

Transfer - Pricing



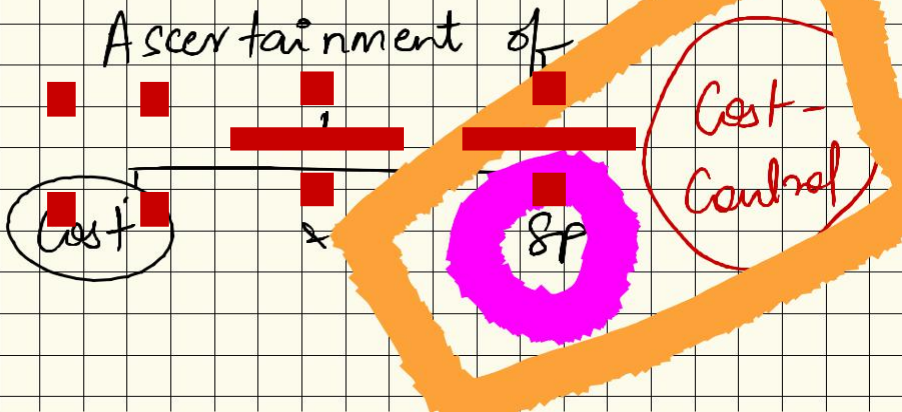
Business

Business

↓
retrofit
Net-Profit
A

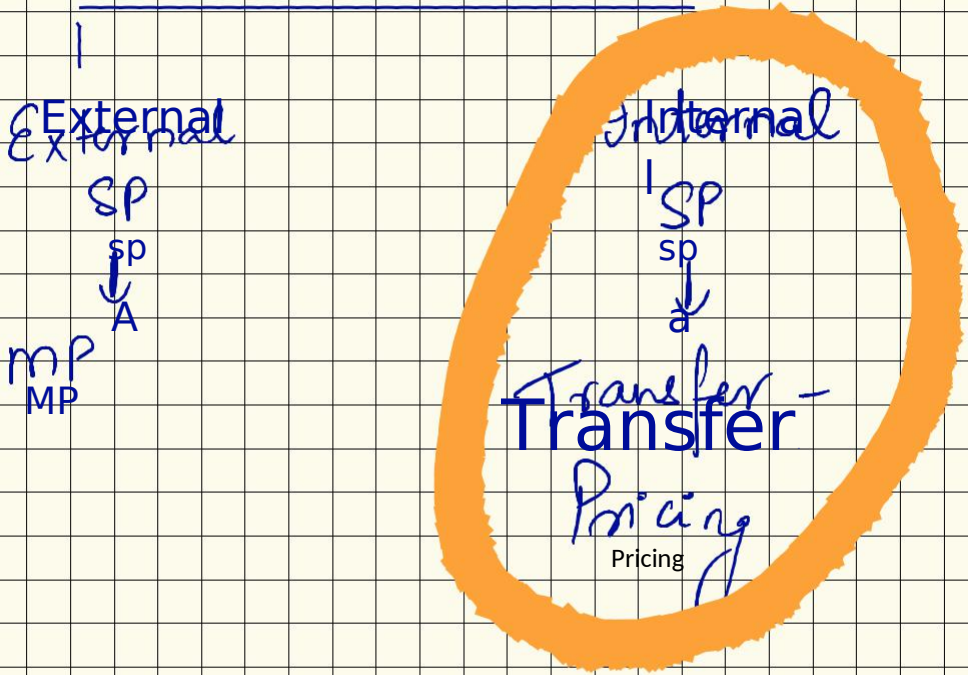
Sales Cost
Sales - at Cost
objectives of MA

Objectives of CA/MA
a-



Oi

SOI S.P. (Selling Price)



Milk

ANE
AMUL
|

Curd

Milk Div.

Trf.

Curd Div.

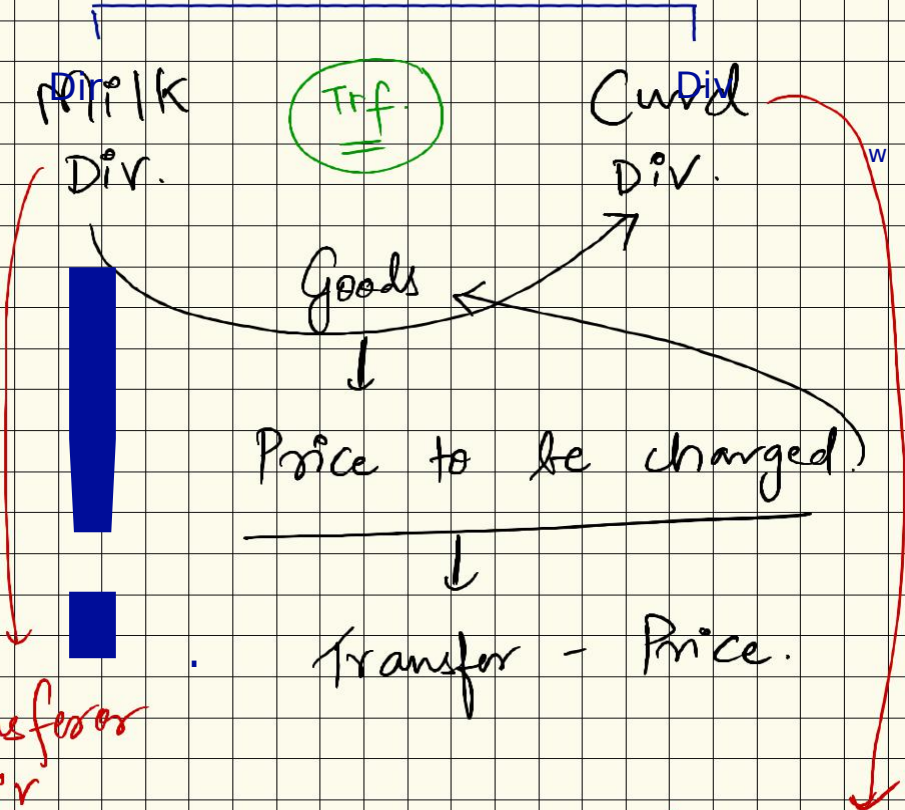
Goods

Price to be changed.

Transfer - Price.

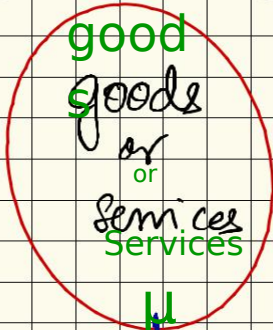
Transferor
Div

Transferee
Div

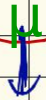


$$\frac{To}{T_o} = \frac{P_o}{P_o}$$

Transferor
 Transferor
 Dir.
 Dir.



Transferee
 Transferee
 Dir.
 Dir.



Price change between

Internal Transfer is
 called as Transfer

called as

✓ TRANSFER Price

|



Transfer

Price

Eliane

Examples:

C Backward /
Backward
forward
Integration.)

Transfere

Transfere

r

a)
a)

Amul
And

milk
milk
Div

Curd
Div
Div

b)
)

Curd
Div
Div

Buttermilk
Div
Di

c)
c)

KPMG
KPMG
Tax Audit

KPMG
Stat. Audit

a)
)

Max Audit
L & T

Stat Audi
L & T t

d)
)

Let
Cement

Infra

Cement

Afr

a

History of Tpf

pre 1995 ; ÷ 1995 post 1995

Centralised

Org
g
↓

Decision Making

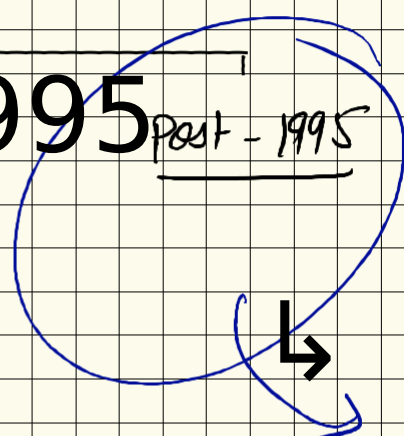
only with Authority Top-Top

↓

• Internal Tsf @ cost ✓

• Authority limited scope ✓

• Employee Internal Tsf → Fixed cost Salary ✓





Employee



Fixed

r

Salay

Posts
Post-1995

Decentralisation /

Departments

⊕

Profit Centric

(Decision making with Dep'ts.)

Tsf of Internal goods / services @

employee (Bonus on Profit)

a proper price called at

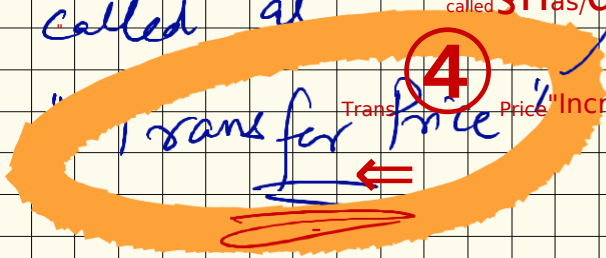
Price

EA

(Scope has increased)

④

"Trans price" Increased



Ba ^{TT} Centralis'n

BA(1995)

~~AMT~~
Amul



Centralised

Milk

Curd

50,000
lts of
milk

± U @ Cool

Capacity: 100,000 ltr
External: 100,000 ltr
Dd



Capacity 100,000 elf
at , og^{ooo} htt
EMEI:

centralised CD Profit

Centre)

|
Amid



Milk

Pdn 100,000µs

cap

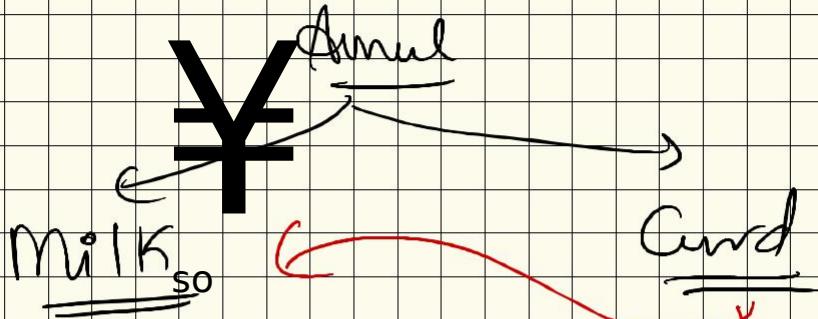
E¥÷

lagoons

cow

Ide

(D) Confidence Profit Centre
£ ¥



Pdn cap : 10,000 us

Ext. Dd. : 10,000 us

Consult
CA

50,000 us
Int Trf.

Centralised Organisation

Particulars

Milk

Curd

B. Mo

Particulars

Milk
100,000

Curd
20,000

B. Mo
10,000

Capacity
9antmr%

100,000
else
etc.

20,000

10,000

10,000£

Internal
demand

20,000
etc.

10,000

Transfer
price

@ cost
@ cost

@ cost
@ cost

Price

=

=

Decentralised + Profit Centric

Decentralised + Profit Centric

Particulars Milk Curd Profit Centric

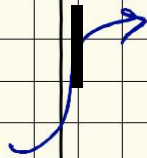
Particulars	Milk	Curd	Profit Centric
Pdn Cap	100,000	20,000	10,000
Internal Pdn Cap	20,000	20,000	10,000
Internal Pdn Cap	20,000	10,000	
TP	@ Method of TP	@ Method of TP	

TP

@ Method of TP
gm%pd
=
=

@ Method of TP
gmefphd
=
=

20,000 / 10,000 = 200%



Example:

Decentralised

+

Profit Centric

==

Case 1

Case 1:

FULL IDLE CAPACITY
FULL - IDLE CAPACITY
cure

Anmol
Milk

d

Curd

Products

100,000

Production

100,000

Capacity

lts.

External

lts.

External demand

80,000

demand

lts.

Jolley

Idle /
Spare
Capacity

20,000 lts

(100,000 - 80,000)

A

Internal Demand

20,000 lts

#

milk :
milk :

MP/SP

Var. Cost

✓

Division

Rs. 100/lit

Rs 80/lit

CA

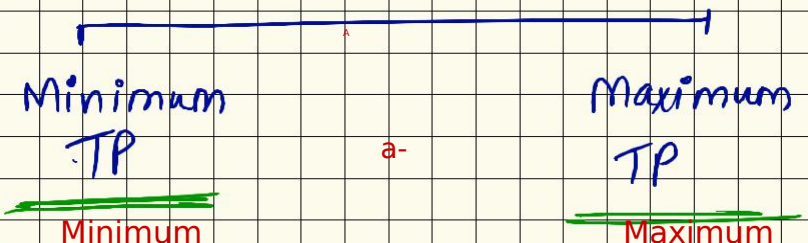
CA

Range
Range of

what should be the T.P. of

of Milk Div'n the? Top

of Milk Divi ?



Recovery of Cost

SP/MP @ (market price)

Recover of

sp/mP

TP = Cost Rs. 80/-

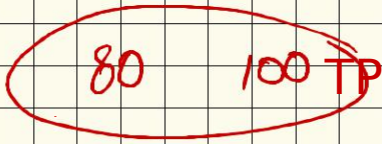
TP = Rs. 100/-

@ c market price)

Range of TP

@

Rs =



Rs

100/-

TP

roof

Ragge

tt

80-

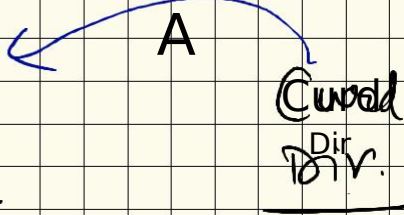
1000

Case 2
Case 2

PART
PART
PART

occupied;
d
Spare.

Milk
Milk
Dir.



Curd
Dir.

Products
Production : 100,000
Capacity
Capacity
External : 90,000
External Demand : 90,000
Spare : 10,000
Spare/Idle Capacity : 10,000
Internal Capacity : (100,000 - 90,000)
Internal Demand : 20,000

ett

20,000
lett

what should be the

Range of TP of the Milk Dir. ?

Minimum TP of Milk Div. Maximum

Minimum TP

Maximum TP

Rs Sof

to

Rs

toof

Rs 90/-

to

Rs 100/-

(90-

(90-100)

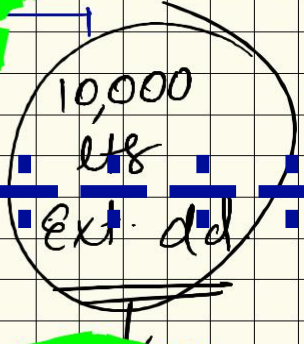
Minimum TP

TP

20,000

20,000
lts

10,000
lts
Spare / edite



Minimum: $\frac{20,000}{10,000} = 2$

@ cost $\div \div \div 0$ @ SP

@ 80/lt ✓

@ 100/lt
@ 100/lt

Rs 800,000/-

Rs 1,00,000

→ Rs

Rs. 1,80,000
 $\frac{1,80,000}{20,000} = 9$

Rs 90/lt
Soft

2¥

=

Maximum Tp

P

Maximum ^{Tp}
@ IMP

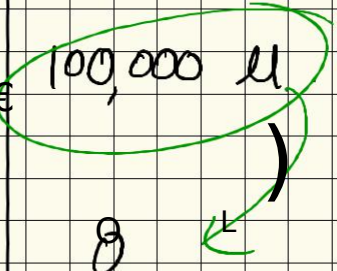
1P @ SP / MP

@ Rs. 100 / et.

CASE : 3
CA&E = 3

fully - occupied
 Milk ← And

Pdn Cap	Milk Us	Curd
<ul style="list-style-type: none"> • Pdn Cap External 	100,000 lbs	
<ul style="list-style-type: none"> • External Demand 	100,000 lbs	
<ul style="list-style-type: none"> • Spare / idle capacity 	0	
Internal		20,000
<ul style="list-style-type: none"> • Internal Bd 		20,000 lbs



What will be the
Rang of TF ?

What will be the
Range of T.P. ?
by milk
by milk

T.P. ?
Dier
Dir's

↓
T

Min TP
=

@ mp
p

= Rs. 100/-

Max TP

@ mp
@ Mp

= Rs. 100/-

roof

Learnin^g Learnings from the 3 CASES:

Case^ts: Fully SPARE CAPACITY
Fully SPARE CAPACITY



Min^t: Recovery of Variable Cost of

Max TP: Market Price Variable Cost

Max TP:

Market

Price

=

CASE - 2: ~~PART~~ Occupied &
CNS2

~~PART~~ Spare

Mind
Min TP:

Avg basis

Spare Capacity Occupied
@ MP

~~Avg~~

Max TP:

$\frac{MP}{SP}$

+
±

$10000 \times 80 + 5000 \times 100$

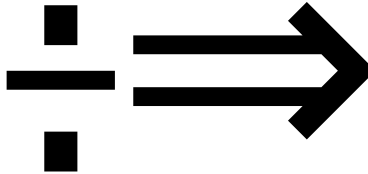
:C:i 15000

Maxi

MP / #

a

10,000×80,1*500×104



CASES :

Fully

Occupied

Min TP

= MP

p

Max TP
Max TP

= ^{MP}
MP

==

Q1:

Solution

(Summary)
(XYZ Ltd.)

@
@
P.u.

XYZ Ltd.

Substitute: Rs 32
Pdt = R
(XYZ Ltd.)



Ext. dd = 18,000 u
Ext = 18,000 "

xingp = q3
AP = Rs. 30/u

ve = Rs 20/u
zo ya

VC = Rs 20/W

Cincl use psalm

④ Riff

- VSC
- Substitute Value

Alteration Cost
substitut value
e

Alteration

n

i) **Rege** Range of TP if
Reqd: Range of TP if
Pdn Capacity = 25000 of P
Pdn Capacity = 25000 of P.
 y

Pdn Capacity = 25000 units
 A units

External Demand
 18,000 units

Spare Spare
 7000 units

ftp.or.

