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Answer :-

solⁿ
Type of Product

Type of Product	Numbers sold in Month	Net Profit
A	150	
B	20	

The MD of the company has set the following ~~comp.~~ goal which once change of profit. P1 No under utilization of production capacity.

P2 sell maximum possible number of product A and 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 twice

B3
 P3 Minimise quarterly
 operation of the plant
 formulate the above as
 a goal profit. so let
 x_1 and x_2 be the number
 of product A and B

$$x_1 + x_2 + d_1 - d_2 = 500$$

where d_1 = under utilisation of
 product capacity variable
 d_1 - overtime production

since the goal is the
 maximum sale hence
 positive deviation will
 not appear.

$$\text{Then } x_1 + d_3 = 15$$

$$x_2 + d_4 = 200$$

d_3 = under achievement of
 goal A

d_4 = under achievement
 of (B)

(3)

subject of two constraints

$$x_1 + x_2 + d_1 + d_2 = 500$$

$$x_1 + d_3 = 150$$

$$x_2 + d_3 = 200$$

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

ph:

