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Question # 01:-

A company produces of products P_1 , P_2 and P_3 ... Time required

Solution :-

Produking	Progress	Finishing
P_1	12	03
P_2	06	08
P_3	08	06
Company capacity	3000	1500

Now convert into Linear programme.

$$12x_1 + 6x_2 + 8x_3 \leq 3000$$

$$3x_1 + 8x_2 + 6x_3 \leq 1500$$

Maximum $Z = 1000x_1 + 800x_2 + 400x_3$

Now Find x_1 intercept

Put $x_2 = 0$ and $x_3 = 0$

$$12x_1 + 6x_2 + 8x_3 = 3000$$

Put $x_2 = 0$ and $x_3 = 0$

$$12x_1 + 6(0) + 8(0) = 3000$$

$$12x_1 + 0 + 0 = 3000$$

$$\frac{12x_1}{12} = \frac{3000}{12}$$

$$x_1 = 250$$

$$P_1 (250, 0, 0)$$

Now for x_2 intercept put $x_1 = 0$

$$\text{and } x_3 = 0$$

$$12x_1 + 6x_2 + 8x_3 = 3000$$

$$12(0) + 6x_2 + 8(0) = 3000$$

$$0 + 6x_2 + 0 = 3000$$

$$6x_2 = 3000$$

dividing by 6 .

$$\frac{6x_2}{6} = \frac{3000}{6}$$

$$x_2 = 500$$

$$P_2 (0, 500, 0)$$

Now for x_3 intercept

$$\text{put } x_1 = 0 \text{ and } x_2 = 0$$

$$12x_1 + 6x_2 + 8x_3 = 3000$$

$$12(0) + 6(0) + 8x_3 = 3000$$

$$0 + 0 + 8x_3 = 3000$$

$$8x_3 = 3000$$

dividing by 8 .

$$\frac{8x_3}{8} = \frac{3000}{8} = 375$$

$$x_3 = \cancel{250} \quad 375$$

$$P_3 (0, 0, \cancel{250}, 375)$$

that is all points put in equation (Z) to find the maximum point value.

$$Z = 1000x_1 + 800x_2 + 400x_3$$

$$Z = 1000(250) + 800(0) + 400(0)$$

$$Z = 2,50,000 + 0 + 0$$

$$Z = 2,50,000$$

NOW put another intercept

$$Z = 1000x_1 + 800x_2 + 400x_3$$

$$Z = 1000(0) + 800(500) + 400(0)$$

$$Z = 0 + 4,00,000 + 0$$

$$Z = 4,00,000$$

NOW put 3rd intercept.

$$Z = 1000x_1 + 800x_2 + 400x_3$$

$$Z = 1000(0) + 800(0) + 400(375)$$

$$Z = 0 + 0 + 1,50,000$$

$$Z = 1,50,000$$

$$Z = 1000(500) + 0 + 0 = 5,00,000 \checkmark$$

$$Z = 0 + 800(182.5) + 0 = 1,50,000$$

$$Z = 0 + 0 + 400(375) = 1,50,000$$

NOW maxi points is

$$P_4(500, 0) = 5,00,000$$

Question # 02 :-

The MD of the company has the following goals which are arranged in order of priority.

- * P₁ No under utilization of plant production capacity.
 - * P₂ sells maximum possible number of products, A & B
- The MD has twice as much desire to sell product "A" as for product "B" because the net profit from the sale of product "A" is for the amount

Solution :-

- * We are formulating the above as general programming problem and solving it.
- * goal is the maximization of sales.

then

$$x_1 + 2x_2 = 150$$

and

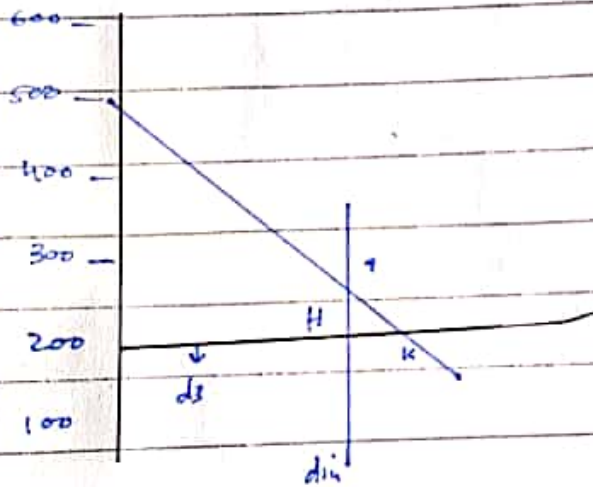
$$x_2 + 2x_3 = 200$$

Subjected to constraints

$$x_1 + x_2 + d_1 - d_1 = 500$$

$$x_1 + d_2 = 150$$

$$x_2 + d_3 = 200$$

and $x_1, x_2, d_1, d_2, d_3, d_4 \geq 0$ 

Q NO 03 :-

Write a detail summary of The paper Research provided to you in sic. The summary must include each section ... ?

ANSWER :-

→ introduction :-

Critical path methodology is a programming methodology that will repeated all of the various interactions, communications, and defects. The critical path method is an algorithms for scheduling a set of projects activities, its a commonly used in conjunction with the program evaluation and Review ~~for~~ techniques.

→ Research hypothesis :-

This study uses one Rule among many simple algorithmic rules to stimulate the calculation of the largest path, therefore, minimum amount of time is Requested to perform an activity

from the dragonty algorithms and that the Results can be examined.

→ Literature Review: →

Exploring open to calculate the time Resources and value required for projects and events. cpm is used to appear the value and time interchanges by activates that take a shorter time at in expensive.

→ CPM simulation: -

cpm analysis the earliest begin time LS the earlist and time EFF the latest end time dation frequency, and total float FF should be documented for each activity.

→ Research methodology: -

The study utilize the dynamic and static group behavior of dragonty in nature to obtain and dragonty algorithm. the benefits of this approach are to use dragonty's behavior to achieve

→ Results :-

Separation from each other side to avoid the dragmity from static collisions with other fellow humans, coordinations and aligned Ai is the dragmity behavior to match speed with other fellow humans.

→ Discussion :-

most of the ventures are target-oriented objective is to create, recreate or change different offices.

These kinds of ventures include dynamic process which will be isolated into four stages conceptualization, definition, realization and utilize.

→ Conclusion :-

The dragmity Rule is successfully intended to optimize the conclusion they have used this techniques to solve that problems, taking into account projects cost, activity durations and activity durations and activity correlations in the Required with the dragmity.