Div B to Div A

A → 5000 units

(within **B** Spare units
 within 5000 Spare Capacity)

(Prima-
 Facie
 Analysis)
 : O ?
 analysis

-8 (¥)
capacity

① win from point of view of Tsfersor
(Think from point of view of Tsfersor)

Min. TP

(Full Space of Tsfersor Capacity)

Mi
n

Recovery of Variability (Cost)

Recovery of Variability Cost

Min. TP @ Tp

Rs2

Rs18

#

¥Rse1

Not KAI say that Vsc will
Internal Tsf. (Default Assump.)

e

not be

incurre
d

o cases
n

of

Internal

Tsf (Default

As up 'D

Toothpaste

Resol-

(Rs 10/-)

Cool

(Cool - B)

hb

Colgate

rush

Price

Customer

[Large empty blue oval]

and

of

¥-e⇒Rss③t¥¥

¥? !4¥ >cos-1. Rsl. /

.-ernal

Cidgate Toothpaste

Cidgate

Toothpaste
my
(own mfg.)
oral B

: 25 Rs.

: of Rs

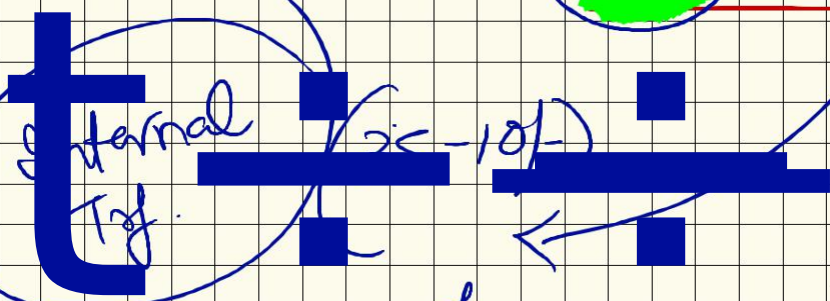
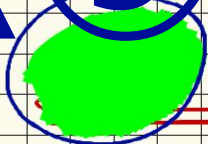
④

+

oral B

: 10/- Rs.

: a 5 R 9



= 25/-
=

÷¥

MAXI TP
 Max TP
 MP = Rs

Think from pet of view
 Think from pt. of view
 of of Transference.
 (8)

① MP = Rs. ~~30~~

② VSC = ~~Beat~~
 018

ex Subst[@]
 SYLT 421
 (R) @ 32/-

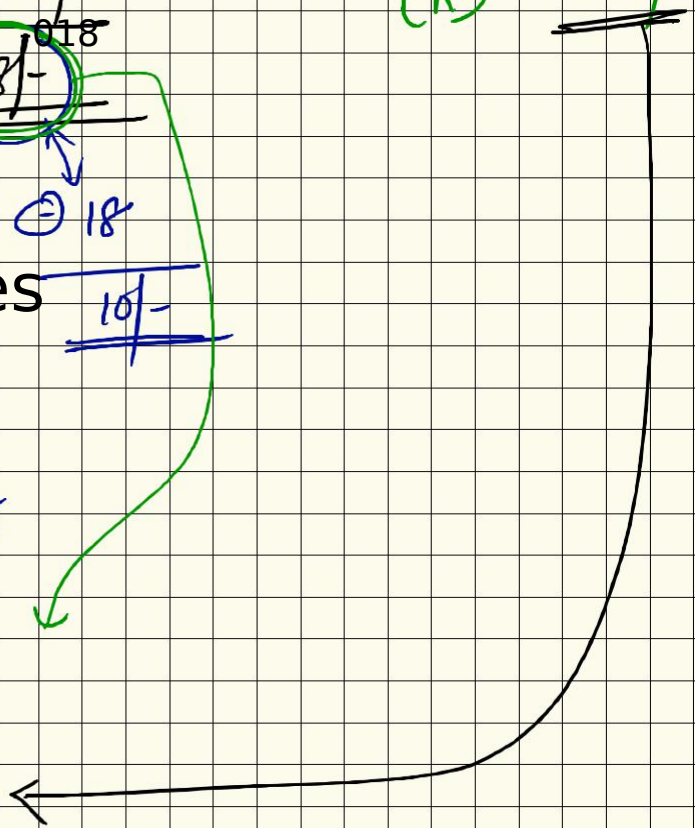
28/-

① 18

MP MP : 30
 VC : ~~EE~~
 10/-

Cent's = 10/-

Div B 28
 (+) Alt, 5
33/-



Max TP =

MP Max TP =

-0 vsc : 30^z

⊖ vsc : 2

28

Mp

ⓐ

syst

32

ⓐ

Value (Pct R)

: 32

ⓑ (Attorn)

Cs)

⊖ Alterin Subst Cost V

= (5)₃₂

Comparable Value

of R P

27

ⓐ vsc : 30^{CD}

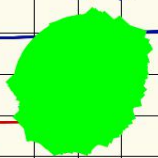
⊖ vsc (2)

at 28 Alt

- or ⓐ Subst. V: 3(3)

⊖ Alt'n C: (5)

whichever is lower



when Nsc substitut and Alteratio
 Learnings from Case 1 (Fully Spare)

(when is there a substitute and Alteration cost)

Minimum there.

Maximum

Minimum
 TP

Maximum
 TP

Total Variable
 Cost

earnings from case - CFYYae.TL
 Substitute

① Variable Selling
 Variable Selling
 cost
 x x x
 xxx

① VSC
 x x x

② Value
 Alteration
 Alteration
 cost
 x x x
 xxx



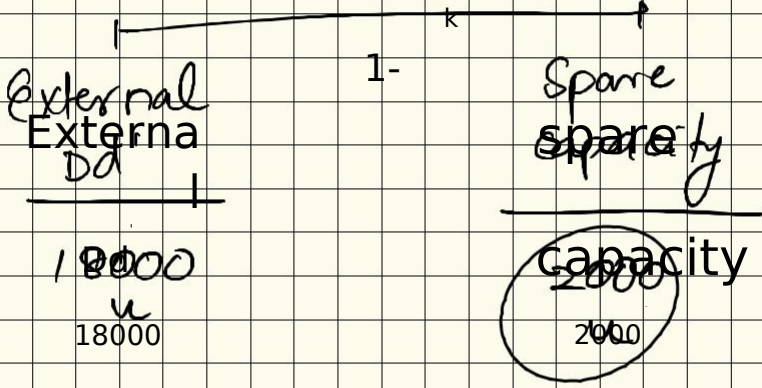
at
 whichever is
 lower

lower

Case 9 Bdm Capacity = 20,000 uCP

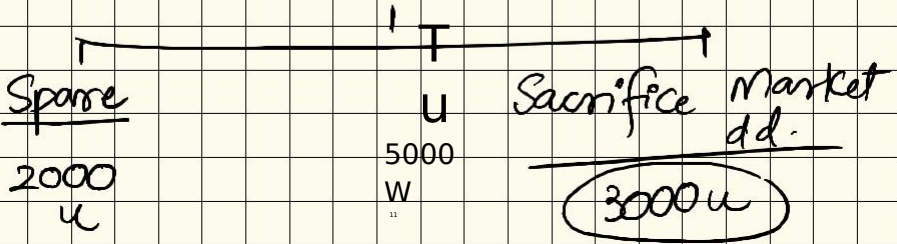
(Part Occupied - Part spare)
 C Past Occupie Past

Pdn
 Pdn
 Capacity = spare
 Capacity = 20000u
 20000k



Units Read by
 T fee Div (B)

Tfe Div (B)
 e 5000u



Spared

I

Sacrifice rang.n

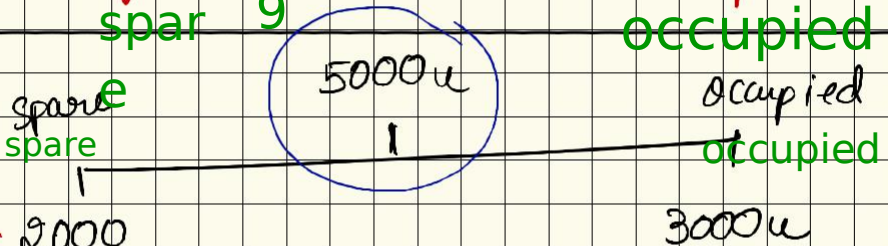
et

2000
u

3000C

Min. TP: (Think from pt. of view of Transferor?)
 of Transferor?

Recovery of cost #
 Recover of cost #
 y spare spar 9
 of MP gmp
 occupied
 occupied



2000 u
 @ (TVC - VSC)
 @ (five use)
 @ (28 pu)

3000 u
 @ (MP - VSC)
 @ (30 - 2) use)
 @ (28 pu)

Rs. 36,000 / - +
 (2000 x 18)

Rs. 84,000
 (3000 x 28)

$\text{¥}6,000 + \frac{\text{Rs. } 120,000}{(2000 \times 18)} = \text{Min } \frac{\text{Rs. } 84,000}{(3000 \times 28)}$

8)

Rs 120,000

←

Yin

Rs 29

p^a

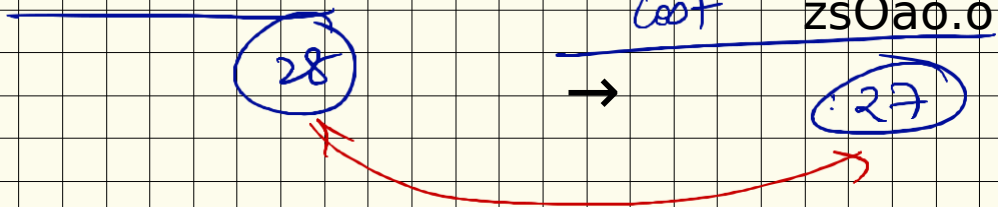
Maxi = (Think from Tee
Think from Tee
pt of view)

MP 30

MP 30

Substitute Value : 32

Substitute Value : 32
Cost : 28



which is
lower

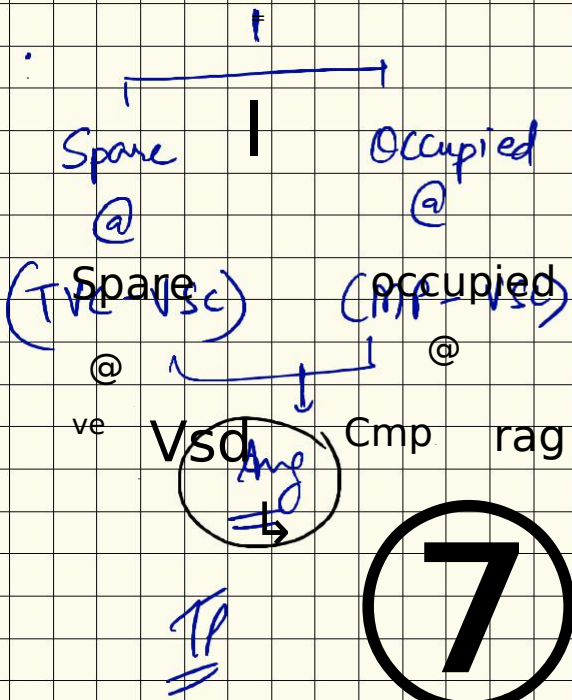
Max
MP
me



Learning from Case 2:

Min TP
Min TP

Max P
Max P



MP
Mp
 $\ominus V_{sc}$
xxx
 $\oplus U \pm$

a substitute value
sublim
e Cost
Ait

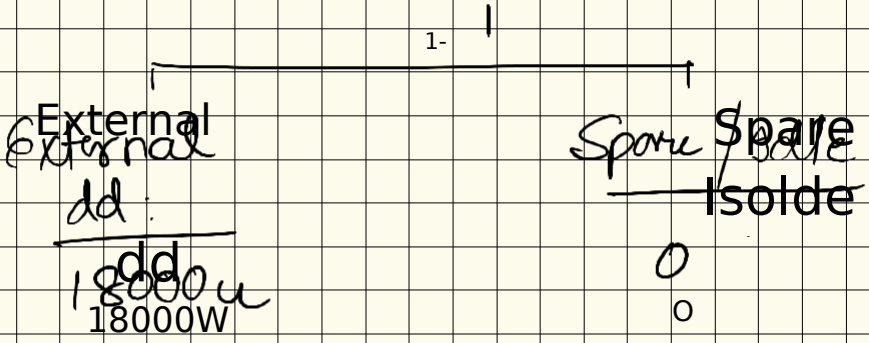
whichever ~~x~~ is
Lower

whichever tower is

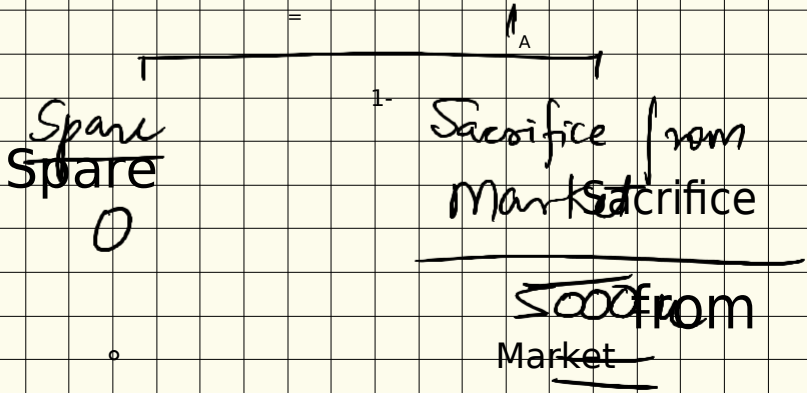
¥

Casted fully occupied?
 Case 3: (fully occupied)

Prod Capacity: 18000
 u



Unit Regal
 Units Reqd : 5000u



sooth

=

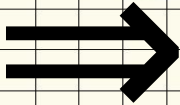
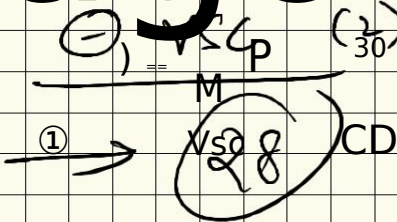
HLⁱⁿ
Min

P
IP
↓

Think from
PI. of view
of (time)
ftp.nkqtfimeo
' Tms

(fully OC ied)

fagot



Max NP = CT_{free} (T_{free})

on	30	East	30
⊖ VSC (2)		⊖ Allh cost (5)	
<hr/>		<hr/>	
28		27	
<hr/>		<hr/>	

← *

Lower
£ ÷ ¥

~~27~~
~~*~~

Transfer Pricing DEAD LOCK

(where internal market is NOT-possible)

NOT Possible)

TP

Deadlock

TP Deadlock
¥3

(TT MM)

Mei

Mer

Tu Tera
Tu Tera

n Mein

a Mera

d



④

3M

30

Thor

Tojorn
=

Subst
Subst

IE

Learning

Learnings

f

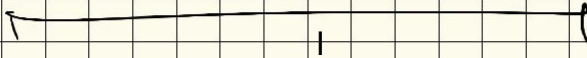
C-3

C-3

(f Fully Occupied)

)

A



Min $\frac{AP}{n}$

Max $\frac{MP}{M}$

=

$(MP - VSC)_{RSD}$

$(MP - VSC)_{Cmp rsc}$

Note: However, if (substitute value)

Nie: However, if (substrate value)

is lower than $(MP - VSC)$;

is lower than Cmp use then it is a case of Transfer

the it is a case of Pricing Transfer Deadlock

and Internal Tof is not Pricing Deadlock possible.

and

Datura

Try

is

no
t

..

Genned poi

- i) Variable Selling Cost will not be incurred/charged in cases of interplant Transfer.
- ii) The Transfer division will not pay anything for Transfer of Substitute Value - Alter'n
- iii) The Transfer division will not pay anything beyond Prime cost, we will always calculate Substitute Value Capacity, External cost & Spare Capacity.

iii) to the transferor Division
we will always
Primas

facie,

calculate

Production Capacity

External old

& Spare Capacity

so that we can figure out
 so that it we can figure out
 whether it is a case of
 whether it is a case of

- a) Fully Spare (or)
- a) Full Spare @
- b) fully occupied (or)
- b) full occupied @
- c) Part Spare / Part Occupied

(iv) e) when we are calculating span t ;

ID Min TP = Think from the
 when Eg
 View point of
 Min TP - Think from the
 Transferor

Max TP = view point of
 Think from the
 Transferor
 Transferee.

