ACC1701X
AY23/24 SEM 2

Balance Sheet Items and Formulas
- Separate Entity Concept, Time-Period Assumption, Arm's Length Transaction Assumption, Cost Principle, Fair Value Principle, Monetary Measurement concept, Going Concern Assumption

- *Assets = Liabilities + Equity*
- *Assets = Current Asset + Non-Current Assets*
- *Liabilities = Current Liabilities + Non-Current Liabilities*
- *Retained Earnings(begin) + Net Income − Dividends = Retained Earnings(end)*
- *Equity(begin) + Increase in Capital Stock + Net Income − Dividends + Other Comprehensive Income = Equity(end)*

SCI Items and Formulas
- *Expenses = Operating expense + Non-Operating Expense*
- *Revenue − Expenses = Net Income*
- *Net Income + Other Comprehensive Income = Comprehensive Income*
- *Revenue − COGS = Gross Profit*

Sales Discount
DR Accounts Receivable − CR Sales Revenue (Revenue made, credit payment)
DR Cash, Sales Discount − Accounts Receivable

Sales Returns and Allowances
DR Accounts Receivable − CR Sales Revenue
DR COGS − Inventory
If return required:
DR Sales Returns and Allowances − CR Accounts Receivable
DR Inventory − CR COGS
Net Sales *= Sales Revenue − Sales Discount − Sales Returns and Allowances*

Treatment of Bad Debt
ECL is an estimated expense in the SCI. Loss Allowance is a contra-asset account to Accounts Receivable in the balance sheet.
DR Expected Credit Loss − CR Loss Allowance
If specific customer identified specifically as uncollectible, write off:
DR Loss Allowance − CR Accounts Receivable
If written off subsequently pays the outstanding balance, reinstate:
DR Accounts Receivable − CR Loss Allowance
DR Cash − CR Accounts Receivable
- Loss Allowance (End) = Loss Allowance (Begin) + ECL - Unadjusted Balance
- If there is an existing **credit** balance in loss allowance. Top up less by *ECL − Unadjusted Balance*
- If there is an existing **debit** balance in loss allowance. Top up more by *ECL + Unadjusted Balance*
Accounts Receivable(net) = Accounts Receivable(begin) − Loss Allowance (end)

Notes Receivable
DR Notes Receivable − CR Accounts Receivable (issuing note)
DR Cash − CR Notes Receivable, Interest Revenue (accepting payment)
If note is dishonoured (convert into AR):
DR Accounts Receivable − CR Notes Receivable, Interest Revenue

Purchase Discounts/Returns & Bank Reconcilation
DR Inventory − CR Accounts Payable
DR Accounts Payable − CR Cash, Inventory(discount amount)
- Returns:
DR Accounts Payable − CR Inventory

Perpetual vs Periodic Inventory System
- Periodic: No COGS recorded until end of period. Temporary accounts are used to record the **purchases, freight-in, purchases returns and purchases discounts**.
- **DR: Inventory(Net Purchases), Purchase Returns, Purchase Discounts − CR: Freight In, Purchases** (Adjust into Inventory Acc)
COGS = Inventory(begin) + Net Purchases − Inventory(end)
Cost of goods available for sale = Beginning Inv Balance + Net Purchases
- One entry: **DR COGS − CR Inventory**
- When inventory price rises. Gross margin, net income, inventory(end) is highest with FIFO. WA and LIFO understate inventory(end).

Net Realizable Value, NRV
If NRV < Cost, write down item by item:
DR COGS − CR Allowance for Inventory Write Down (Contra-Inventory, BL)
If NRV ≥ Cost, no adjustments needed.

Liabilities
Payroll and Payroll Related Liabilities
- Employers withhold payroll taxes, pensions, insurances, and other deductions to government and agencies.
DR Salaries Expense − CR Salaries Payable; Various Payables...
DR Salaries Payable − CR Cash
- Employers contribute to insurance premium and pensions for employees.
DR Various Expenses... − CR Various Payables...;
- Employers pay amount withheld for employees and its own contributions.
DR Various Payables... − CR Cash
- For this course: 17% CPF for employer, 20% CPF for employees. (applied on gross salary)
DR Salaries Expense − CR Employees's CPF Payable; Salaries Payable;
DR Employer's CPF Expense − CR Employers CPF Payable
- Employer making payment to CPF Board and Employees.
Salaries Payable − CR Cash;
Employers CPF Payable; Employees's CPF Payable − CR Cash

Sales Tax Payable
- Sales taxes are paid by customers to the seller, who in turn pays the taxes to the government agency.
DR Cash − CR Sales Revenue; Sales Tax Payable

