EXAM PAPERS PRACTICE

Cost formulas

- $Total\ cost = FC + VC = sales\ revenue - operating\ profit$
  $= cost\ per\ unit \times quanity\ produced$
- $Average\ cost = \frac{total\ cost\ of\ production}{quantity\ produced}$
- $Total\ variable\ costs = quantity \times average\ variable\ costs$
- $Fixed\ cost = total\ cost\ of\ production - total\ variable\ costs$
- $Contribution\ margin = selling\ price\ per\ unit - variable\ cost\ per\ unit$
- $Total\ contribution = total\ sales\ revenue - total\ variable\ costs$
- $Marginal\ cost = \frac{change\ in\ total\ cost}{change\ in\ quantity}$

Profit formulas

- $Selling\ price\ (cost\ plus) = (variable\ CPU + proportion\ of\ total\ CPU) \times \%\ mark\ up$
- $Sales\ revenue = quantity\ sold \times selling\ price\ per\ unit$
- $Sales\ volume = \frac{sales\ revenue}{selling\ price}$
- $Marginal\ revenue = \frac{change\ in\ revenue}{change\ in\ quantity}$
- $Profit = total\ sales - total\ expenses$
- $Profit\ per\ unit = selling\ price - cost\ price$
- $Gross\ profit = net\ revenue - cost\ of\ goods\ sold$
- $Operating\ profit = gross\ profit - other\ operating\ expenses$
  $= total\ revenue - costs\ of\ goods\ sold - operating\ expenses$
- $Net\ profit\ (profit\ for\ the\ year) = operating\ profit - interest - taxation$
  $= total\ revenue - total\ expenses$
- $Operating\ profit\ margin = \frac{operating\ profit}{total\ revenue} \times 100$
- $Gross\ profit\ margin - \frac{gross\ profit}{total\ revenue} \times 100$
- $Net\ profit\ (profit\ for\ the\ year)\ margin = \frac{net\ profit}{total\ revenue} \times 100$

Liquidity formulas

- $Net\ assets = total\ assets - total\ liabilities$
- $Working\ capital = current\ assets - current\ liabilities$
- $current\ ratio = \frac{current\ assets}{current\ liabilities}$
- $Acid\ test\ ratio = \frac{current\ assets - inventory}{current\ liabilities}$

Competition in the market formulas

- $Market\ share = \frac{business\ sales}{market\ sales} \times 100$
- $Market\ growth = \frac{change\ in\ size\ of\ market}{origional\ size} \times 100$

Productivity formulas

- $Labour\ productivity = \frac{output\ per\ period}{number\ of\ workers}$
  - (The unit for labour productivity is *units*)
- $Capacity\ utilisation = \frac{actual\ level\ of\ output}{maximum\ possible\ output} \times 100$

Percentage change formulas

- $Percentage\ change = \frac{new\ value - origional\ value}{origional\ value} \times 100$

Elasticity of demand formulas

- $PED = \frac{\%\ change\ in\ quantity\ demanded}{\%\ change\ in\ price}$
- $YED = \frac{\%\ change\ in\ quantity\ demanded}{\%\ change\ in\ income}$

Breakeven formulas

- $Breakeven\ point = \frac{fixed\ cost}{contribution\ margin\ per\ unit}$

$$= \frac{fixed\ cost}{selling\ price\ per\ unit - variable\ cost\ per\ unit}$$

- $Margin\ of\ safety = actual\ sales - breakeven\ point$
- $Sales\ revenue\ at\ breakeven\ point = total\ fixed\ costs + total\ variable\ costs$

Real and nominal output formulas

- $Real\ national\ output = \frac{nominal\ national\ output}{average\ price\ level}$
- $Real\ value = \frac{nominal\ value}{price\ index} \times 100$
- $Real\ GDP = \frac{nominal\ GDP}{deflator}$
- $GDP\ deflator = \frac{nominal\ GDP}{real\ GDP} \times 100$
- $Index\ number = \frac{value\ in\ period\ of\ interest}{value\ in\ base\ period} \times 100$

Aggregate demand formulas

- $GDP\ per\ capita = \frac{GDP\ of\ the\ country}{population\ of\ the\ country}$
- $GDP = C + I + G + (X - M)$
- $Y = C + I + G + (X - M)$
- $AD = C + I + G + (X - M)$

Key

$Y = national\ income\ (GDP)$
$C = consumption$
$I = investment$
$G = government\ spending$
$X = exports$
$M = imports$
$X - M = net\ trade$

Expenditure and output formulas

- $Marginal\ propensity\ to\ consume\ (MPC) = \frac{change\ in\ consumption}{change\ in\ income}$
- $Marginal\ propensity\ to\ save\ (MPS) = \frac{change\ in\ saving}{change\ in\ income}$
- $Multiplier = \frac{change\ in\ national\ income}{initial\ change\ in\ aggregate\ demand}$

Labour formulas

- $Marginal\ revenue\ product\ of\ labour\ (MRPL) = marginal\ product\ of\ labour \times marginal\ revenue$
- $Marginal\ revenue\ product\ (MRP) = marginal\ physical\ product\ (MPP) \times marginal\ revenue$

Poverty and inequality formulas

- $GINI\ coefficient = \frac{A}{A+B} = \frac{area\ between\ lorenz\ curve\ and\ line\ of\ equality}{total\ area\ under\ curve}$

Lorenz curve