Max TP = Think from the

view point of
Transferee

v)

Learning from (fully spare)

€

Min
TP

Max
TP

Total VC

MP

⊖ VSC

⊖ VSC

Subst. value

⊖ Alt'n Cost

Lower

(TVC - VSC)

! ÷ @ed ⇒

! Opportunity Cost

$$\begin{array}{r} 30 \\ - 2 \\ \hline 28 \end{array}$$

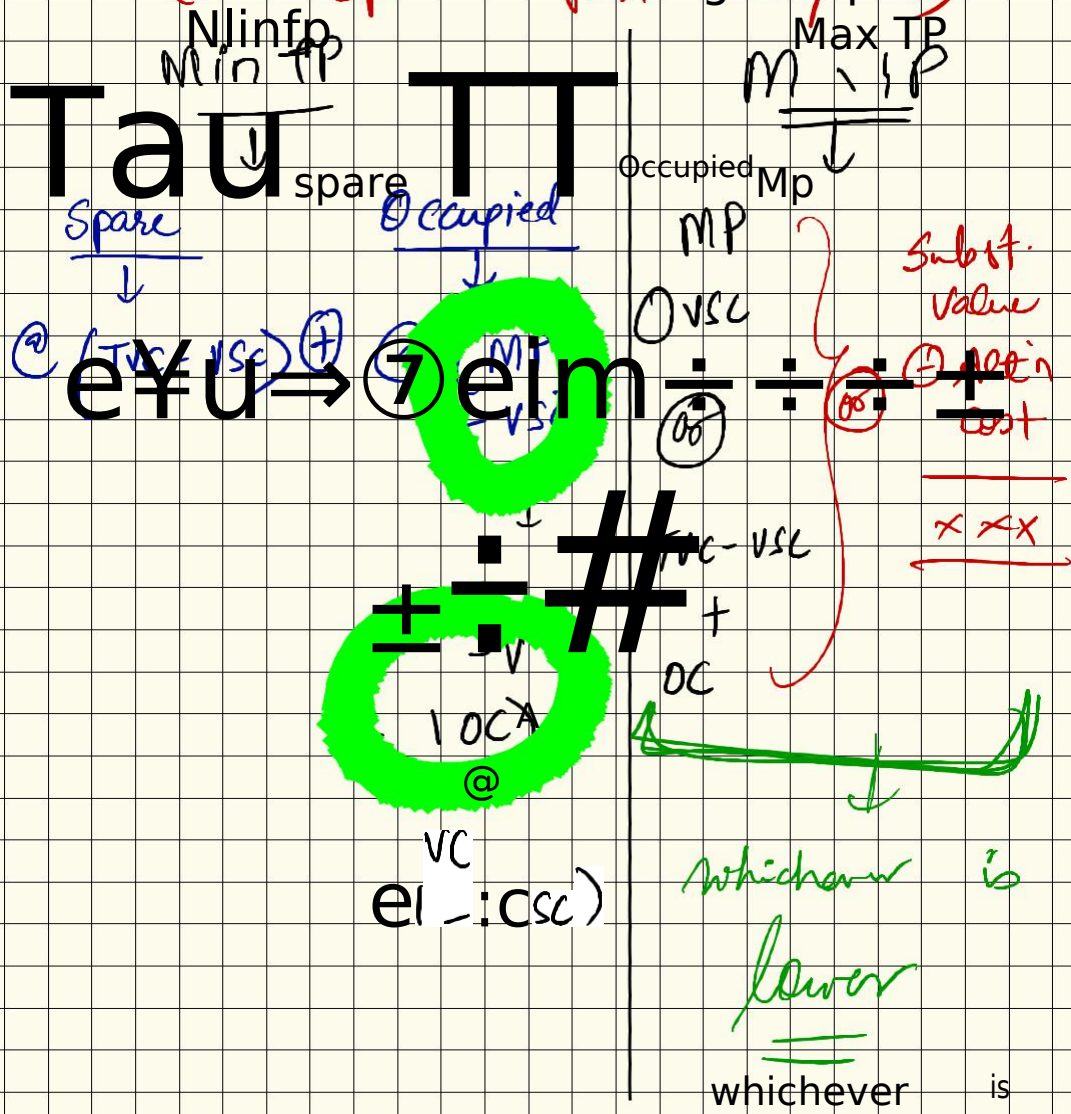
⊖ (20 - 2) = 18

⊖ 10
+ 28
=

(30 - 20 = 10) • E
(30 - 20 - 10)

Learning from C_a
 Learnings from C_e

(Part Spare; Part Occupied)



lower

=

Example

Example

CA SK
=

Teaching (Coaching Classes)

opportunity cost #

(value of Benefit alone)

Benefit foregone

foregone >

SCY → y
KPMGI from
10L

kfml

Learn ^{ng} ~~Learn~~ ^m C3

Fully Occupied

Mind TP
Mind

Max TP
Maxed

$$(MP - V_{rsc})$$

MP

or
or

$$(MP - V_{rsc})$$

Cmp

$$(TV_{sc} - V_{sc})$$

$$+ OC)$$

$$+ OC)$$

How :

El

(Re-

Solve)
Sobre)



Watsapp

8192014
Watsapp

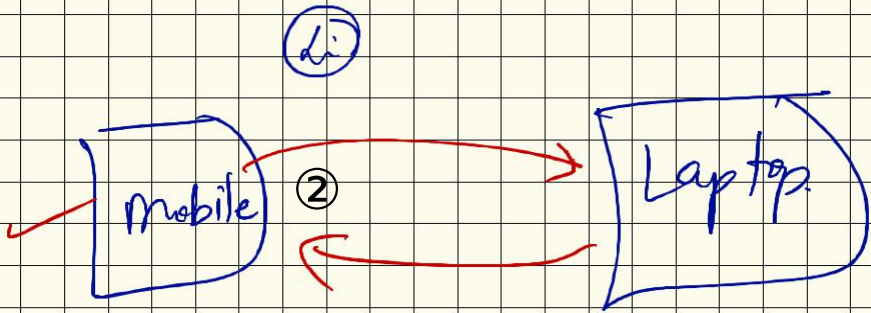
9 981920147373

=

Crypto (form of currency.)

i) Barter System

9) Barter system Goods ← goods



Laptop

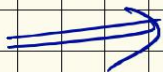
~~Pen~~

Lapto

p

p④

→



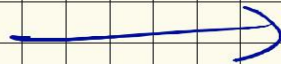
Gold

Gold

Mobile

Mobile

→



log

log

Lu



log

Going.

Luze

f

U4 →

Peggin

Hard Currency

USA

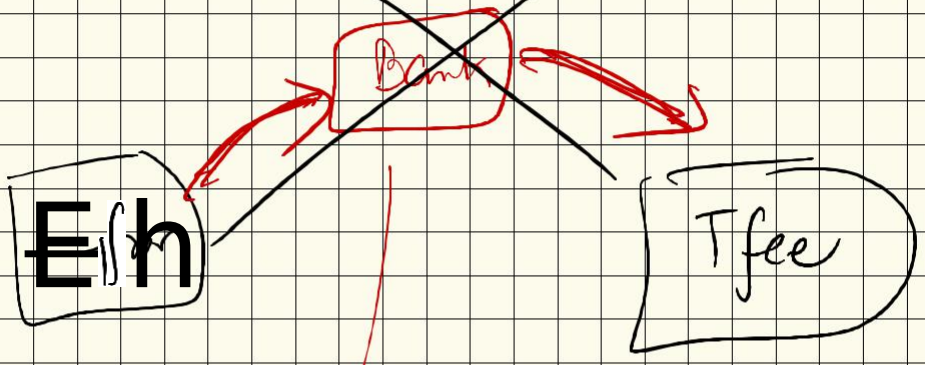
→ Gold

Gold

Money
4
Bank

Gold
Reserve

~~Net Banking~~
~~Net ankiy~~



Venue
resp

100

pet

input

Glomming

Curr

\$40K

Tesla 7\$

1%

Direct connect

Bil coins
\$40L

Stk

aEs SEE Costing

* ÷

Bif-coin ÷ Mr. XY2

Concept of limiting
t of limiting
g

factor.
facto

Human wants are Un-limited
and Resources are limited.

In Human business scenario,
and where Resources like (RM, lab hr.)
In Such business scenario etc.)
h

where Resources like (RM, lab hr.)
of limiting factor is used etc. ?
are limited ; then Concept
d

of demotivator factor is used -
g

Example: 1

corset

optimised Ltd

Case 1
Pdt A

Pdt B

Optimised Ltd.

Pdt: A
(100)

Pdt: B
(100)

-0 SP
EP

200
200

200
200

⊖ VC
RM cost
RM cost

100

40

100

40

form @
(Rs 10/Rm)
m

4km @
Rs 10/Rm
Rs 70/Rm

Labour
Labour

Rs 10 (RM)

110

40

110

Cent :// Nf

60

50

Cent :// Nf

60

50

Rank
Rank

I

II

I

I

Case 2
 (Raw - Material is limited to **YAH** hr.)

Optimised Ltd.	Prod A (1u) Ctu)	Prod B (1u) Fu)
Sp	200	200
Rmc	too	40
Rmc	100	40
	(10RM @ Rs 10/pm)	(4RM @ Rs 4/pm)
	Rsl 01pm	Rs 4km)
Lab Cost	40	110
Lab Cost	40	110
Count's	60	50
x 10 units (100RM / 10RM)	10u	25
(1A = 10RM) C' 7M		(100RM / 4RM)
Total Cost in ₹	600 Rs.	1250 Rs.
Rank	II	I

(IA

10km

1250 Rs

total

)
Couth

600A

Rank **am**_i

|

Limiting factor: (Raw material)

Factor limiting

	A	B
Cont'n p.u.	60	50
Cont'n Raw material p.u.	10Rm	4Rm
Req'd p.u. material	6	4pm
Cont'n p.u. seg 'd	12 (Rm)	12.5
	II	I

From now on, if any Resource is limited; the RANKING of products should be based on From now on, any Resource

is limited ; the RANKING of
m f e

Products should be based on
Concept of Limiting factor !
t r

Limitin

factor

Conti p

gimiting
formula

factor :

Conti p u.

$\frac{f_i}{\sum f}$ p u^u

(Raw -
Material)

(Labour
hours)

(Machine
hours)
etc.

Etc: -

⋮

02 :
82°

Div A C Profit
Div. A (Profit)

	X	Y	Z
SP	48	46	44
VC	33	24	28

Conti p.u	15	22	16
ag. tn	15	22	16
lab. hrs	3	4	2
p.u	3		2

External demand	800	500	300
	u	u	u

External demand	④ hours		
	80%	50g	300W

Div B unit
300 units
of
§ of
Substitute
gwoq.a

Rs. 45/-

Rs 44

→ Limited Labour

→ Limited

- a) 6200h
- b) 3800h
- c) 5600h

y
b)

a) 62004

38005

c) 56004

Solution:

Sn limiting factor questions;
 9n limiting factor questions;

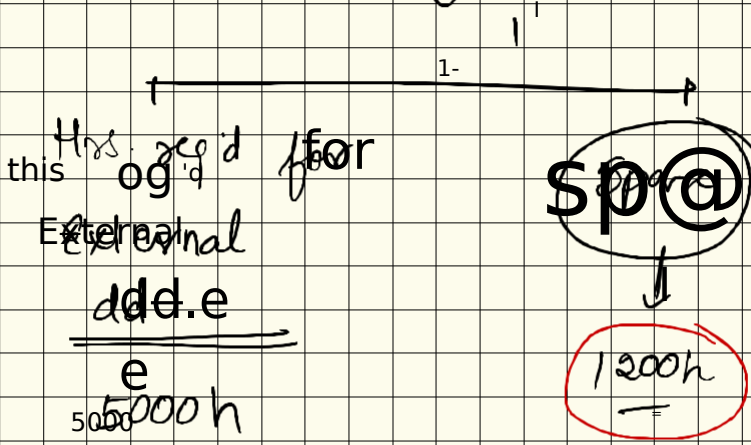
always satisfy the external demand first and check the total hours taken for external demand first and check the total hours taken for external demand

	<u>X</u>	<u>Y</u>	<u>Z</u>
Hours reqd p.u.	3	<u>4</u>	2
thfdq.ee	3		2
x External	800	500	300
x External	u	500	300
<hr/>			
Total Demand	890		
Total hrs	2400	+ 2000	+ 600
g	240g	+ 200g	+ 60g
	=	5000 hours	
	<u>4</u>		

5000inc
h

Cases: Case 1: (Fully span fully spare)

Prod Capacity: 6200h



aaaimm.ms? h: g#-ospafems-
 k00hqofs- Units reqd by Internal Dir

Units reqd by Internal Dir

@ 4 hrs/uc
 300 units Cy)
 1200 hours

Add hours reqd =

⊖ Spare hours =

1200 hours
10

Since this is ⊖ we know it is FULLY-SPARE.

,eaofhi;

+ ÷ @swing

-0

Fully

SPARE

Cal of Ty Price
Cal of Tof Price

MAXI

Mind fully

Min TP (fully spare) Max TP

Recovery of
Reaney of

Variable cost

A

@ Rs. 24/-

@ Rs. ~~24~~1

=

MP amp 46 4

@

Substitute
value

substitute

@ 45/-

= 44

45



TP

=

$$24 - 45$$

TP

Raff 24-40

ii)

Casa
Case 2:

Pd

380 hours

Pdn Capacity: 3800 hours

1-1

External
External
demand

d

5000 hrs
5000hm

Available 3800 hours
Available 3800ho

Based on above availability; total
hours to be allocated to products will

Based on above availability total
be; availabilit

✓ we will now use the concept
of limiting factor ...
✓ We will use the conce

of

demotini
g

facto
r

pt

Statement of Ranking for Lo

	X	Y	Z
Cent'n Gen't 'n	15	22	16
lab. hrs pm lab. hrs	3h	4h	2h
Cent'n pu / Cost hrs	5	5.5	8
Rank Lab hrs	III	II	I
Rank	7	I	

Based on availability of 3800L
 Based on availability of 3800h
 our allocation based on Rankin
 our allocation based on Rankin
 will be as :

Hours available follows 3800h

① Used by Z (300 x 2) : 600h
 Hour Available 3800h

② Use Remaining = 3200h
 by Z (300 x 2) 600h

③ Used by Y (500 x 4) : 2000h

3200h

Remaining

1200h

④ Used by X (4 hrs/u) : 4 hrs
 2000h

Balance

1200L

Conclusion : 4h AM hrs available

X : 300 ; Y : 500 ; Z : 300

Conclusion

On

3800

hrs

available

$$X = 320 ; Y = 502 ; 2 \text{ } 300W$$

Units road
Units = reqd.

~~300~~ of Y

300 u of Y

~~X~~ $\times 4h/4$

U
1200 hours : Required.
1200 hours

Require
d
Pdt. X to be sacrificed.
Pdt X to be sacrificed : 1200 hrs.

1200M€

@ cost lost : Rs 5/hr.

@ cost lost : Rs 51hm

Total Cost lost by pdt X = Rs. 6000/-
lost by pdt X = Rs. 6000/-

Total

Cost
of

lost

of

x

=

Rs 60000
t

$\text{Min TP} = \frac{\text{Variable cost of unit}}{\text{TP (300 u of Y)}}$

Variable cost of unit to be tfg. $(308 \times 24) : 7200$
 $(300 \times 24) : 7200$

Cont's lost of Unit tho t Sacrificed. $\frac{6000}{6000}$

Rs. $\frac{7200}{1200}$
 Rs.

$\frac{\text{Total No. of Unit}}{\text{Total V unit}} : \frac{300}{300}$

Min TP = Rs. 44/-

Min TP

=

==R

441

S

Max
Max \nearrow P

MP 46

MP : 46

•
(00)
sufficient
Value : 45

↓ as

45 - |

Range = $\frac{\text{Min}}{44} - \text{Max}$
45

Ray

Min

ma

x

44

4

5

=

Part 3

Pdn Capacity:

y
5600 hours

External
External
old
5000 hrs
5000hm

Spare
Spain
600 hours
600 hours

Units reqd
Unite (300 u x 4h) (300 u - 4)
= 1200h
zoon -4)

Spare
600h

(300 u | 4h)
1200W
A

Sacrifice
600h
Sacrifice

spar
e

of x (3rd rank)

600k

6⑧
|
of | Czrdoank
)

Min TP

Vanish^o
Variable

Cost

Yim
Unit

to be (y) :

Tfd.

$$\left(\begin{matrix} 300 \text{ u} \\ 300 \text{ u} \end{matrix} \times \begin{matrix} 24/4 \\ 24/4 \end{matrix} \right)$$

720
2200

④ Cost loss

Sacrificed £ pdt
Sacrifice pdt

+ 3000
t 3000

$$d \times \left(\begin{matrix} 600 \text{ h} \\ 600 \text{ h} \end{matrix} \times \begin{matrix} 5/h \\ 4h \end{matrix} \right)$$

Rs. 10,200

Unit to be
Tfd.

& 30,200

÷ unit to be
Min TP =

34 300W
p.u.

$$\text{Min } T_{fd} \text{ TP} = 34 \text{ pu}$$

=

Max TP :

MFP

46

sub **tn** **te** ^{FS}

max TP

45

45

Max

TP

45

=

Learnings: $(\text{in case of Lof of d.f. sums})$
 $\frac{\text{TP}}{\text{TP}}$

1) External demand satisfied + Full spare capacity
 demand demand capacity

Min TP : Variable cost of
 Unit to be transferred
 Unit to be transferred

Max TFP : MPP or

Substitute Value ↓

Substitut Make
e |

2) External demand also

2) External demand also

Min

not satisfied.

MP : Variable cost of

TP : Variable cost of

Unit transferred

④ cost to transferred

⊕

Cost's lost / opportunity cost

of unit sacrificed opportunity cost

of unit sacrifice

Max TP : MP or

Subst. Value ↓

Max

P

Mp

or



lko
t

Value

3) External demand Satisfied

3) External demand satisfied

Some spare Capacity

Min TP

Variable cost of Unit to be

to transferred

(+)

Cont'n lost / opportunity

(4)

of unit sacrificed

Max TP of unit sacrifice

Subst Value ↓

Max

P

Mp

or



Shot

Value

Q Solution Dina

Q3

Est. demand

Div A

Scow

Soon

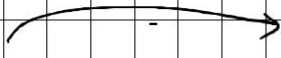
Est. demand : $\frac{800u}{x}$

500u

300u

sp	500	450	400
① VC SP	540	450	400
⊖ Cont VC	4400	3500	3900
i. Cont's Labour p.u. hosp .u.	60 3	100	90 3
÷ Labour Cont hrs p.u.	3 20	④ 25	3 30
h Cont / hr	20	25	30
r Rank	III	II	I

Div. A



Div B

④ ($\frac{300u}{y}$)

Case i) : 4400
ii) 5900_{Case}

③

④

Substitute @
B. 430/-

;)took⁸ISubstitute@

ID 5900W

B. 410
1

i) Hours Required for External Demand.

