cont / Labour Hour	6.67	8.75	50	15
Ranking	IV	III	I	II

③ Statement showing production plan

Product	Hour / unit	Total Hour	Total unit
P - IV	3	—	—
Q - III	4	13000 (B/F)	3250 unit
R - I	2	5600	2800 unit
S - II	3	5400	1800 unit
		24000	

④ Stmt showing transfer price of product S

Total labour Hr Required for S [2000 x 3]	=	6000 Hour
Hour Taken from product Q [1500 x 4]	=	6000 Hour
		₹
Variable Cost [2000 x 185]	=	370,000
Contribution foregone [1500 x 35]	=	52,500
		422,500

Transfer price = $\frac{422,500}{2000}$ = 211.25

(5) Statement showing production plan

Product	Hour/unit	Total Hour	Total unit
P – IV	3	7000 (B/F)	2333 unit
Q – III	4	14000	3500 unit
R – I	2	5600	2800 unit
S – II	3	5400	1800 unit
		32000	

(6) Stmt showing transfer price of product S

Total labour Hr Required for S [2000 × 3] = 6000 Hour

Hour Taken from product P [2000 × 3] = 6000 Hour

₹

Variable Cost [2000 × 185] = 370,000

Contribution foregone [2000 × 20] = 40,000

410,000

Transfer price = $\frac{410,000}{2000}$ = 205/unit

Q3

① Statement showing Cont / unit

	A	B	C	D
S.P / unit	150	146	140	130
(-) VC / unit	(130)	(100)	(90)	(85)
Cont / unit	20	46	50	45

② Stmt showing Cont / labour Hour

	A	B	C	D
Cont / unit	20	46	50	45
labour Hour	3	4	2	3
Cont / Labour Hour	6.67	11.5	25	15
Ranking	IV	III	I	II

③ Statement showing production plan

Product	Hour / unit	Total Hour	Total unit
A - IV	3	600 (B/F)	200 unit
B - III	4	10,000	2500 unit
C - I	2	4600	2300 unit
D - II	3	4800	1600 unit
		20,000 Hr	

④ Stmt showing transfer price of product S

Total labour Hr Required for D [2500 x 3] = 7500 Hr

Hour Taken from product A [200 x 3] = 600 Hr

Hour Taken from product B [1725 x 4] = 6900 Hr

Variable Cost [2500 x 85]	212,500
Contribution foregone [200x20 + 1725x46]	83,350
	2,95,850

Transfer price = $\frac{295,850}{2500}$ = 118.34

③ Statement showing production plan

Product	Hour/unit	Total Hour	Total unit
A – IV	3	8400	2800 unit
B – III	4	10,000	2500 unit
C – I	2	4600	2300 unit
D – II	3	4800	1600 unit
		27,800	

④

Remaining Hour = 30,000 – 27800

= 2200 Hour

Hour Required = 7500 Hour (2500×3)

(–) Hour Available = (2200 Hour)

Hour taken from Product A 5300 Hour (1767×3)

⑤ Stmt showing transfer price of product S

Variable Cost [2500 × 85] = 212500

Contribution foregone [1766.66 × 20] = 35,333

247,833

Transfer price = $\frac{247,833.\overline{33}}{2500}$ = 99.13

Q9

Division A Cost = 15/unit

Division B Cost = 5/unit

Total Cost = 20/unit

S.P/unit = 30/unit

① Transfer price = Cost + 20%

= 15 + 20%

= 18

Stmt showing divisional profit & Gmpony profit

Particulars	Division A	Division B	Total
Selling price.	–	30	30
Transfer price	18	–	
Variable Cost	15	5	20
Transfer Cost	–	18	
Profit	3/unit	7/unit	10/unit

