

(9)

MCB

Marks

- (i) What will be the maximum transfer price per unit that Y will offer ?
- (ii) In each of the following independent situations, state with supporting calculations, the minimum transfer price per unit that X will demand from Y, if 5000 units are required by Y.

	Gears	Engines
	(no. of units)	

- | | | | |
|-----|-----------------------------|--------|--------|
| (a) | Market demand is limited to | 20,000 | 20,000 |
| (b) | Market demand is limited to | 15,000 | 10,000 |
| (c) | Market demand is limited to | 18,000 | 24,000 |

- (iii) In which of the above situations in (ii) will the Management step in and compel X to sell to Y in the interest of overall company's profits ?

- (b) A company manufactures two products X and Y involving three departments, Machining, Fabrication and Assembly which have limitations on the hours as 720 hours, 1800 hours and 900 hours respectively. X and Y require 1 and 2 hours of machining time per unit, 5 hours and 4 hours of fabrication time per unit and 3 hours and 1 hour of assembly time per unit respectively. X and Y fetch ₹ 80 and ₹ 100 as respective unit contributions. 5

- (i) Write the linear program to maximize contribution.
- (ii) Introducing appropriate variables, restate the problem as linear equations fit to be incorporated in the simplex tableau.

6. (a) Explain the pre-requisites for successful operation of material requirement planning. 5

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P.T.O.