	Hours Required	for External Demand.
--	----------------	----------------------

$$X : 800 \text{ u} \times 3 = 2400$$

$$Y : 500 \text{ u} \times 4 = 2000$$

UX

$$Z : \frac{300}{300} \text{ u} \times 3 = 900$$

$$\begin{array}{r} 900 \\ 900 \\ \hline \end{array}$$

5300 hours

$$\textcircled{3} 5300 \text{ hours}$$

ii
ii)

Date: Case i Pdn

Pdn Capacity

tf

44,00h

4400 hrs

External
~~External~~
demand

Spare
~~Spare~~

53300 hrs

m

we will now make the
 We will now make the
 Statement of Hours Utilisation
~~state~~ ~~Utilisation~~
 based on ~~0~~ Hours Ranking Utilisation
 in previous Statements. ~~availed~~
~~availed~~

based on

Rankin

g

in

previous

Statements

s

Hours Available

Hours Available

4400

~~4400~~ hrs
his

$$\ominus \text{ Used by pdt. Z : } 900 \text{ hrs}$$

Use by pd
d (200 x 3) (1st R)
900hm

$$(500 \times 3) \text{ (1st R) Remaining : } 3500 \text{ hrs.}$$

$$\oplus \text{ Used by pdt. Y : } 2000 \text{ hrs}$$

3500hm

2nd R (500 x 4)

Renny

$$\oplus \text{ Use by pdt Y : } 500 \text{ hrs}$$

Remaining

1500 hrs

2nd R (500 x 4)

$$\div = X \text{ (Hrs/unit Remains 'x') : } 3 \text{ hrs}$$

150

0

J

X

500 u

Conclusion: C ~~www.t~~ 4400 hrs available.

$$\frac{X}{500 \text{ u}} \text{ Use by } 500 \text{ u} \times \leq 30500 \text{ u}$$

Condig
n

In

-
440 hrs
0

available

Ee

too

Foon

Units see by
Units req'd by BIV B

$$\left(\begin{matrix} 300 \\ 300 \end{matrix} \text{ u of } 4 \times \text{hh/w} \right)$$
$$= \frac{1200 \text{ hours}}{1200 \text{ hours}}$$

since No spare capacity |
Since NO spare capacity;
we will sacrifice Pat. X

→ Cont's lost of X : 24000 RE

$$\left(\begin{matrix} 1200 \text{ h} \\ 1200 \text{ h} \end{matrix} \times \begin{matrix} 20/h \\ 20/h \end{matrix} \right)$$

Min TP :

Variable Cost of unit = Rs 10500
 to be t/d. (4 Ey)
 (300 ut/d @ 350)

① opportunity cost : Rs. 24000
 ④ opportunity cost : Rs 24000
 of sacrificed pdt.

o sacrificed pd
 f No. of units

Rs. 1
 300
 tsar
 430 p.u.

mP/
 swhtvae_B

TP = No of chef = 300
 (450/430) ↓ = 430/- p.u.

Mgp, (car)

=

(4501430) t

429 pu

Cast: 590012ms
Case 2:
5900 hours
e:

↓
A
Pdn Capacity : 5900 hours
Pdn 5900 hour
s
Capacity

External Demand
External

Spare
Spare
600hr.

Demand
5300 hrs.
5300hm 600hm

=

Units Rgd
Units Rgd
4h

$$(300 \times 600 \times 4h)$$

120⁰ hours
1200 hours
↓
↑

Spare
Spare

600
600_h

Sacrific
Sacrific
Reed from Part X

600 h

@ 20/h

Rs. 12000

Contribution-
lost

Mi TP
Min TP

VC of unit to
be of unit to
be betfd

Rs 105,000

(300 u @ 250)

④ Couth foot
Couth foot

Rs 12,000
12,000

Rs 117,000
117,000

+ 300W
300 u

Mien TP : # 390/-
Min TP

max 7 P: mp/ sub
x ==

mp/T
450/430

Q4:

Solution

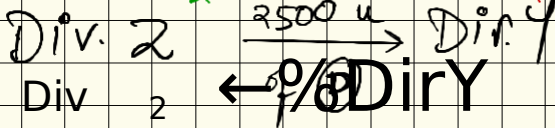
DDTVZZ

		2800	2500	2300	1600
	S. P.	A	B	C	D
		E	E	E	F
		150	146	140	130
				0	
①	V. C	130	100	90	85
②	V. C	130	100	90	85
Cont. hrs pu =		20	46	50	45
÷ Lab. hrs p.u. =		3	4	2	3

Cont. / Lab. hr = 6.67 - $F_{ptl} \cdot 5$ - 2800 asit

Rank
Rank

IV ¥ IV I II 9



Substitute Value
 @ Substitute Rs. value

of

Eps .

1257

Time $\frac{\text{Reed}}{\text{Reed}}$ to $\frac{\text{to}}{\text{to}}$ satisfy $\frac{\text{satisfy}}{\text{satisfy}}$

External Ddt^h

at

A : $(3) \times 2800 = 8400$

B : $4 \times 2500 = 10000$

C : $2 \times 2300 = 4600$

D : $\frac{2}{3} \times 1600 = 1066.67$
 $\frac{2}{3} \times 1600 = 1066.67$

27,800 hrs
¥800 hr
 t

Pdn @ Capacity 20,000 hr. iExt.dd

20,000 hrs

Ext. Ddt^h
3
 27,800 hrs
 SPARE

SPARE
0

27,800h
m

⑧

St of hour	Utilisation
St of hours	Utilisation

Hours available	20,000
Hours available	20,000

① - Use d by C	(4600)
Use d by C	(4600)

Remaining	15,400
-----------	--------

② - Use d by B	(4800)
Use d by B	(4800)

Remaining	10,600
-----------	--------

③ - Used by B	10,000
Used by B	10,000

Remaining for A	600
-----------------	-----

Eg # A

3h **8**

34200

Based on above calculations;
 Based on above calculations;

A: 200	conclusion B: 2500	C: 2300	D: 1600
u	u	u	u
B:		C:	D:
			1600

A: 200W

2501

2200

u

Units paid of B

$$\begin{array}{r}
 2500 \text{ units} \\
 \times 2500 \text{ unit fee} \\
 \times 3 \text{ hrs / u} \\
 \hline
 7500 \text{ hours} \\
 = 7500 \text{ hours}
 \end{array}$$

Sacrifice of hours
Sacrifice of hours

	+	
600k 600 h of A	+	6900h of B
* 6067 x 6.67		x 11.5
Rs Rs. 4000	+	79,350
Total Cont's Total Cent's lost	=	Rs 88,350

Mien TP
~~Min = TP~~
 Variable Cost of units

Variable Cost of units
 Hd (\$ as 000) : 212,50
 tjd (D: 2500 x 85) : 212,500

④ contribution lost : 83,350
 Contribution lost : 83,350

of pdt (A & B)
 of Pd cAang

t

295,850

295,85

$\frac{p}{o}$

÷

Rs

118,340

Rs

Steps to be followed in

Steps to be followed in

Ops of Lof + Top.

1) Hours Required to satisfy
Hours Required to Satisfy

External Demand
 d

2) Pdn Capacity
Pdn Capacity

External
External

1-

Spare
Spare
Capacity
=

dd

Capacity

3) Statement of hours utilisation
Statement of hour utilisation
based on OF Rankings.

4) Unit to be sacrificed and

Units to be sacrificed and

5) Calculate Unit CONTRIBUTION SACRIFICED for
Sacrificed units.

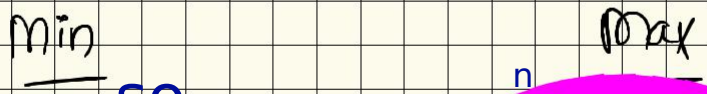
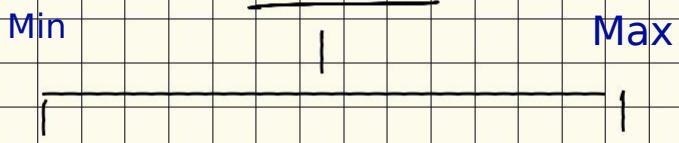
§ Calculate CONTRIBUTION LOST for

Sacrifice Units
d

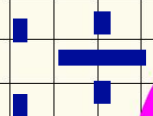
A
Q1: (units)
Full spare

Case

Case 1: Fully Spare



SO
 $(TVC - VSC)$



$MP - VSC$
 or
 $vc + oc/cl$



Compare

Subst. Value

⊖ Alth Cost

Compeau

xxx

(LOWER)



	Sub	St	Value
my			
⑦	teeth		cost

xx
x



CLOINED

Cased
Case 2

Min

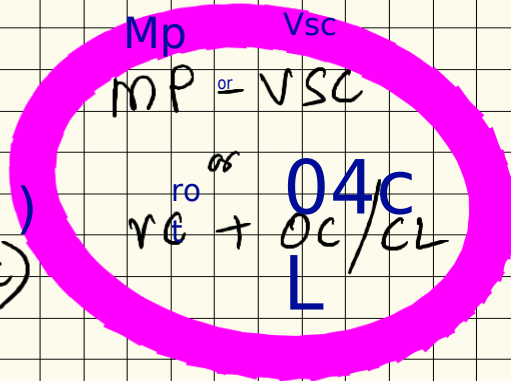
Part occupied a Part
Part occupied & Part
Spy Spare

Max

Min

Max

$$\begin{array}{c}
 \xrightarrow{1-} \\
 \text{Spare} \quad \text{Occupied} \\
 \text{Spare} \quad \text{Occupied} \\
 \text{(Tvc)} \quad \text{Cmp use)} \\
 \text{(VSD - VSC)} + \text{(MP - VSC)}
 \end{array}$$



Af

Compare
cost

Subst. Value

⊖	Subst	Value
⊕	Acth	Cost

xxx
(LOWER)

CLOWER)

Cases

ully
of
filly

in T

(M_P, V_{MindP})

VSD

ax T

(M_P, M_{MaxiP})

V_{VSC}

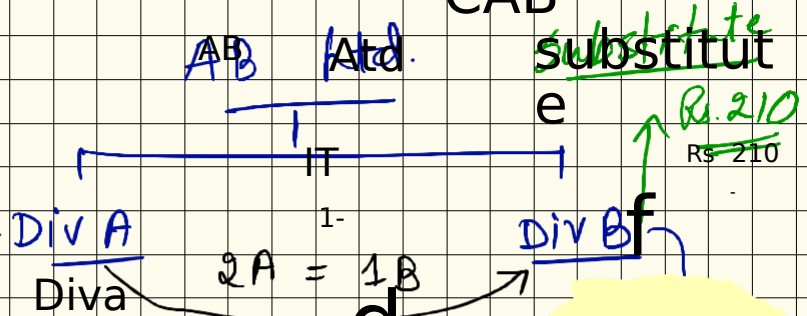
)

80113

Q5

Solution:

(AB Ltd.)
CAB



substitutes
Rs. 210
Rs. 210

Capacity: 20,000
Capacity: 20,000

(TP: 200) ⇒

VC: 190

↑ TP: 220

FC: 20

(CMP)

Totality: Rs. 400,000

FC (20,000 x 20)

19000% -
Totality

40,000 1120

R - Rs. 300,000
p: 20

(excl. C) 2 Comp

VC: 700
FC: 200
Comp Komp

(200 x 10,000)

FC (Totality): 2,000,000

Cap. ↑ 40,000

ext. 220
int. 210

FC ↑ 100,000

Inv. Rs. 1,000,000 @ cost of capital 12%



re
9W



Rs 1500,000

D

Div A Rents out
 Div B Rents out & bugs camp from off
 Div B bugs Camp from off

Di v A Div unit

Div. A

Div. B (1 unit)

Rental Income

Rs 300,000

⊖ VC

(700)

⊖ comp from/s

(900)

Total Profit : 2100,000

profit : 2100,000

(300,000 + 1800,000)

(300,000)

BCI

Rs from 210

XD

1809000

Cent h

380

Cent h of unit

380

TWNE

10,000 u

Total of Cent h

Rs 10,00

3800,000

⊖ Total

Rs (300,000)

Cost

Rs 1800,000

(B)

④
 (ii) Diva sells 0/5 @ 210
 Div A sells 0/5 @ 210
 Div B Pur from 0/5 @ 210

220 from

Div A
 Di A

Div B
 Di B

SP : 220

Profit same as

sp : 220

profit (i) same as

⊖

VC : 190

past Rs. 1800,000
 = Rs. 1800,00

VC Cont'n : 190

x 20,000 Comp.

VC Cont'n : 30
 Total 20,000 : Com 600,000

Div 4 = Rs. 20,000
 (A+B) =

⊖ FC : Rs. (40,000)
 (A)

Div (20,000 Rs + 20,0900
 (180,000) 0
 CATB)

Toth : Rs. 600,000

⊖ NP : Rs. (200,000)
 (A)

(20,000-

Fogg

180,000)

NP Rs 200,00
 0

AD



Div A increase the Capacity

Div. A increase the Capacity from Div A @ 210 par from Div A @ 210

④
⊕

Div A
Div. A
-11

External

Stand

SP : 220
220

210
210

⊕ VC : (1100)

(1100)

Conth pu : 30

20

x pm of unit : 20,000

20,000
20,000

x chn 9% : 20,000
600,000

+ 400,000

Total Cost : 600,000

1,000,000

409,000

Total Interest =

Rs. 500,000
Rs. 1,000,000
Rs. 180,000

(4L + 1L)

(15L x 12%)

NP(A)
FC

Rs. 220,000
500

Cult ID

+ Rs. 180,000

¥1154127

21,200,000

①
⊕
Artes

NPCA)
⑦ N_{PCB}

Rs 320,000
t Bilfogoo
0

B. 21,29000

=

Recomm

Recommendation:
it

choose option 3 as it results
choose option 3 as it results

into Maximum profit s for
into Maximum profit s for

the Company Maximum profit for
the Company Maximum profit for

the

company

Q1

Solution

Solution

3 Division

S

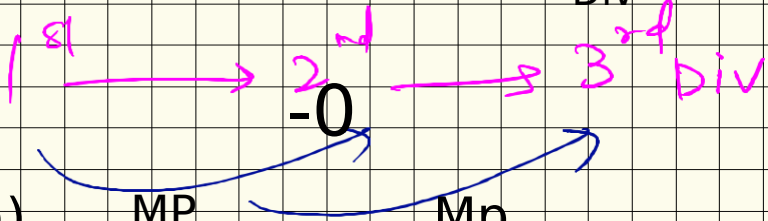
3 Divisions :

181

2nd

3rd

Div



- a)
- a)
- b)

MP
MP
shared

MP
MP
Couth relative to

b) shared Couth relative to Variable Cost.

Edible Oil

Particulars	Harvesting Oil Seeds	Oil milk	marketing Marketing
Quantity	2000 kg	1000 kg	500 cans
Quantity	2000, 1000 kg		
→ VC p.u.	2.5	7.5	8.75

→ VC p.ve	Rot	to	
	(2000 × 2.5)	(1000 × 10)	(500 × 8.75)
		10,000	1875
→ Total VC	5,000		1875

→ Fcpa	5	7.5	8.75
Total Fc	10,000	750	4375

MP
Total
|

12.5/kg 62.5/kg 150/each

(2000 XD

6000×7.55

GOOX8.A

T

MP

laosfl

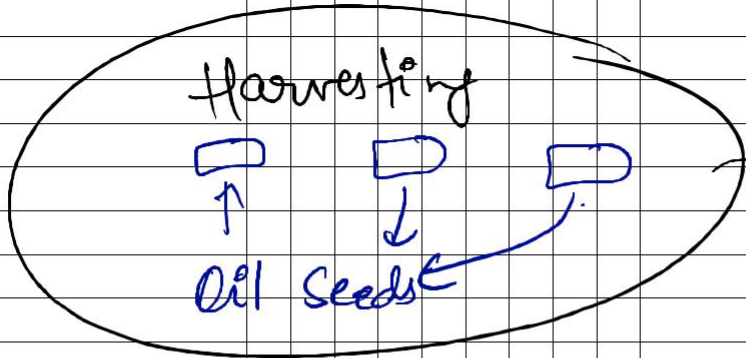
62.511g

150/1

g

7

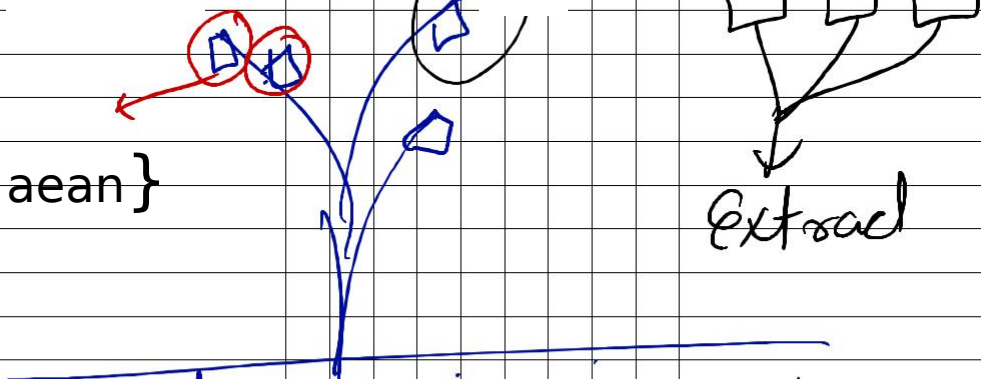
←



Oil mill
attracts adp

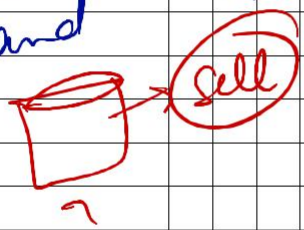
Oil mill
attracts adp

A large, stylized text element consisting of a colon, a division sign, a circled number 8, and the letters 'QrZ'. An arrow points from the 'Z' to the text 'Oil mill attracts adp'.