GST and VAT
Supplier $\xrightarrow[\text{Input Tax}]{}$ Seller $\xrightarrow[\text{Output Tax}]{}$ Customer **DR**
Inventory/Purchases − CR Cash; GST Input Tax [Purchasing inventory]
DR Cash − CR Sales Revenue; GST Output Tax [Making a sale]
DR GST Output Tax − CR GST Input Tax; GST Tax Payable (Calculated Net GST Payable)
DR GST Tax Payable − CR Cash
- For VAT: Swap out "GST Tax Payable" with "Business Tax Payable"

Property and Income Tax Payable
Property Tax:
DR Prepaid Property Taxes − CR Cash
DR Property Tax Expense − CR Prepaid Property Taxes
(Remember to adjust according to months of prepaid used-up)
Income Tax:
Applied on income before tax in SCI. (Tax rate is 17% in SG)
DR Income Tax Expense − CR Income Tax Payable

Provisions and Contingent Liabilities
- Provision is reported as an estimated liability on the balance sheet. It is recognised when the loss is probable and a reliable estimate can be made.
- Contingent liabilities should be disclosed in notes to financial statements if certain conditions are met. NOT reported on the balance sheet.

- When probability of losses 10-50%, disclose in notes.
- When probability of losses 50% or more, recognise as provision.
- When probability of losses less than 10%, no need to disclose.

DR Lawsuit Loss − CR Lawsuit Provision

Provision for Product Warranty
DR Product Warranty Expense − Product Warranty Provision
DR Product Warranty Provision − CR Supplies; Wages Payable; Cash etc...
- The balance of warranty liability/provision account does not affect warranty expense.

Other Revenue and Expenses in SCI
- Other Revenue and Expenses (or non-operating income and expenses) are items that incurred or earned from activities outside of, or peripheral to, the normal operations of a firm.
- Dividend Revenue, Gain on sale of land, Interest expense etc.

Property, Plant and Equipment (PPE)
- PPE Acquisition Cost = Purchase Price + All Costs to get it ready for use.
- If PPE is acquired by purchase of two or more assets acquired together at a single price. Fair market value is used to calculate the apportionment of lump-sum cost (used in JE).

Depreciation, DEPR
- **Depreciation amount** = Cost − Residual Value - Recognised in income statement as operating expense.
- Residual value → value of asset at end of its useful life.
- Useful life → period over which asset is expected to be used/ number of productions.
DR Depreciation Expense − CR Accumulated Depreciation, "PPE"
- Accumulated Depreciation is a contra-asset account to "PPE" account in BL.
- **Carrying amount** = Cost − Accumulate Depreciation
- Change in depreciation estimates only affect future years

Straight Line Method of Depreciation
- **Annual DEPR Expense** $= \frac{\text{Cost - Residual Value}}{\text{Estimated Useful Life (Years)}}$
- Note: It should be broken into months for end of fiscal year reporting. (Partial Year DEPR)

Unit of Production Method of Depreciation
Annual DEPR Expense $= \frac{\text{Cost - Residual Value}}{\text{Estimated Useful Life (Units)}} \times$ Units produced
- Note: If units used in final year do not add up to useful life, carry over.
- Used for natural resources (Depletion). dollar per ton
- **DR Depletion Expense − CR Accumulated Depletion, "PPE"**

Declining-Balance Method of Depreciation
- Double Declining Balance (DDB) Method:
- **Depreciation Rate (DDB)** $= \frac{1}{\text{Estimated Life (Years)}} \times 2$
- Note: Change 2 to 1.5 for 150% DDB.
- **Annual DEPR Expense** =
Depreciation Rate × Remaining Carrying Amount
- Note: If depreciation amount reduces carrying amount below residual value, reduce to residual value.

Impairment of PPE
- **Net fair value** = Fair value - cost of disposal.
- **Recoverable amount** = max{Net fair value, Value in use}
- If recoverable amount < carrying amount, recognise impairment loss.
- Impairment loss = Carrying amount - Recoverable amount.
- Impairment loss is recognised in income statement as non-operating expense.
- **DR Impairment Loss – CR Accumulated Impairment Losses, "PPE"**
- Accumulated Impairment Losses is a contra-asset account to "PPE" account in BL.
- Carrying amount in BL = Cost - Accumulated Depreciation - Accumulated Impairment Losses.