Q10

Division A Cost = 20/unit

Division B Cost = 8/unit

Total Cost = 28/unit

S.P/unit = 30/unit

① Transfer price = Cost + 20%

= 20 + 20%

= 24

Stmt showing divisional profit & Gmpony profit

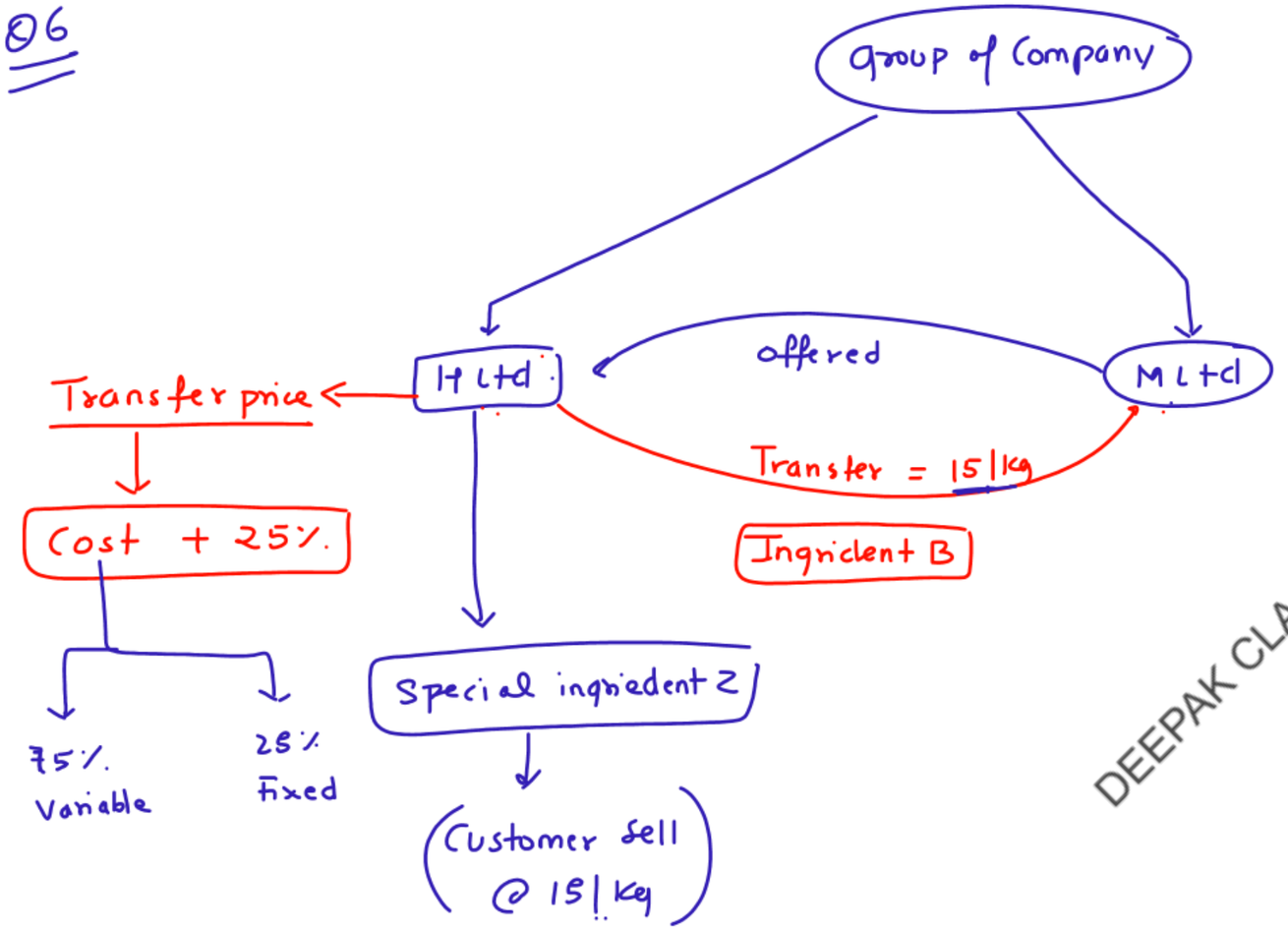
Particulars	Division A	Division B	Total
Selling price.	–	30	30
Transfer price	24	–	–
Variable Cost	20	8	28
Transfer Cost	–	24	–
Profit	4/unit	(2/unit)	2/unit