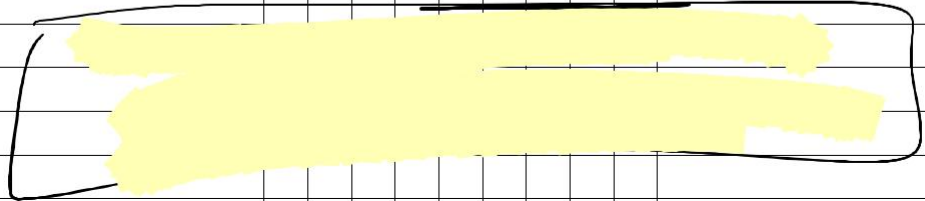


aean }

Land



Marketing Div.



1

fDJ

1) To calculate Overall
company profitability

In such situations; we will
calculate the total sales of
the Div'n that sells externally
and take Costs of all the
divisions in the company.

Divisions

into company

g. Overall Company Profit

i) Overall Company Profit.

Sales Value : (mktg. emkto)
 (500C @ Rs 150/an) : REI
 500C @ Rs 1501am : **75,000**

○ Variable cost : 16,875
 (500 Variable cost @ 33.75)

~~67000~~ - 16,875 = 58125

○ Fixed cost : (21875)
 (10,000 + 2000 + 11875) : 58125

175,000 - Profit : Re. 36,250
 (of fixed cost) : (21875)
 (19000-)

$$1700 + 43 \times 2$$

= Net Profit : Rs 36,250
₹ t

C of
of compan
y'

$\left(\begin{array}{c} r \\ TP \end{array} \right) = Vc \quad t \quad couth$

Share fourth

Rs 58,125

3. Divi
3 Div'n

₹gfde

on the basis of variable cost
one

H

OM

M

$$\begin{array}{r} 58125 \times 500 \\ 58125 \times 50000 \\ \hline 16875 \end{array}$$

$$\begin{array}{r} 58125 \times 10,000 \\ 58125 \times 10000 \\ \hline 16875 \end{array}$$

$$\begin{array}{r} 58125 \times 187 \\ 58125 \times 1875 \\ \hline 16875 \end{array}$$

Foor

34,444*

64580

$$\begin{array}{r} 17,222 \\ 17,2220 \end{array}$$

$$\begin{array}{r} 34,444 \\ 34,944 \end{array}$$

$$\begin{array}{r} 64580 \\ 64580 \end{array}$$

Cont'n share of respective Div'n

Conti share

a- of respective Div 'm

TP Calculations

Tp calculation

i) Harvesting
Si

) Harvestin + Cont'n

$$TP^g = 5000_{VC} + 17,222_{cont'n}$$

$$= \frac{92,000}{5000} \times 22,222$$

(Sale price to Internal Div'n.)

ii) Oil - Mill Div'n

(Sale price to Internal Div'n.)
TP = VC_{internal} + VC_{DoIn}

$$TP = 10,000 + 34,444 + 22,222$$

$$= \frac{66,666}{1000} \times 1000$$

66,666 vn

T
p

=

Vc

t cent 's t

|

Cvc)

■ $\frac{0}{100}a$ to,000.134,444-122,222

a f
1566,66=61

T

iii b)

Market Price

Profitability

		H	OM	A	M
gp					
fp		H	OM		M
⊖	NC	25000	62500		75000
-0	NC	5000	10000		1875
TPC					
FC			25000		62500
TPC		10,000	2000		1225
		500494	1877		T
NF FC		10,000	20,7500		6250
		4377			T
Nf		10,000	2900		6250
		or			it

Preferences of IP Method

H : MP

on : ~~SC~~ ^{irt} VC

M : Mp

Q7: Soluin: (GOTT Module 4n) ^{an}
~~07~~ Sahih

Cornflakes
Cornflakes

T fee
A

T fee ③

Cornf
 mfs
 Div
 Production
 (Production)

Pakaging
 Pakaging
 Div's
 Cartons
 Mp

⊙ + P*
 ↓
 Find pot

MP
 5000 : 77,000
 8000 : 95,000
 189€00

-o=#E±

MP
 5000 : 20,000
 8000 : 30,000
 qi

Cost of Mfg
 5000 : 75,000
 8000 : 80,000

Cost
 5000 : 120,000
 8000 : 180,000

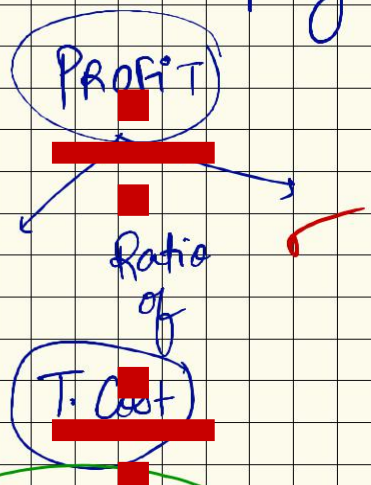
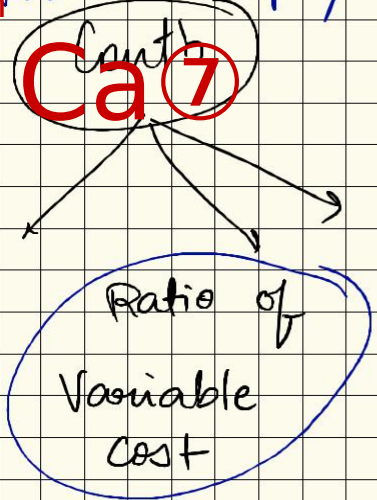
?
 7,5000
 80,000

Shared
 Shared
 relative to
 V. Cost
 V. Cost

Shared Profit
 Shared Profit
 relative to
 cost
 (4)

Overall Company
 Overall Company

Overall Company



$$TP = SP = VC + \text{Conth}$$

Variable cost

$$TP = SP = \text{Cost} + \text{Profit}$$

TC (4)



TP =sp= Vct couth
:

= sp = Cost -1

Unfi
t

$$SP = VC + FC + NP$$

Cost

$$SP = VC + \text{Cost}$$

$$SP = TC + NP$$

$$SP = \frac{VC}{Tct} + NP$$

$$SP = 100$$

$$SP = VC + C$$

$$SP = TC + NP$$

$$VSP = 60$$

$$sp = 60 + 40$$

$$= 70 + NP$$

$$\text{Cost} = 40$$

$$= 100$$

$$sp = (60 + 40)$$

$$\ominus FC = 10$$

$$= 100$$

$$NP = 30$$

10

① FC

GOT@

¥0

i) statement of Profitability

particular	5000	8000
Particulars	<u>5000</u>	<u>8000</u>
Sales	200,000	300,000
Sales	200,000	300,000
① Marketing Div. Cost	75,000	80,000
: B		
② Production Div. Cost	120,000	180,000
Div cost		
Net Profit	<u>5000</u>	<u>40,000</u>
	800000	

ii) **Dish of Profit relative to cost**

5000Um

80002

5000 units

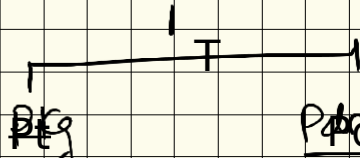
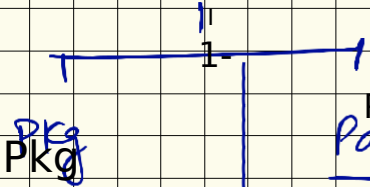
8000 units

NP Rs 5,00

NP Rs 40,000

NP : Rs. 5,000

NP : Rs. 40,000



$$5000 \times 75000 = 195000$$

$$5000 \times 120000 = 600000$$

$$5000 \times 12000 = 60000$$

$$600000 - 60000 = 540000$$

$$= \text{Rs } 1923$$

$$= \text{Rs } 3077$$

$$40,000 \times 80,000 = 3,200,000$$

$$40,000 \times 80,000 = 3,200,000$$

$$3,200,000 - 260,000 = 2,940,000$$

260,0004902

$$= \text{Rs } 12,307 : \text{Rs } 27693$$

5000 × 7 5001

i) calculation of TP = Total Cost of NP by Packaging

$$TP = 75000 + 1923$$

$$= 76,923 \quad (\text{for } 5000 \text{ units})$$

= 76,923 for 5000
(units)

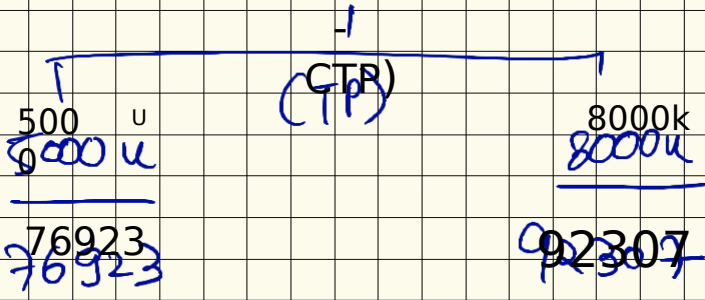
For 8000 unit

$$\text{For TP} = \frac{8000 \text{ units}}{\text{To}} + M$$

$$\text{TP} = 80,000 + 12,307$$

$$= 80,000 + 12,307$$

$$= \text{Rs. } 92,307$$



$$\text{Tp} = \text{B. Koss}$$
$$\text{TP} = \text{Rs. } 15.38$$

pu.
?

$$\text{Rs } 11.54$$
$$\text{Rs. } 11.54$$

ID
ii) TP as per Market price
method

For 500 units MP of Transferor (pkg. Dept) is 9500/-

8000 units is 9500/- (pkg Dept)
770001800 Rs

¥

it is 9500g

Profitability of Both Divis
Profitability of Both Divis
 under Shared profit set to Cost
 Particulars "Shared plan rel. to Total"

Particulars	Pkg	Plan	Total
4 5000 u Sale		200,000	276,923
Sales cost	(76,923)	200,000	276,923
⊖ Cost Top Cost	(75,000)	(120,000)	(195,000)
⊖ T.P. Cost	-	(76,923)	(76,923)
Nop			5000
N.o.p.	1923	3077	5000
8000g 8000 u	670074%	9,0%	94950
Sales	00	3,0000	
⊖ Cost Sales	1923092307.77	(80,000)	(80,000)
⊖ Cost	80,00	(80,000)	(80,000)
N.o.p.	12307	27693	40,000

€ Ct3

OTP Cost

Nop

1230
7

2769
3

40,000

Profitability @

MP method
MP method

@

	Packg	Pdn Pdn	Total Total
<p>40:60 go.co</p> <p>50000</p> <p>Sales 9</p> <p>50000</p> <p>⊖ Cost</p> <p>⊕ cost</p> <p>⊖ TPC</p> <p>① TPC</p>	<p>Pad'g</p> <p>77000</p> <p>75000</p> <p>-</p> <p>2000</p> <p>2000</p> <p>95</p> <p>80000</p> <p>-</p> <p>1500</p>	<p>20,000</p> <p>200,000</p> <p>77000</p> <p>3000</p> <p>3000</p> <p>30,000</p> <p>45000</p> <p>35000</p> <p>25000</p>	<p>1.6T</p> <p>5000</p> <p>5000</p> <p>80000</p> <p>2.25T</p> <p>49,000</p>

38.5%

no

fat

Npas40,00

30:70

T@q77000

¥: : : :gt

0

II
TP (shared profit)

5000
5000 u
76921
76923
5000

Profit
800£.
8000
u

92307
8000

= 15.38

= 11.54

9 2307500

92000
5000
= 15.4

95000
8000
= 11.875

ello8

|41550

>

⑦

pplgift

5001
PKg Dept

8000
1

$$\begin{array}{r} 9000 \text{ u} \\ \text{Foo} \\ \hline 7500 \\ 5000 \end{array} = 15 \text{ per}$$

t: ÷ 0

$$\begin{array}{r} 8000 \text{ u} \\ \hline 8000 \\ 8000 \end{array} = 10 \text{ per}$$

5

Red'n in cost by
Red cost

33% ↓ a (5/15)

Prdn Dep. by SA

$$\begin{array}{r} 12000 \\ \hline \text{Sopantk} \\ p \\ = 24 \end{array}$$

$$\begin{array}{r} 18000 \\ \hline 8000 \\ = 22.5 \end{array} \quad \begin{array}{r} 415 \\ () \end{array}$$

Few

Red'n in cost by $\left(\frac{6.25}{1.5} \right) \left(\frac{1.5}{24} \right)$

24

\ominus

22 of

Reda in cost by
t

Q1

Tycoon Ltd.

RM

(1000B x 100m/B)

(500,000 mtrs.)

1000B x 100m/B

Textile

Div.

50% (O/S)

950,000

0

250,000 mtrs

@

TP

= Rs 6/mt

(Jan)

Process

House

30%

150,000 mtrs

(1st June to 20)

A

Rs 5.6/mt

(1st June to 20)

150,000

.100 mtr

= 1500 BR

SP: 825/B

SP: 725/B

1000B

! ? = ! moo 725/13

5/Br

RM: 3/m

VC: 2/1

F: 12000

Rs

VC SOE ^{Cost}

OS

@ TP:
⊕ VC 80 DE #
F @ TP @, 00 Rs.

④

FC

10,00ps

Solution: @ 80% (Jan '20)

	Textile	Dept	Process	House
Sales	24L	(2.5) [redacted]	Sales: 120375	(1500 x 82.5)
⊖ Rmc	12L	(1103) x 6	Rm	1203754500 x 82.5
⊖ VC	4.8L	(4.2 x 1.2)	VC	1.2 (1500 x 80/B)
⊖ TPC	—	—	ve	CisooxSQL
⊖ FC	4.08L	(42 x 102)	FC	10 p)

Net Profit: 3,08,000

TPC NP: 1.1 Rm

308,000

Total: 425,500

NP: 11,750

	Textile	Dept	Process	House
Sales	30L	(2.5 + 1.5 + 1) x 6	1812.500	(725 @ (150 + 100))
⊖ Rmc	15L	(5L x 3)	1500.000	(1.5 + 1) x 6
⊖ VC	15L	(5 x 1.2)	1500.000	(2500 x 8)
⊖ TPC	—	(543)	200.000	(8) D
⊖ FC	4.08L	(5 x 12)	100.000	20,000
	488,000/-		12,500 =	fzsoox

-0 Tpo

logout

to

)

Fe

①

;5tD^{4.12}₁₂₅₀₋

4880001

500,50

AE

June

a

@ 80%

⑦

T

a

PI

Ext

@ Ext
@ 5.6

@ 5.6

x 250,000
x 250,000

PH
@ 6

x 150,000

x 150,000

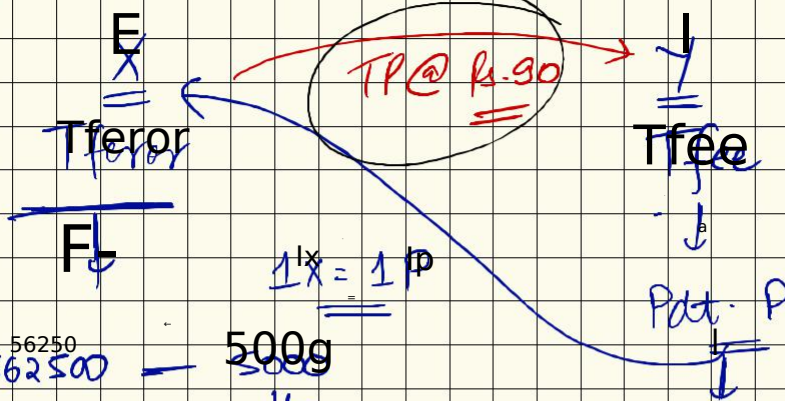
omens:

June @ 10%

$$as \frac{1 \text{ Ext}}{65} \div \div \times \frac{2 \text{ Ext}}{6} 2.52$$

Q1

the



RS 56250
 562500 — 500g
 1406,2500
 333750 — 95%00

$\frac{1x}{1p}$

Price ↓ Dd' ↑

Tatts
 Cost : 1406,250
 @ In Tooo a
 5625 @ ↑ 5000u

7)

Profitability

↓

(EX)
(EX)

<u>Unit Sold</u>	<u>Revenue @ TP</u>	<u>VC</u>	<u>NP</u>
5,000	450,000	562,500	(112,500)
10,000	900,000	900,000	0
15,000	1,350,000	1,237,500	112,500
20,000	1,800,000	1,575,000	225,000
25,000	2,250,000	1,912,500	337,500
20,000	1,800,000	1,575,000	225,000
29,000	2,250,000	1,912,500	337,500
30,000	2,700,000	2,250,000	450,000
			0

Profitability of Div Y

Units	Sales	mfg C	TPC	Profit
5,000	1968750 1785750	1406250 168750	450,000 900,00	112500 39750
10,000	2985000	1687500	900,000	397500
15,000	3712500	1968750	1350,000	539750
5,000		2280,00	180,000	120,00W
20,000	4170,000	2280,000	1800,000	120,000
0				
15,000	4500,000	2531250	2250,000	(281250)
25,000	4500,000			(28/25)
20,000	4500,000			(0990,000)
30,000	4522500	2812500	2970,000	
25,000	4522500	2812500	270,00	(999000)
3,0000				J

Profitability of Div Y
 PsofitahiliyqDivYhn.5salesmcfy@8Prop.e

ii)

@ x' stghestnft
 @ x's stghestnft
 X: 20000
 X: 30000
 X: 30,00
 X: 30,000

Gy

450,000
~~450,000~~
 (99,000)
749
 (549,000)

@ 999000) st Profit⁺
 7: 10,00
 x: 10,000
 x: 10,000
 x: 10,000

39750
~~397500~~
 0
~~0397520~~
397500



Profitability St @ #qtl

Profitability St @ Output level

U	S	me	get	Profi
U	S	M/C	Cost	t
5000 5000	196875 1968750	1406250	562500	0
to 000 10,000	2185000	1687500	900,000	397500
15000	377500 377500	1968750 1968750	1237500 1237500	506250 506250
1500	985000	1687500	1575000	345000
20000	4170000	2250000	1575000	345000
30,0045250	4170000	als 000	1575000	56250
5000	4500000	2531250	1912500	56250
25000	4500000	2531250	1912500	56250
30000	4522500	2812500	2250000	(540000)
2500	45000	2812500	2250000	(540000)

28150 2250

... is not based on profit
 Centre, T.P. will be @ Cost (54900)

: Div x is not based an

profi
t

Centre , Top will be @ cost to
Div X

G1 Basics of TP

Q2, 3, 4 : Basics of TP (Units)
Concept of TP (Units) ff

Q2, 3, 4 : Concept of TP + of

(Key factors)
key factor

Q5 : TP with DM

Q6, 7, 8 : Methods of TP
TP WITH DM

Q6, 7, 8 : Methods of TP
Shared Cont'n in sel'n

Shared VC Cont's won see
(First Cal. Overall Profit
to NC of the company)
C First Cal Overall Profit

Shared NP in sel'n to
of the P in sel'n to
costs conf ay)

Shared NP in sel'n to
MP costs set to

Mp

=

09, 910: Profitability ©

Q9, Q10: Profitability @
Different demand
Different demand
level
levels.

