Question One 168873

a) The production process is highly automated → if a job relies heavily on machinery rather than manual labor, machine hours provide a more accurate measure of overhead consumption.

→ Overhead costs are closely tied to machine usage → Costs like depreciation, maintenance, power and equipment relate expenses are better allocated based on machine runtime

→ Labor input is minimal compared to machine operations In capital-intensive industries, direct labour may be insignificant making machine hours a more relevant cost driver.

Example:

Manufacturing car parts using CNC machines: Since CNC machining is automated and requires minimal direct labor, overhead costs should be allocated based on machine hours rather than labour hours

ii) The production process is labor intensive → If a job requires significant manual work rather than machine automation, labor hours better reflect overhead consumption.

→ Overhead costs are closely tied to labor activities → Costs such as employee benefits and training are more accurately distributed on labour input.

→ Labor is the primary cost driver → human skill and effort determine production speed and efficiency, therefore labor hours provide a fairer allocation method than machine hours.

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Example:

Custom furniture making: Since crafting furniture involves skilled capentry, sanding and finishing by hand, overhead costs should be allocated based on direct labor hours rather than machine runtime.

b) Selling price per unit = 3238200/25200 = 128.50

Variable cost per unit = 266450/25200 = 10.57

145200/25200 = 5.76

125980/25200 = 5.00

128800/25200 = 5.11

170500/25200 = 6.77

Total = 10.57 + 5.76 + 5.00 + 5.11 + 6.77 = 33.21/=

Contribution margin = P-V = 128.50 - 33.21 = 95.29/=

Fixed costs = 255000 + 155448 + 350800 = 761248/=

Break-even Point (units)

BE = $\frac{\text{Total Fixed Costs}}{\text{Contribution Margin per unit}}$ = $\frac{761248}{95.29}$ = 7988 units

Break-even Revenue

Revenue = units x Selling Price = 7988 x 128.50

= 1026458/=

ii) Target units = $\frac{\text{Total Fixed Costs + Target Profit}}{\text{Contribution Margin per Unit}}$

$\frac{761248 + 1500900}{95.29}$ = 23746 units

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iii) New Fixed Production overhead = 255000 x 1.18 = 300900/=

New Total Fixed Costs = 300900 + 155448 + 350800

807148

Variable Production overhead (-35%).

Original per unit = 5.11

Reduction = 5.11 x 0.35 = 1.79

New variable production Overhead per unit = 5.11 - 1.79

= 3.32

Revised Variable cost per unit

10.57 + 5.76 + 5.00 + 3.32 + 6.77 = 31.42/=

Revised Contribution Margin per unit ~~and~~

128.50 - 31.42 = 97.08/=

New break even point = $\frac{807148}{97.08}$ = 8314 units

New break even revenue = 8314 x 128.50 = 1068349/=

c) Date	Transaction	Units	Unit cost	Total cost	Inventory Balance
1/7/2025	Opening Stock	650	9.55		
4/7/2025	Received	1000	12.15		
10/7/2025	Issued (800)	-800	9.55		
16/7/2025	Received	1200	16.55		
17/7/2025	Issued (1550)	-1550			
23/7/2025	Received	1600			
28/7/2025	Issued (1500)	-1500			

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	Receipt				Issue			Balance		
Date	Details	Quantity	Price per unit	Total cost	Quantity	Price per unit	Total cost	Quantity	Price per unit	Total cost
1/07/2025	Opening Stock							650	9-55	6207-5
01/07/2025	Purchase	1000	12-15	12150				650 old	9-55	6207-5
								1000 new	12-15	12150
10/07/2025	Issued (800)				650	9-55	6207-5	850	12-15	10327-5
					150	12-15	1822-5			
16/07/2025	Purchase	1200	16-55	19860				850 (a) 1200 (new)	12-15 16-55	10327-5 19860
17/07/2025	Issued-1550				850	12-15	10327-5	500	16-55	8275
					700	16-15	11305			
23/07/2025	Purchase	1600	30-55	48800				500 (old)	16-55	8275
								1600 (new)	30-55	48880
26/07/2025	Issued 1500				500	16-55	8275	600	30-55	18330
					1000	30-55	30550			

(1600 x 30-55) + (600 x 3055) = 67210 /=

1) Under FIFO the earliest (cheapest) materials are used first for issues thus the closing stock is higher in value,

Question two

Direct costs - Food = 430 x 650 = 279500

430 x 85 = 36550

430 x 65 = 27950

430 x 180 = 77400

421400

Cato = 45000

Decor = 12500

Staff = 15 x 2 x 1500 = 45000

Entertainment = 30000

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Overhead costs = 12900000 / 15800 = 686.17

120 x 686.17 = 82340

Research = 25000

Sales = 12 880

Total = 421400 + 45000 + 12500 + 45000 + 30000 = 553900

Overhead = 82340 + 25000 + 12880 = 120220

Total cost = 553900 + 120220 = 674120/=

Quotation 35% of total cost = 674120 x 0.35 = 235942

Quotation price = 674120 + 235942 = 910062

Direct costs	Amount	Overhead costs	Amount
Food & Beverage	421400	Factory Overhead Allocation	82 340
Wedding cake	45000	Research & Development	25000
Décor setup	12500	Sales & Marketing	12880
Temp staff	45000		674120
Entertainment	30000		
	553900		

Total cost: 674120/=

Profit (35%): 235942/=

Quotation = 910062/=