Pencling Question

illustration = 1, 2, 12, 13, 14,

Comprehensive = 1, 2, 4, 5, 6, 7, 8, 11

Q6



	Cost	100
(+)	Profit	25
	S.P	125

$$\text{Cost} = \frac{SP}{125} \times 100$$

$$= \frac{15/kg}{125} \times 100 = 12/kg$$

(i) Transfer price = Total variable Cost − packing Cost

= 9 − 1·50

= **7·50 | kg**

(ii) Transfer price = Marignal cost

= Variable cost + opportunity

= 9 + 0

= **9 | kg**

Q7

Unit Selling price	No. of unit
50	0
45	100
40	200
35	300
30	400
25	500

Statement showing profit of Company (AB Ltd) as a whole

unit	S.P	sale	V.C of D-A	VC of D-B	Contribution
0	50	0	0	0	0
100	45	4500	1000	1000	2500
200	40	8000	2000	2000	4000
300	35	10500	3000	3000	4500 (Higher)
400	30	12000	4000	4000	4000
500	20	10,000	5000	5000	0

Higher contribution of ₹4500 at 300 unit of level where unit selling price is 35

(b)

Statement showing profit of Division B

unit	S.P	sale	Transfer Cost of D-B	VC of D-B	Contribution	
0	50	0	0	0	0	
100	45	4500	2000	1000	1500	
200	40	8000	4000	2000	2000	← Higher
300	35	10500	6000	3000	1500	
400	30	12000	8000	4000	0	
500	20	10,000	10,000	5000	(5000)	

Higher Contribution of ₹2000 at 200 unit of level where unit selling price is @ 40/unit

(4) Calculating Total unit produce by Division A

Variable Cost @ 22 = 352,000

Total unit produce = $\frac{352000}{22}$

= 16000 unit

External Sale by Division A = $\frac{270,000}{45}$ = 6000 unit

Internal transfer by Division A = $\frac{400,000}{40}$ = 10,000 unit

Internal transfer Cont. by Division A = 40 − 22

= 18 unit

If Division B Buy from another Company 2500 unit

Impact on Division A profit

		₹
External Sale [6000 unit]	=	270,000
Internal Sale [7500 x 40]	=	300,000
Total Revenue		570,000
less :- Variable Cost [13500 x 22]		(297000)
Contribution		273000
less :- Fixed Cost		(100,000)
Profit		173000

Profit of Division A reduced by 45000

[218000 − 173000]

Calculating Cost saving by Division B

Internal transfer Cost [2500 x 40]	=	100,000
less :- External purchase [2500 x 35]	=	(87500)
Cost saving		12500

Impact on Company pwfit = Pwfit Reduce on Division A point of view − Cost saving on Division B point of view

= 45000 − 12500

= 32500

Company pwfit Reduced by 32500

Q2

Division B

(1) offer price = 30

	£
selling Price =	30/unit
less:- Transfer Cost =	20/unit
Variable Cost =	15/unit
Contribution loss	(5/unit)

It is Advice to the Division B clo not the Accept the offer for 30/unit because it incurred a Cont loss of 5/unit.

(b) Company point of view

statement of profit

	A	B	Company Profit
Selling price	-	30	30
Transfer price	20	—	—
Variable Cost	(10)	(15)	(25)
Transfer Cost		(20)	—
Profit	10	(5)	5

From the company point of view rejection of offer at 30/unit will be wrong decision.

(III) If Division A has a surplus Capacity, the internal transfer does not affect it External Sale. Therefore the Company should Accept the offer if it improve Profitability.

(IV) If Division A has operating at Full Capacity, transferring internally at 20 /unit means losing External Sale at the same Price. Therefore Company should not Accept the offer it they does not Cover opportunity Cost.