Q11..

CEO of
the Co.

+ Summary of
the Qn

~~mt~~ ÷ ~~a~~
~~China~~
Components

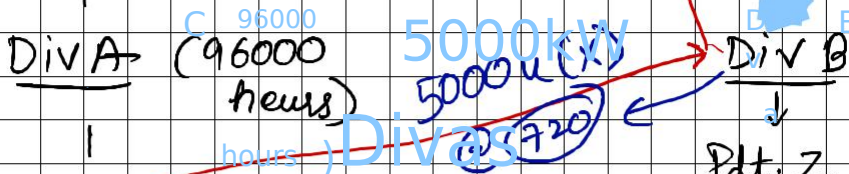
@
DIVA
✓

H

Divya

Solution

fits



	X (4h)	Y (1h)
SP	800	160
SP	800	160
VC	320	80
VC	320	80
DM	300	60

SP	1450
Imf. C	800
VC (@ 40%)	400
DM	120

...	180	20
...	4h	1h
...	4h	1h

Cont'n	130
Foh	5000
Foh (B)	5000

...	20
...	20
...	15000 u
...	Unlimited

pm

5's#

Foh (A) 302 30L

prog unlimited

D

Div B Imports that Reg
Div B Imports that Reg

as

DAPEF

a) Div A Profitability

We know that Div A has a maximum of 96000 hours maximum of 96000 hours.

Accordingly, Rank will be given as y.

per cent/hour and the products will be made based on Rankin

Statement of Allocation of hours.

	Hours Available	: 96,000 h
⊖	Hours Available (15,000 u @ 4h)	: 60,000 h
⊕	Used by	60,000 h
	Hours Remaining	: 36,000 h
⊕	9,000 units of (y)	: 1h
	Hours Remaining	: 36,000 h
	Total units of	= 36,000 units

ths unit of 1h

f

Total units of Y ¥ 36,000 units
0

Profitability St

Particulars	X	Y	Z
SP	800	160	14
⊖ VC	800	160	14
Contribution	0	0	0
Contribution per unit	0	0	0
× No. of units sold	180	20	130
Total Contribution	0	0	0
Fixed Costs	300,000	300,000	500,000
Total Profit	0	0	0

4

9

2

180 15000

20 36000

130 5000

15000 2700,000

36000 720,000

5000 650,000

2700,000 3420,000

300,000

500,000

3420,000 +

650,000



① fixed

390,00

500

on

UM, 00 t

156,00

E

570,000

ii) Div B will pm from Div A
 Div. B will pm from Div. A
 @ Rs. 800 GD (TA) : 96000h

Div. A : 96000 hrs

$\frac{x}{15000}$ u
 Eat
 Ext. dd.

$\frac{x}{5000}$ d
 Ext. dd.

① $\frac{y}{36000}$ u

Statement of Hours Allocation

Hours Available : 96000
 Hours Available : 96000 h

Used by X

$(15000 + 5000) \times 4 \text{ h/u} = 80000$
 $(15000 + 5000) \text{ h/u} = 80,000 \text{ h}$

Remaining : 16000 h

Remaining : 16000 h
 this per unit = 1 h/u

units pm y wi = 16000 units ✓

chief of y

1600
0

Profitability

St
\$1

f

Dir
Div

AaB
A & B

X

Y

Z

Couth	150	20
Cont'n pm p.u.	180	20
INPU go fu	20,000 20,000 u	16000W 16000 u

Couth	130
Cont'n	130
Cost cost of Attn	80
Allen	(X)
CD	

	3600,000 (+)	320,000
	3600,000 (-)	320,000

= Total Cont'n	3930,000
Count in FC	(300,000)
FC	(30,0900)
	920,000

	50
x No of u	5000
XWNO fi	5000
T. cont'n	250,000

Overall NP : 670,000/-

FC	50,000
T couth	-
Net loss	250,000
	250,000
FC	50,000

Overa (920,000 - 250,000) = 670,000

No

||

M

(9m

ooo

=



N

g

o

t

250,000

iii) TP by Div. A for X = 20 7201

)

Div A
Div A

Div B
Di B

$$\frac{X}{1} = \frac{Y}{1}$$

Pdt. T₂

Pdt 2

Ext
Ext 180

gut
gut 100

Ext
Et 20

Cardh : 130

south 130

⊕ Disc : 80

⊖ Act'n : (80)

Disc cost 80

90

Cardh p.u. : 180

$$(180 - 80)$$

20

x Cop. cost : 15000

5000

16000

Cardh Att'n : (130)

p.u. cost

x No. of units : 5000

$$\text{Cardh's} = 2700,000 + 500,000 + 320,000$$

$$\text{KNOWg Total Cardh's} = 1500 + 5000 = 3520,000$$

650,000

$$\text{Cont's.} \ominus \text{FC} = 2700,000 + 500,000 + 320,000$$

⊖ FC : 500,000

$$\text{Total NP(A)} = 520,000 + 3520,000$$

x No. of units NP B : 5000 = 150,000

$$\text{NP(A+B)} = 520,000 + 150,000 = 650,000 - 500,000$$

B

- 16000

FC

-3000,000

FC

Nfc,

a

529000

Nfp

150,000

NPCATB

.52%000

t

150,00

B.

670,000

)

Recommendation

Recommendation:

we will Select option ③ as

it results is a option ③ as
Balanced

it results in a Balanced Div A
profitability

profitability for both Div A
for

& Div B.

=====

Q13:

Solution Maryanne htd
Solution: Maryanne htd.

Div A
(pdt. 2)

Dirty
400000

Div A

Trf

Div B

qdt

target

Profit

External

t

250,09000

pcyg

Capacity: 100,000 u

too ↓ Ou

hey

Shld

Capacity

Ent old: 70,000 u

SP 53800 70,000W

VC: 1600

250000

Cost p.u. 900

Conf 900 pin

Fixed Oh: 40,000,000 + 13800,000

fixed Oh: 1200,000 @ 1380000

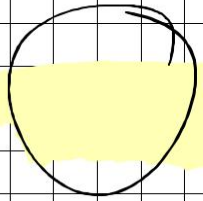
In 11.5%

1380,000

£

120900,000

S @



ht. nosy.

138000

D

To Cal to Cal (TP) to meet Target Profit

Puff

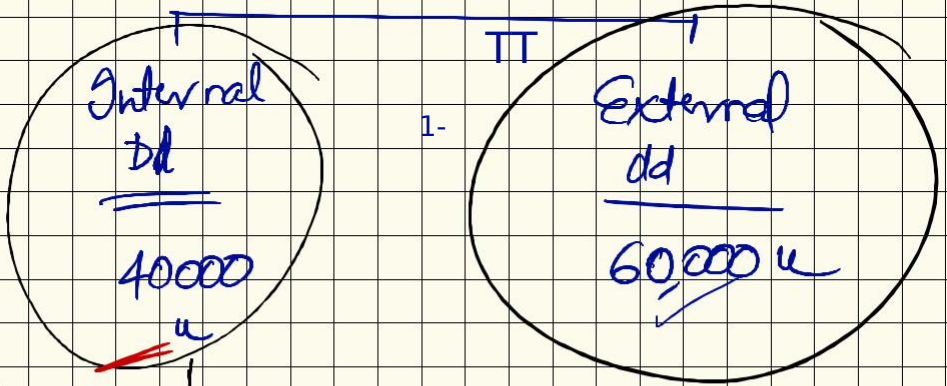
Div A

Div A

Pdn capacity
Pdn capacity

100,000
units

1111



1

??

TP

satisfy

Ensure: Target Profit: 260,000

asked

d

40

Reverse Strategy

④ → Fixed chd: 538,0900 (firm)
 Regd M: 250,00,000 (firm)

⑦ Fixed chd: 538,09,000 (firm)

Total : 78800,00
 Contin : 78800,000

⑧ V.C. : 16,00,00,000 (100,000)
 #ategya: Regd M. asgoo.000 (firm)
 m.3

Total Sales : 238800,000

earne

External (firm)

1500,00,000 (firm)

safe

(2500 x 100,000)

1500,09000

→ Bal. fig
 B¥pg
 (To be recovered from Internal dd.)

88800,000

fro ÷ old:)
 m 100000

TP = 88800,000
 vs. 2220 Intense

(250×6900)

40,0002

XP

Ps

2220

|

=

ii)

Cal of MTP

Dir AF Pdn Capacity

100,000 units

External dd
Extended
70,000

Spare
Spare
Capacity
70,000 u

30,000W

Internal dept

9 mty de

pt

Spare
@
VC

40,000 occupied
@
M/P

(30,000 Spare

(10,000 occupied

= 480,000 @ 4,000

250,000 @

M/P TP

525

VC

MP

(20,000 × 25
0)

(30,000 × 1600)

↑ 48900,00 -- 1250,0900 - 0

ugoo

Mff

gig

Servia OMI P

Service Oriented TP

External fees consulting internal

1500/D/T

IT DIV (Team)

External fees consulting Day Team Internal Divisions

Fees: -0	SP	4500	250
		4500	250
	Profit:	2700	150
		1800	100

$\text{COS} = \frac{1800}{2700} = 66.7\%$
 $\text{Profit} = 2700 \times 180\% = 4860$

(Textile Div)
 (2 Team)

80%
 1440
 1440

20%
 360
 360

ant T
 VSC = 200
 Vsc : 200
 (Not possible)

chargeab

le
)

D) TP to Textile Div. if
 TP to Textiles Div. if
 IT Div is **fully** occupied.

IT Div in **fully**
 I.T. Div'n **fully**
 occupied

If Textile Div'n needs 22
 IT Teams time TP will

be @ MEP - XSE

$450 - 200$

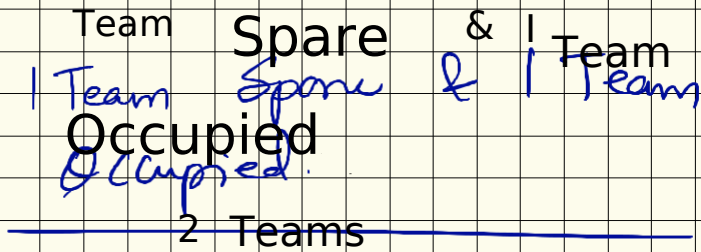
Min TP/ = $4300 / 0 / T$

-14--4300/0/-1

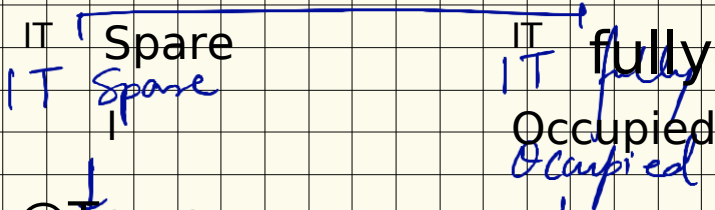
Max TP
 Max op

$\checkmark =$

ID



2 Teams
 | 1-



TP

@Tov.c

TP =

@T.V.C.

tP@tmp

TP @ mp

⊖ V.S.C.

⊖ VSC

$$\frac{(1440 - 200)}{2}$$

$$\frac{(450 - 20)}{2}$$

200)

$$1240 + 1200$$

$$1240 - 14300$$

2

min TP =
 min

$$\frac{2770}{0.17} - 1$$

Max TP =

$$\frac{(450 - 20)}{2} = 4300 / \text{cost}$$

Mahn

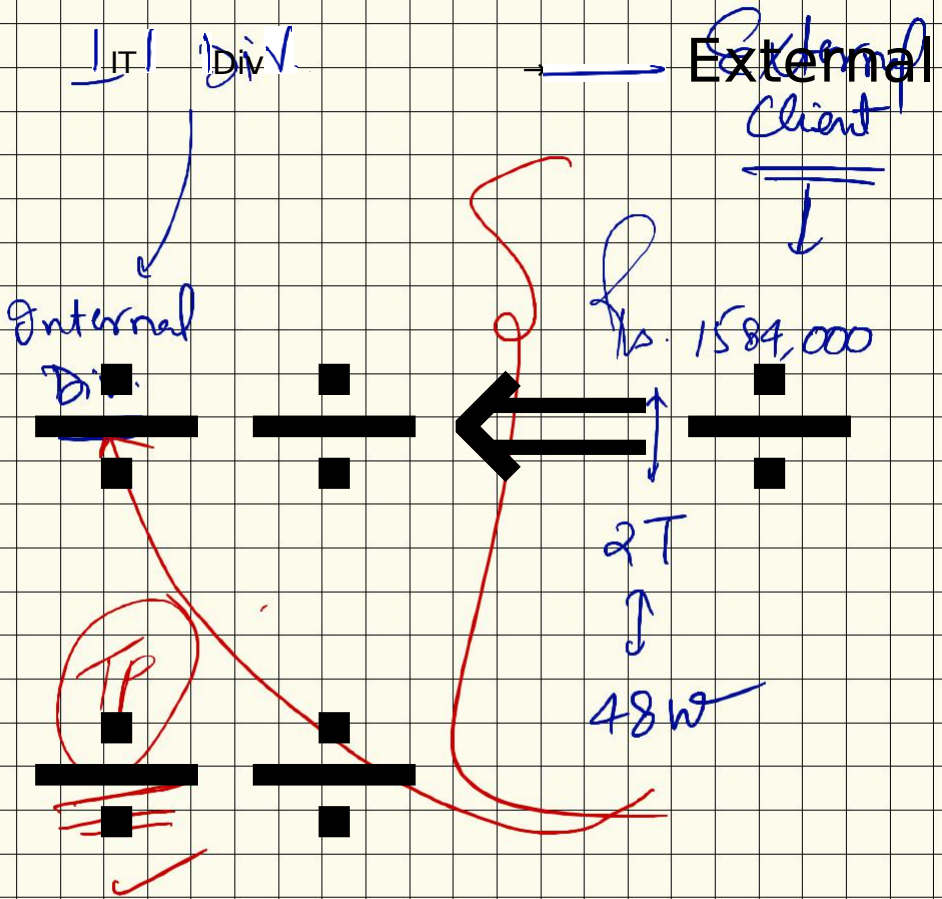
Gpo

20

) 4300194

T

(ii)



Calculation of fees per consulting per team:

Total fee said for 48w / 2T = 1584000
 Total fee said for 1584,000

$\frac{48W}{No. of Weeks}$

$\frac{1584000}{48W}$

day

Weeks/Week

$\frac{1584000}{48} = 33000/Week$

$\frac{33000}{5D}$

$\frac{33000}{5} = 6600/Day$

$\frac{6600}{3T} = 2200/D/T$

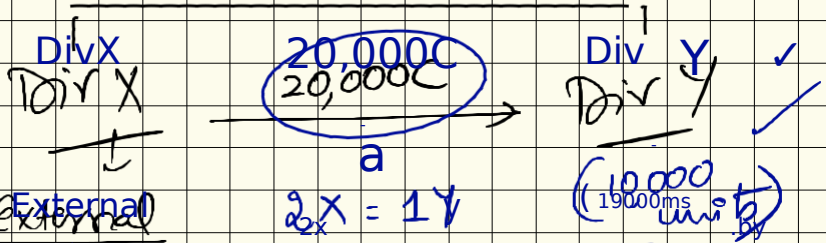
TP = 3100/D/T

3300101.⑦€

200
Vsc / DIT
TP : /T

Q
 Capacity
 35000

XY Company



-350%

0

VC: 157

VC: 33at

Cond's: 1413
 pu

APC 1350,00
 APC : (2/2NB)

FC_m : 20,62,000
 FC : 2062,000

FC : 1350,00
 FC

Profit - Centric

Profit

Centric



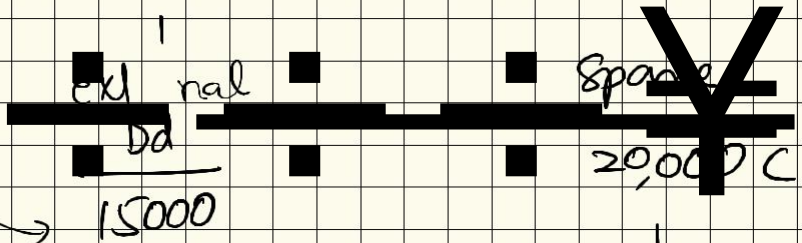
D
i)

Calculate

Calculation of TP

a) 15,000 Components

~~X~~ → Pdm Capacity: 335,000 C
#city



15,000 Campo yn

Demand by
Y: 20,000 C

Deman
d Idle Capacity

min
TP @

$$\underline{K} = \underline{Rs. 157}$$

20,000 C

Full Idle

"

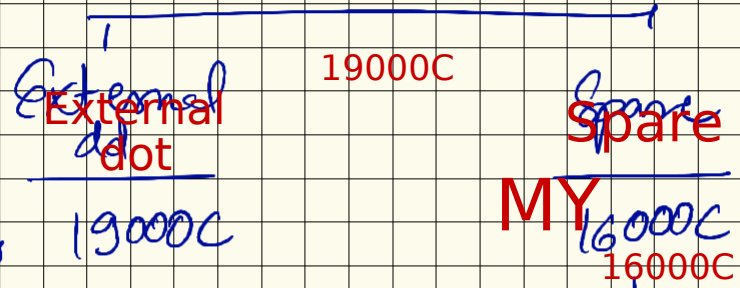
←

Capacit
y

@
rip¥

b) Ext. dtd : 19,000€

X → Pdn Cap. = 35000€



Demand by Y

d_y = 20,000€

Part Spare; Part Occupied

Spare

Sp 16000 @ VC #

@ 157

VC

4000 @ MP

@ 300

dead

4000 @ Mp

30

Min

Min

Rs. 185.6

2512000 + 120,000

@ 157

20,000

2512000 - 1120,000

Rs 18506 yp
= =

D Eatdd 35,000
 9) Ext. ad. = 25,000C

he Pdn Cap 35000C
 X → Pdn Cap. 35000C



Demand
~~Degr.~~

Space = 0

E
 ↓

Dd. by Y.

