finance

5.3

$$total\ revenue\ =\ price\ \times\ quantity\ sold$$

$$total\ profit\ =\ total\ revenue\ -\ total\ costs$$

break-even analysis:

$$BEP\ =\ \frac{fixed\ costs}{contribution\ (price\ -\ variable\ cost\ per\ unit)}$$

$$BEP\ =\ \frac{fixed\ costs\ +\ profit\ target}{contribution\ (price\ -\ variable\ cost\ per\ unit)}$$

$$margin\ of\ safety\ =\ sales\ -\ break\ even\ quantity$$

$$total\ contribution\ =\ contribution\ \times\ units\ sold$$
$$\textbf{OR}\ total\ revenue\ -\ variable\ costs$$

3.4

income statement - trading account:

$$COGS\ =\ opening\ stock\ +\ purchases\ -\ closing\ stock$$

$$gross\ profit\ =\ Sales\ Revenue\ -\ COGS$$

income statement - profit and loss account:

$$net\ profit\ =\ gross\ profit\ -\ expenses$$
*can include or exclude interest and tax

income statement - appropriation account:

$$retained\ profit\ =\ net\ profit\ after\ interest\ and\ tax\ -\ dividends$$

statement of financial position:

$$net\ assests\ =\ total\ assets\ -\ total\ liabilities$$
*net assets should be equal to equity (shared capital + retained profits)

depreciation:

straight-line method

$$annual\ depreciation = \frac{purchase\ cost}{lifespan}$$

$$annual\ depreciation = \frac{purchase\ cost - residual\ value\ (worth\ at\ end\ of\ life)}{lifespan}$$

units of production method

$$depreciation\ per\ unit = \frac{purchase\ cost - residual\ value}{expected\ number\ of\ units\ over\ lifetime}$$

$$depreciation\ expense = depreciation\ per\ unit \times number\ of\ units\ produced$$

3.9

$$variance = actual\ outcome - budgeted\ outcome$$

3.8

$$pay\ back\ period\ (PBP) = \frac{initial\ investment\ cost}{contribution\ per\ month/year}$$

marketing
4.1

$$market\ share = \frac{sales\ revenue}{industry\ sales\ revenue} \times 100$$

$$market\ growth = \frac{current\ market\ size - original\ market\ size}{original\ market\ size} \times 100$$

concentration ratio: the sum of the market share percentage held by the largest specified number of firms in an industry.

4.2
pricing strategies:

$$price\ elasticity\ of\ demand = \frac{\%\ \Delta\ Quantity\ Demanded}{\%\ \Delta\ Price}$$

4.3
sales forecasting:

$$moving\ average\ calculations\ (three\ year) = \frac{past + current + future}{3}$$

human resources
2.4
motivation:

$$labour\ turnover = \frac{number\ of\ employees\ leaving}{total\ number\ of\ employees\ in\ the\ business} \times 100$$

operations

$$labour\ productivity\ = \frac{total\ output}{number\ of\ employees}$$

$$capital\ productivity\ = \frac{total\ output}{capital\ input}$$

$$unit\ costs\ = \frac{total\ costs}{output}$$

$$defect\ rate\ = \frac{defects}{output\ tested} \times\ 100$$

$$operating\ leverage\ = \frac{quantity \times (price - variable\ cost)}{quantity \times (price - variable\ cost\ per\ unit) - fixed\ costs}$$

$$cost\ to\ make\ (CTM)\ = (average\ variable\ costs\ x\ quantity)\ +\ fixed\ costs$$

$$cost\ to\ buy\ (CTB)\ = price\ x\ quantity$$