Q1 Statement of profit for Division Bright

	A	B	C	A − (B+C)
Unit	Transfer price @ 350	V.C @ 110	F C	Profit
10k	35L	11L	60L	(36L)
20k	70L	22L	60L	(12L)
30k	1.05Cr	33L	60L	12 00,000
40k	1.4Cr	44L	60L	36 00,000
50k	1.75Cr	55L	60L	60,00,000
60k	2.10Cr	66L	60L	84 00,000

Statement of profit for Division star

	A	B	C	D	A − (B+C+D)
unit	Sale	Transfer Cost 350	Variable Cost @ 70	Fixed cost	Profit
10k	1Cr	35L	7L	90L	(32 L)
20k	1.8Cr	70L	1.4L	90L	18 60,000
30k	2.4Cr	1.05Cr	2.1L	90L	42,90,000
40k	2.8Cr	1.4Cr	2.8L	90L	47, 80,000
50k	3Cr	1.75Cr	3.5L	90L	31, 50,000
60k	3Cr	2.10Cr	4.2L	90L	(4 20,000)

Statement of profit as a Company whole

unit	Division Bright profit	Division Star profit	Company profit
10k	(36 L)	(32 L)	(68 L)
20k	(12 L)	18.60 L	6.60 L
30k	12 L	42.90 L	54.90 L
40k	36 L	47.80 L	83.80 L
50k	60 L	31.50 L	91.50 L *
60k → 500	84 L *	(4.20 L)	79.80 L

(II) **Maximum profit**

Bright Division = S.P = 500, unit = 60k, profit = 84 L

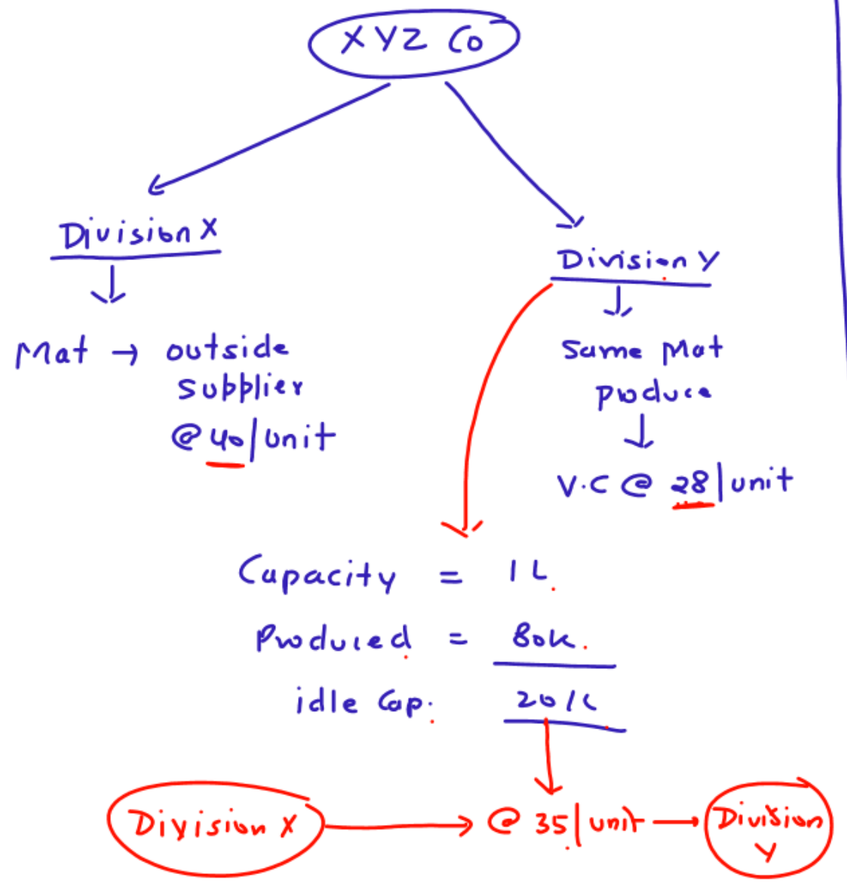
Company as whole = SP = 600, unit = 50k, profit = 91.50 L

Comment

star division not select latter selling Price because it Reduce the Company profit as a whole

(III) Cost Based transfer pricing policy will maximize the Company profit under division organisation because This method is used when their no External market price is available for the intermediate product.

Q11



① Income increased

Division X = 20,000 × [40 - 35]

= 20,000 × 5

= 100,000

Divison Y

Transfer value (20,000 × 35) = 700,000

Less:- Variable Cost (20,000 × 28) = (560,000)

Profit / Income 140,000