20,000 C



time fully Occupied

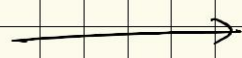
fly Occupied

yp = MP

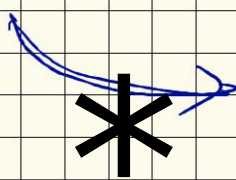
= 300%

ii)

Y par
Y pur



External
Supplier



@ Rs. 255/-
each

a) TP : 157



our pm
current price of Y

@ 255/-

As per above Y has purchased
20000 c @ (255-157) price per c
extra.

∴ (20000 c @ 98/-) = 1960000/-
As per above Y has purchased

Extra cost

so 20000 c @ (255-157) 94
Redn in Profit by Rs. 196000/-
Extra

: C_{so} 0000 @ 94) = fg

1g 60,0001
=

Extr cost
a

Red: in Profit by A 196 A 00f

b) Y → TP

Ext Supp

b)

@ Y 185.6

@ Ext Supp
asf

@ 185.6
Addi cost

@ 255

Addi Cost
per
per C

(255 - 185.6)

= (255 - 185.6)

= 69.41

= 69.4 / €

× 20,000

× 20,000

= Rs 1388,000

Red

in

profit
profit

R

1388,000

1388€0

0

c) Y → TP

⑨ Y @ 300 TP
@ 300

External

External
Sipp
@ 25T

Savings i_n (300 @ 255)

Savings
coset in
cost

: (300 - 255)
44C
x = 45/C

MOOCS
IS 900,000
900,000

Tim o IS 9091001

↑ in fp : \$ 900,000/-

(Net-Profit)
=

t Profit)
=

HOME

Work

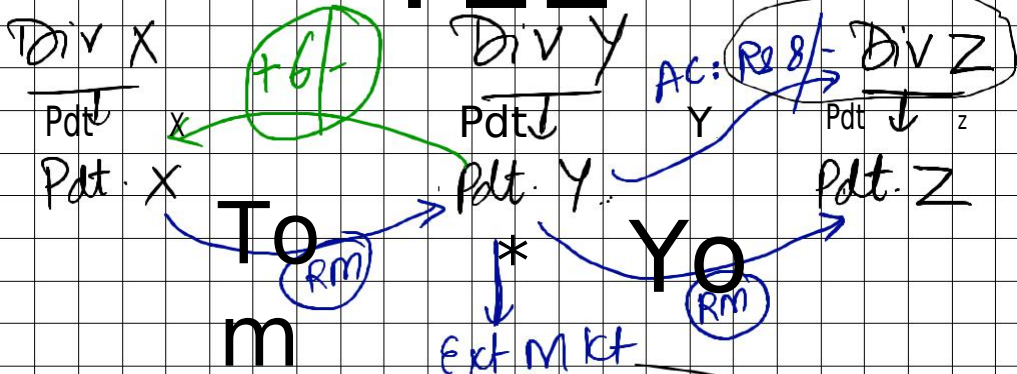
Revoir

+
Revision
=

Qn
PO

POD Ltd
TRI-POD Ltd.

TEE



Ext Mkt
 Addl cost: Rs 10/-

Particulars	x	y	z
SP	110	170	240
DM	110	170	240
DL	40	135	135
DL SAC	385	50	45
Cap.	15	50	145
Demand	20,000	30,000	40,000
	14,000	26,000	42,000
	20,000	30,000	40,000

Direct Selling: Not applicable to
 Demand 14,000 26,000 42,000
 * Direct Selling Not applicable to

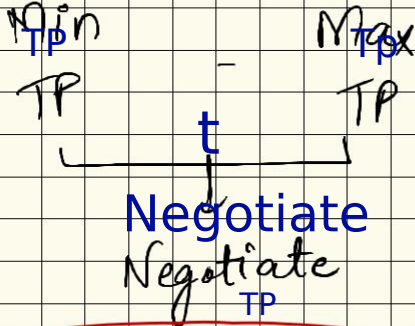
ohd

Internal TY

Range of Negotiation

Range of Negotiation

Min Max



D

i)

X

TP →

Y

(^{mi}min - Max)

TP

2

ii

i)

Y

TP →

Z

(_{min}min - ^{Max}Max)

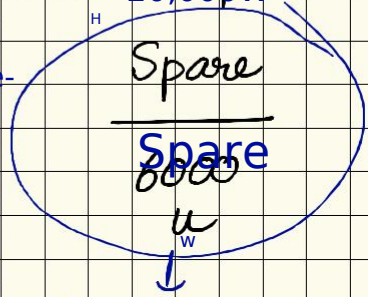
r



i) Cost of Min & Max TP
for TP of X to Y

Pdn
Pdn Capacity: 20,000 u
x
xcapacitf

External
Dd.
External
114,000
u
it



Profit to be earned
from External Sales:

Profit to be earned

$$(SP - \text{All costs}) \times \text{External Sales}$$

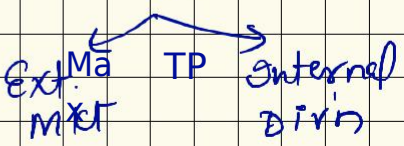
$$= 25 - \text{p.u.} \times 114,000$$

NP = Rs 250,000/-
(110-40-30)-/-

Y = 26,000 units ✓

Y min 26,000 units if
Max TP,

Units to be sold to



Units to be sold

15)

= 24
× IU 000 u pie
NP : Rs 350,000J

to
← →
Ext antenn
Mkt al
Dir 'm

Min TP

Min TP :

6000 u | 20,000 u

6000 u use

20,000 u

TVC - TVC

MP - VSC

(420,000 - 70) ÷ (85 - 15 = 70)

^a (110 - 95/15) = 95

420,000 ÷ 70

1900,000
(95 × 20,000)
(95 × 20,000)

2320,000

26000 u
26000 u

= min TP = Rs. 89.23

Max TP

Max TP
Mp

Usc =

(110 ID

$$MP - VSC = (110 - 15) = 95$$

or Substitute

Substitute Value

$$= (85 - 6) = 79$$

⊖ Alt's cost

① Attn cost

cE-6)

fa@

Max TP = 79
Max TP = 7

(Since min TP > Max TP; it is a case of TP Deadlock. Accordingly,

internal transfer is not possible for 26,000 units.)

internal Transfer is not possible

for 26,000

units

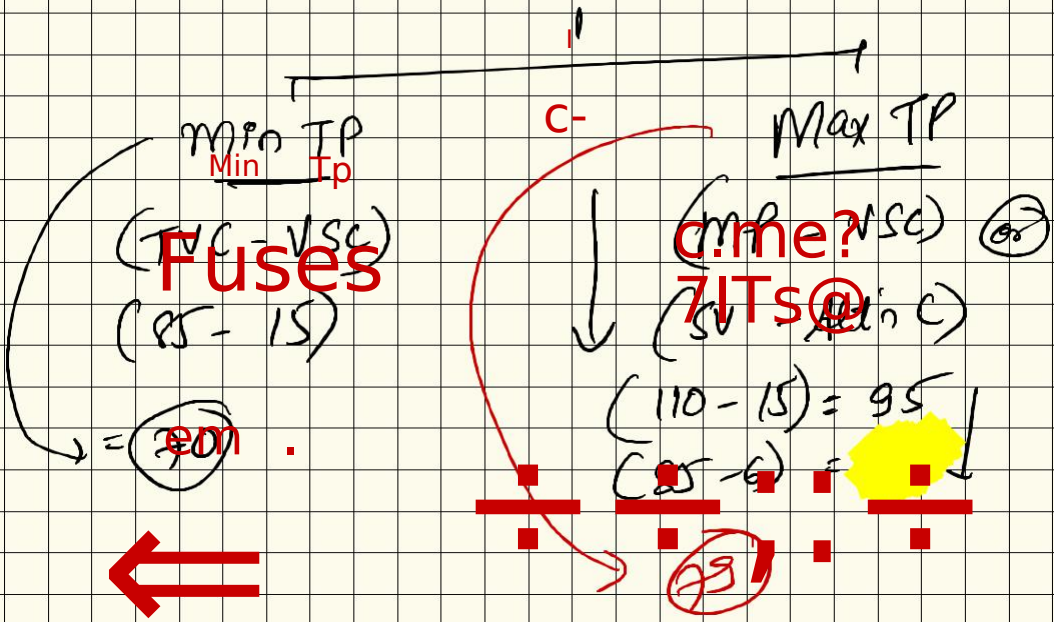
)

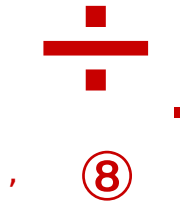
Accordingly, X can sell 14000 u

Accordingly, X can sell and 14000 u
to outside market and
it can sell 6000 Spare units to
Y.

The calculation of AP by Dir. x toy

For 6000 Spare units





Conclusio

Conclusion ⁿ ..

X will

X will

Tf 6000 u to

Y

@

min

TP

min

TP

= to

%

Max

TP

-as

Max

TP

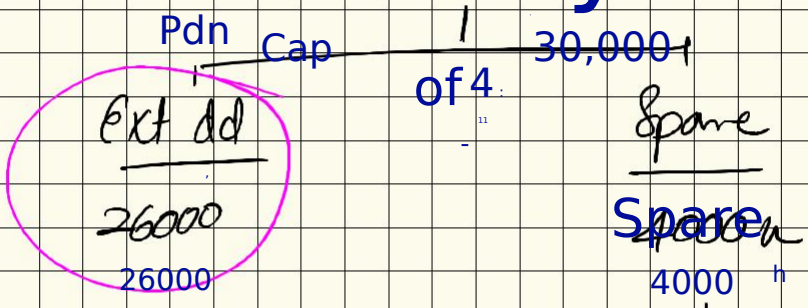
= 79

✓

i ii)
d

Analysis from Dairy 1 to Dairy 2
TP for Tsf
fo Tsf

Analysis



Req. of 2
Req of 2

40,000 units

-40,000 unit

(As per the table in the given ;
 C As per the table in the given ;
 Div. 1 will check the Profitability
 from both will check the market profitability
 external sale ty

from
m

both

:

External

market

and

Artery

Sale

Profitability & for Ext 1 2

External Mkt

Internal Mkt (Z)

	External	Mkt		Internal	Mkt	(Z)
If Pur. at SP _{Pur}	0/5 170	70 170	79 170	0/5 0¥	79	79
DM:	85	70	79	DM	85	70 79
DL:	50	50	50	DL	50	50 70 79
SAC:	15	15	15	SAC	50	50 50
Pick up	15	6	6	Pick up	-	6 6
Addl cost up	10	10	10	Addl Pick up	8	8 6 8
NT	10	190	10	Addl	8	8
0 Addle cost						

FIT

&

Max TP that Z is willing to pay to

External pur. price

143: 8

Reject

Reject

7¥71

May TP that 2 is

t d t

willin to pay to Y

143 : 13 : 193

g

4

is 2's

External

pa price

|

|

r

i.e

Rs 135

Reject

reject

YM will Sell

Y will sell External Mkt

-26000 *to External Mkt*

For *ieb* spare capacity of ⁴⁰⁰
for 16 spare capacity of 4000 u

Y will sell to 2 @

min : 134 Cvc
min : 134 (VC)

Max : 135 (substitute Value)
Max : 135 (substitute

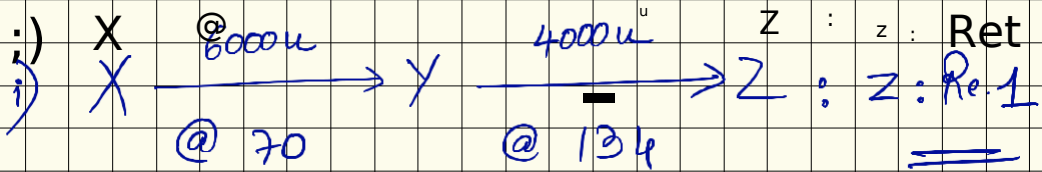
Value

)

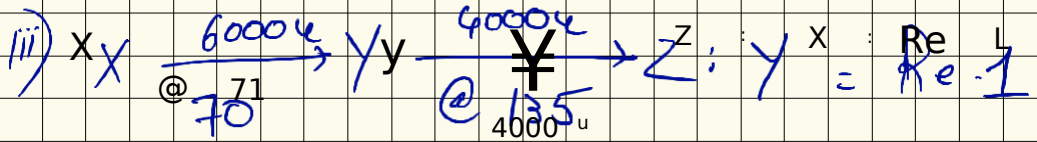
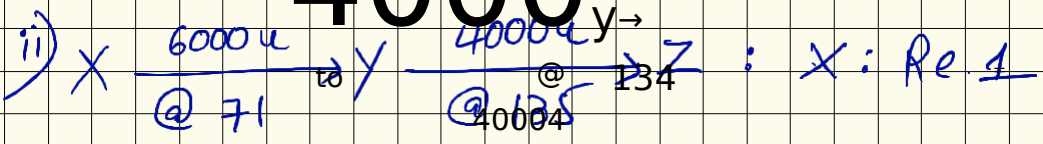
Conclusio

Conclusion:

n



4000



l x to y €2 " Y = Re 1

Qin

Eastern Co. Ltd.
n | d

CB
CB

KCB = 4CB = 1WD

WD
WD

External
mkt.

IND

Capacity: 320

Capacity
VC/u: 220,000

FC: 920,20,000

12

16,45,36,000

@ Rs 320,000: No Tender

@ 1710,000: No
480,000 tender

↓ Rc 10,000; 320 ↑ 260,000 units

Rs 16,4 36,000
↓ 50,000 5; 50,200

Rs 320,00 NO Tender

$$MR = a - 2bQ$$

P = Quotation Price

a = Price @ which No Quotation awarded

b = Demand curve

Q_{if} = Optimum a Q to be sold

Quotation price

MR = Marginal Revenue

Price @ which No

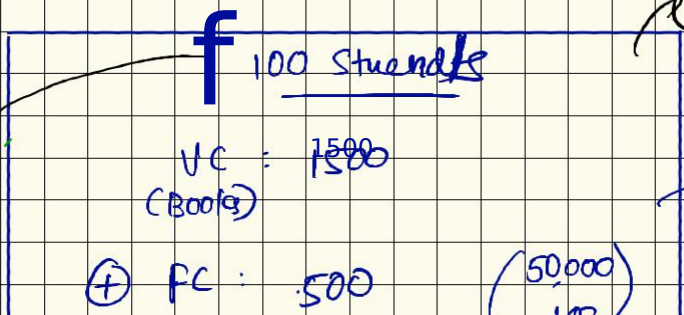
μsg000;sg2_{-a2bG}
MR

Q = Optimum Qty to be
y
Sold
* MR = Marginal Revenue

Quotation awarded
Demand curve
(I sp)
TQtyDd

$$P = a - bQ$$

$$MR = a - 2bQ$$



~~2bQ100stuegApp@~~

Net-Profit $\oplus 10\%$ ~~X.C~~

2200/-

SP := 2200
 VC : 1500
 Rent : 800
Loss : 100

Admission

Bigger Rent:
 Rs. 100,000/-
125 St.

¥

S

125 Admission

fp

220

|

÷

re :15W

Bigger: Rent:

ars:

± ÷

Bed

Calculation of SP of WD

$$P = a - bQ$$

$$MR = a - 2bQ$$

Annotations: P is highlighted in yellow. MR is circled in blue. Q is circled in blue. COB and ii are circled in red. WD is circled in black. A red arrow points from Q to COB . A blue arrow points from MR to Q . A blue arrow points from MR to the text below.

go?

As per the pricing formula ;
per the pricing formula

Profit is Maximum?
Maximum?

where / when

why / when

$$M_1 \text{] } \textcircled{4} : * \text{ } \text{---} \text{ } \text{---}$$

Annotations: M_1 is written in green. $\textcircled{4}$ is circled in blue. $*$ and --- are written in green.

1 ¥

(marginal cost / variable cost)

cost)

Fo WD

$$\text{For WD: } \left[\text{MR} = \text{MC} = a - 2bQ \right]$$

MR = MC = Variable Cost of WD

$$\begin{aligned} \text{MR} = \text{MC} &= \left[480,000 + (4 \times 220,000) \right] \\ &= 480,000 + 880,000 \\ &= \text{Rs. } 1,360,000 \end{aligned}$$

Rs 1360,000

(* In absence of info, we have taken
 VC for Transfer?)
 In absence of info, we have taken
 VC for Transfer?

Transfer

Pong

Now:

$$MR = MC = 1360,0001$$

$$MR = MC = 1360,000$$

$$1360,00 = a - 2b \quad Q$$

$$1360,000 = 1710,000 - \cancel{2} \times \frac{50,000}{\cancel{2}} \times Q$$

~~50,000~~

$$1360,000 = 1710,000 - 50,000 \times Q$$

21 × 50,000 = 1050,000

$$1360,000 - 1050,000 = 1710,000 - 1360,000$$

$$310,000 = 1710,000 - 1360,000$$

$$310,000 = 350,000$$

$$310,000 = 350,000$$

Q

u

$$P = a - bQ$$

$$P = a - bQ$$

$$\begin{aligned} & E \quad 1710,000 \quad 50,000 \quad \times \\ & \equiv 1710,000 - \frac{50,000}{2} \times \end{aligned}$$

$$= \frac{1710,000}{710,000} - \frac{175000}{710,000}$$

$P = Qs.15350$

$$P = Qs. 1535,000 /$$

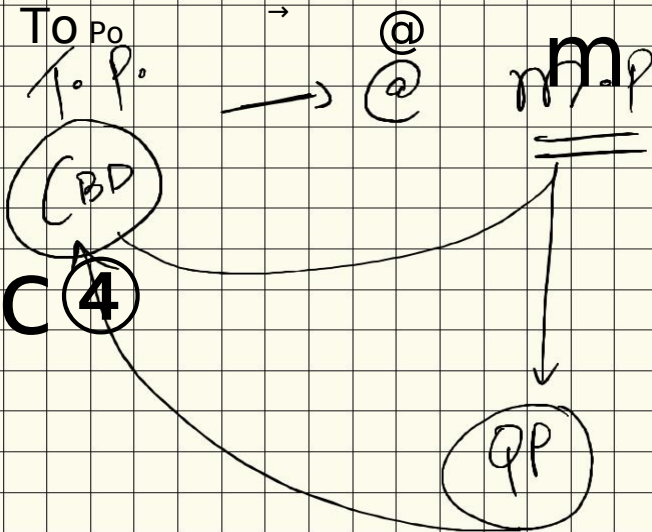
man
Ffg
Again

we
WD

Q1
= ~~QP~~
(Price which

f.

(Price which^m
gives maximum
Profit)
gimpy
?



¥

0

i) a) QPOfCBD

We know profit is maximum
 We know Profit is Maximum

where; $MRR = MCC$

$$MR = MC = \frac{220,000}{0}$$

$$220,000 = a - 2bq$$

$$\frac{220,000}{0} = \frac{320,000}{0} - \frac{2 \times 10,000}{30} \times \frac{q}{15}$$

$$-100,000 = -12 \times 10,000 \text{ to } -100,000$$

$$q = 150$$

$$P = a - bq = 320,000 - 10,000 \times 150 = 320,000 - 1,500,000$$

\Rightarrow #x

$$P = \frac{320,000}{270,000} \times 50,000$$

b)

For WD
For WD

t 1089000)

$$MR = MC = (480,000 + \frac{1089,000}{(270,000 \times 4)})$$

$$M = (270,000 \times 4)$$

€80,000?

$$1560,000 = 1560,000 - 50,000 \times 9$$

$$1560,000 = 1710,000 - 50,000 \times 9$$

$$-150,000 = -50,000 \times 9$$

$$-150,000 = -3 \times 50,000$$

$$q = 3$$

Done

$$P = a - bq$$

$$= 1710,000 - 25000 \times 3$$

$$P = 1710,000 - 25000 \times 3$$

$$P = 1635,000$$

P=163

Goal

Congruence

219Mt

Goal - 2412T;

Congruence - RET)

(सबका साथ)

(सबका विकास)

Minimum

(Transferor)
(Transferrer)

Maximum

Maximum
(Transferee)
(Transferee)

win
win

μ

4
TP

opp. int

opp. lost

Re@

@
28

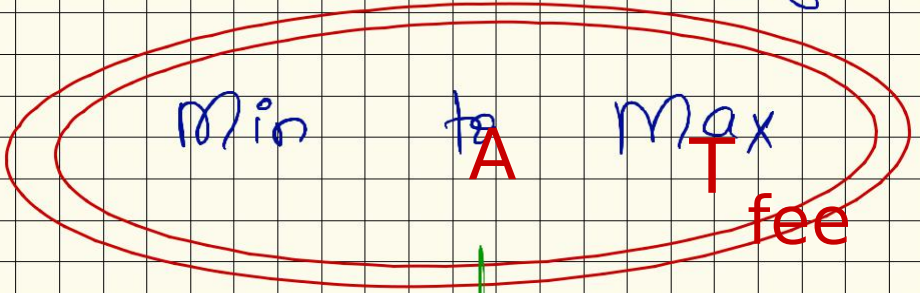
at

t@ @

!

Iftop.is/CepT-

If T.P. is kept
withi_n the Range
Min to Max

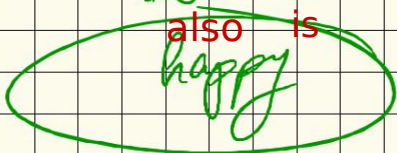


Tfr
win
win

T fee
win
win



Overall company
Overall company
also is



hopped

TY

H happens

withi
n

Ty

happens

Within

min. to max TP

$m \div n \rightarrow to$

Goal Congruence ✓

ma

Goal

Congruence

✓

= Rs 10f.

=

i) If Div B gets prod. A from outside

as

a) @ 14/-

Since A does not have an external market; its major focus is to

Recover its S.V.C. i.e. 10/-
Recover its VC i.e. B.

Accordingly, any price above 10 is acceptable to A-Division. / Div. A

Since Div B is getting it @ 14

Max TP that gets should change @ 19

Max is TP 14/- that A should change

Range of min - max will be
B 14
R 1 (10 14).

Range of min Max will be

Co ID

i) ii)

If Div B can buy from outside @
If Div B can buy from outside @
In this situation we have to consider

In this overall profitability to consider

If the overall profitability of Div B purchases from Div A
If Div B purchases from Div A
at Div B's substitute price @ Biff/
at Div B's substitute price @ Biff/

then it will result into a loss
for Div. B.

Based on overall position.

Total Cost of Div. A = 10
Total Cost of Div. B = 5

Total cost of Div. B = 5
#

Overall
cost

15

we can sell it at
we can sell in that market

Rs. ₹0/- in the market.

So \therefore A has a scope of

Max Rs. 5/- (20-15)
Max Rs 51 (so ID)

and also since Dix A has a

VC of Rs. 10/- and No External
VC of Biot and No Extend

market

Market

\therefore Min TP = Rs. 10/-

and Max TP = Rs. 15/- (10+5)

¥ \Rightarrow

Conclusion: \therefore Min : 10 &

(Goal congruence will be promoted) Max TP : 15

Conclusion

Min

IO

f

(goal
will be promoted)
= congruence

TP

Max TP

15

iii) If Div B can purchase externally @ $\text{Rs. } 14/-$

Since Div A sells externally @ $\text{Rs. } 12/-$

and its capacity is fully utilised. Then (Min TP of Div. A will be the **Glib** TP of Div A will be

MP

mp

Min TP will be $\text{Rs. } 12/-$

g Since Min TP B will be $\text{Rs. } 12/-$ externally @ $\text{Rs. } 14/-$; we (ie. Div A) will

still charge B a max of $\text{Rs. } 12/-$ externally

As per ICAI; they have considered $\text{Rs. } 14/-$ as Max TP as $\text{Rs. } 14/-$ (Substitute Value.)

stil chang^a man of B. if
l e
As pe KAI ; they hav considere
r e d
Max TP^{as} B.ly/- CSubstitute Nahe ,

which according to us seems
which according to us seems
incorrect
in red. Min TP IL

ICA1 : Min TP : 14
Max TP : 14

SII Moin IP IL
SK : Min TP : 12
Max TP : 12
max TP : 12

Qn
n

AB

Div. A

(C_A = I_B)

Div. B

Capacity : 50,000 u
capacity : 59,000W

Capacity : 45,000 u
capacit : 45,000W

Ext old : 30,000 u ✓

Ext old :

FC : 30,000
upto 30,000 u : 430,000/-

FC ↑ 10,000 u : 500,000/-
upto

VMC 30,000 ✓

T 1,000

VSC 4 : 10 ✓
(Ext)

VSC

(gut) C_{Ext} Spl
59439.00000.¥

Usc Spl Sales
(gut) C_{Ext} Spl : 70

Ext. mkt. Splud. : 80 ✓
SP

Substitute Value

€

From of : 45 g

⊕ Subc : 30

From Subst Value of Subc : 75/-
⊕ Subc : 30

Div A sells 45,000 u
¥ : 7 st

i% A_A, 50,000 u B# < 45,000 u : 70

Div A. Spl order (15,000 units)
Div A. Spl order (45,000 units)

Usc

#

istl

seeing



DivAspl.order-45000units)

Ea

Mkt

go



t

sp

a

As per the above Summary

As per the above Summary ;

Below are the Strategies possible for DIV A

① Sell 30,000 u of External Dd
+ 20,000 u to B @ 70/- Dd

& ② sell 30,000 u to Ext Mkt
+ 15,000 u to Spl Order
+ Sell 30,000 u to Ext. Mkt @ 70/-

③ Sell 45,000 u to Div B
+ 5,000 u to Ext. mkt.
@ 75/- IS

④ Sell 40,000 u to Div B
+ 15,000 u Spl Order
+ 5,000 u to Ext. Mkt @ 70/-

⑤ Sell 35,000 u Ext.
+ 15,000 u Spl order.

2Q3

④sell35000.ttoDivB

t

1500
0

u

splorder

⑨

Sell

*!
■

35000-Ext

t

15000

u

Spl

order

Evaluation of Possibilities

	Ext	sell all	Sell less than	Spl. order
Ext Mkt.	45000W	45000W	45000W	(15000)
SP	75	75	70	70
VMC	55	55	55	55
VSC	10	-	-	-
VVC	15	20	15	15
Conth	15		15	15
VC	0	75	70	70

Either VC of A Res. 5 fufg
 or FC of B Res. 50000 DEI

Indifference pt. = $\frac{FC}{VC \text{ p.u.}} = \frac{50,000}{5} = 10,000 \mu$

nce

$$= |9 \\ 0$$

If we sell less than $(B + Spl)$ then **Self** ;
 then 10000 to opt for VSC of 5.5

However, if we sell more than 10,000 ; $(B + Spl \text{ order})$
 then better to opt for $FC = 50,000/-$ for **1-**

Since in all cases, our $(B + Spl \text{ order}) > 10,000$ units ;
 we will opt for $FC @ Rs 50,000/-$ log
 we will opt for

As can be seen from above calculations ;
 the Best strategy will be
 " Sell 4500 to B + 5000 to External " ;
 fell 4500 to B t 5000 to

0

Extern
al

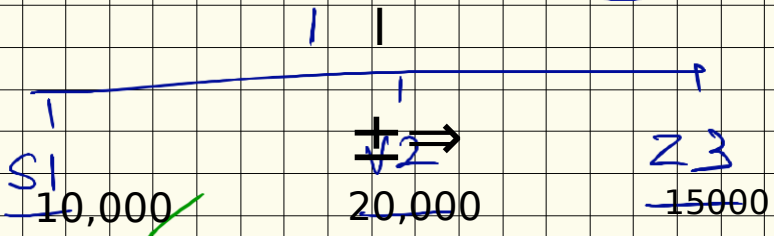
"

Mkt

Examine
Example
Mobile

Mobile

Least Cost



10,000 ✓ 20,000 15000

④ P|g|000|1o0|#|i

~~1000 1000 100~~

E r

21K 16K

Profitability Statement of A

<u>Sales:</u>	y		
<u>¥</u>			
B		(15000 x 75)	: 3375000
Ext. Mkt		(15000 x 80)	: 450000
			3375000

		Fat met Sales { 4% 84 x 35	: 37,750,000
--	--	----------------------------	--------------

⊖		Variable Costs }	
		Sales	37,750,000
		• VMC (50000 x 55)	27,750,000

①		Variable Costs	
		• VSC (Ext.) (5000 x 10)	50,000

		VMC (50000 x 55)	2750,000
--	--	------------------	----------

		Con't'n (5000 x 1)	: 50,000
		CExt)	0)

⊖		<u>Fixed Cost</u>	
		Couth	975,000
		upts 30000 u	430000

⑦		fixe Cos 10000 u 10000 u	50000
---	--	--------------------------------	-------

⊖		Fixed Cost of Div B & Spl order upto 19000W	40,000
		30,000	50,000

		NET PROFIT :	395,000
		④ 10,000	50,000

① Fixed Cost of Div B & 50,000
Spl order
NET PROFIT : 395,000

#

i) Range of TP

Min TP - Max TP

Best Strategy : (4000 u B) + 5000 u Ext mkt)

Min TP : (Try to Div. B) 58mg

VC of unit (A) * Cost of unit (B)

g) to be tfd ↓ lost

$$\begin{aligned} & \checkmark \frac{55(A)}{a} + \frac{15}{A} \checkmark \\ & = \frac{55}{a} \cdot \frac{70}{-} - \frac{15}{-} \end{aligned}$$

MP of RSubst. Value ↓ 80 = 75

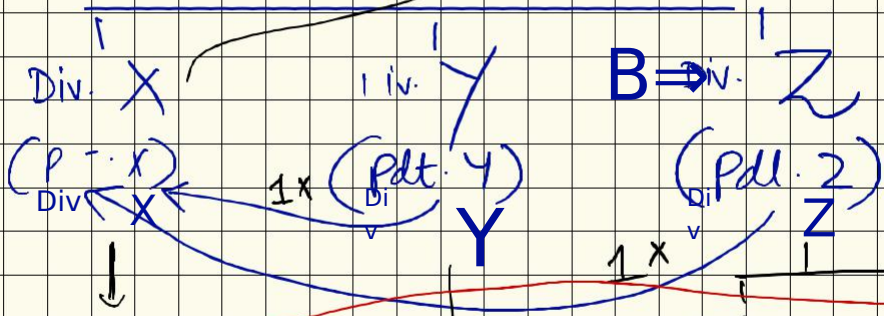
⇒ MEI ¥4 M&m :

rant

Q1:

B. Ltd.

Subst: @ Rs. 23
fihst: @



SP: 25
(Pdt)

.gg#pdt.y

Ext	X
23	TP
+5	+1
	<u>26</u>

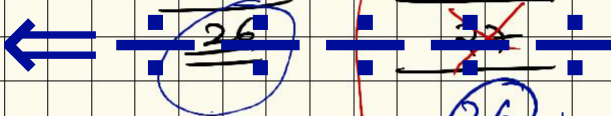
sp:

as

TPG

TP (35)

For Modif.
Use X Idle
Laba.
Ext (sir)
@ 3 p.u.



t5 8

24

→ 2 = 25

Z **®**

a) Statement of PROFITABILITY

Particulars	X			Pur	Pur	Z
	o/s.	Y	Z	pur	pur	Z
SP	25	24	25	65	65	90
Sp	-	24	25	-	65	90
TP	-	24	25	-	65	90
DM	8	8	8	22	22	40
DL	4	4	4	6	6	8
V _{oh}	2	2	2	2	2	2
TPC	26	-	26	26	26	26
V _{oh}	2	2	2	2	2	2
TPC	11	10	11	36	36	14
M	11	10	11	-	-	14

990 Case of X : if will prefer to
 Sell on of priority if to then prefer to
 Sell on priorit t 0 then

y

Analysis of Capacity Expansion

Sentence Ty

	X	Z	Y
Existing Cap	6000 goosey	3000 u	3000W u
Add't cap.	6000 u	2250 u	2000W u
Total cap	6008	225g	
External Dd	5000 u	5000 u	5500W
Balance	7000 u	5000 u	
Total Exph to be done	2000W	2000 u	2000W

X

Z

Y

Existing Cap

Add't cap.

Total cap

External Dd

Balance

Total Exph to be done

T

④

be. 60000

50%

done

r

we will do the above

Excursion only of it results
 Expansion only of it results
 into Additional Net-Benefit

Analysis of NB of Expansion
 Analysis of NB of Expansion

S X Y Z

Expansion done

6000
u

2000
u

2000u

Expansion done
 Earned

5000
u
64000

2000
18000
18000

2000W
28000
N000

(4000 x 11)
 Earned
 + 2000 x 10
 (4)

6400
0

(2000 x 9)
 (5000 x D)
 9000

23/00

FC (Expansion)

45000

¥0004900

%Expansion.org

45000
Expand
x

9000
expand
y

4900
2310
Expand
z

GFI ✓expandExpand

x y z
Expand .

Overall NP of XYZ
Overall NP of XYZ

X Y Z

Cost
 (5000 x 11) +
 (5000 x 14) +
 (2000 x 10)
 5000 x 11
 5000 x 14
 2000 x 10

1,15,000

45,000
 0 (5000 x 9)

77,000
 (5000 x 14)
 5000 ND

① Fixed Cost

4500

9000

2230

Fixed

8500 + 3600 + 4690
 8500 3600 4690

Total
 of
 hotly

Rs 167,9001
167,9001