Disposal or Sale of PPE
- At disposal, remove 3 accounts: PPE, Accumulated Depreciation, Accumulated Impairment
- Gain/Loss = Sales Proceeds - Cost of Disposal - Carrying Amount.
- Gain/Loss of disposal is recognised in income statement as non-operating income/expense.
- If Gain, debit side. If Loss, credit side.
- **DR Accumulated Depreciation; Accumulated Impairment Loss; Cash – CR PPE; Gain on Disposal**
- **DR Accumulated Depreciation; Accumulated Impairment Loss; Loss on Disposal – CR PPE; Cash**
- **DR Accumulated Depreciation; Accumulated Impairment Loss; Cash – CR PPE**

Intangible Assets, IA
- Patents, trademarks, copyrights, franchises, licences, goodwill.
- Internally generated IA are not recognised in BL.
- Goodwill: Purchase price - fair market value of net assets acquired.
- **DR Inventory; Long-term operating assets...; Goodwill – CR Liabilities; Cash**

Amortisation of IA
- Straight-line Amortisation = $\frac{\text{Cost}}{\text{Estimated Useful Life}}$
- Intangibles with indefinite useful life are not amortised (goodwill/broadcast licence)
- **DR Amortisation Expense, "IA" – CR Accumulated Amortisation, "IA"**

Capitalise vs Expense
- Maintenance, repairs, and minor improvements which does not increase productivity are expensed.
- **DR Maintenance Expense – CR Cash**
- Major improvements, extensions, and replacements are capitalised.
- **DR PPE – CR Cash**
- For long term assets, capitalisation can be permanent or limited. - Limited capitalisation is capitalised in separate account and depreciated over useful life.
- Freehold land: Not depreciated. Leasehold land: Depreciated over lease term.
- R&D: Research (expensed) $\xrightarrow{\text{Tech Feasibility}}$ Development (capitalised)
- Targeted advertising: Capitalised if it increases future benefits. General advertising is expensed.

Equity
Issuance of Shares
- Par Value: Legal capital per share. No correlation to Market Value of share
- Premium: Amount received above par value. AKA Paid-in capital in Excess of Par
- **DR Cash (Market) – CR Ordinary Shares (Par); Paid-in Capital in Excess of Par, Ordinary Shares**
- **DR Cash (Market) – CR Preference Shares (Par); Paid-in Capital in Excess of Par, Preference Shares**
- Total Contributed Capital = OS + PS + Paid-in Capital in Excess of Par, OS and PS
- If no par value is stated, entire proceeds is credited to shares account.
- **DR Cash – CR Ordinary Shares**
- Non-cash Basis: Use fair value of asset received. If not available, use fair market value of shares issued.
- **DR "Asset" – CR Ordinary Shares; Paid-in Capital in Excess of Par, Ordinary Shares**

Treasury Shares
- Corporation buy back shares. Treasury Shares account is a contra-equity account. Normally has debit balance.
- No dividends will be payable for Treasury shares.
- Market price spent to acquire of treasury shares is recorded in Treasury Shares account.
- **DR Treasury Shares – CR Cash**
- Reissuing treasuring share above acquisition cost: - **DR Cash (Issued Price) – CR Treasury Shares (Cost); Paid-in Capital, Treasury Shares (Diff)**
- Reissuing treasuring share below acquisition cost (Treasury Share sufficient balance):
- **DR Cash (Issued Price); Paid-in Capital, Treasury Shares (Diff) – CR Treasury Shares (Cost)**
- Reissuing treasuring share below acquisition cost (Treasury Share insufficient balance):
- **DR Cash (Issued Price); Paid-in Capital, Treasury Shares (Bal); Retained Earnings (Overflow) – CR Treasury Shares (Cost)**
- Treasury shares amount is deducted from contributed capital + RE in BL, based on acquisition cost.
- Paid-in capital, Treasure Shares is ADDED to contributed capital + RE in BL.

Cash Dividends
- **DR Cash Dividends – CR Cash Dividends Payable** [Declare]
- **DR Retained Earnings– CR Cash Dividends** [Close]
- **DR Cash Dividends Payable – CR Cash** [Pay]
- Cash Dividends for Preference Shares: Non-cumulative and Cumulative
- Preference Shares: Fixed dividend rate, paid before ordinary shares, use par value.
- Non-cumulative: Only current year dividend is paid.
- Cumulative: Current year dividend + any unpaid dividend in arrears.
- PS and OS dividends are capped by Total dividends declared. - **DR PS Dividends; OS Dividends – CR Dividends Payable; Cash**

Share Dividends
- Small share dividends are assigned at market value. (Division: 20-25% of Total Issued Shares)
- **DR Share Dividends (Market) – CR Share Dividends Distributable (Par); Paid-in Capital in Excess of Par (Diff)**
- Large share dividends are assigned at par value.
- **DR Share Dividends (Par) – CR Share Dividends Distributable (Par)**
- Closing for both: - **DR Retained Earnings– CR Share Dividends**
- **DR Share Dividends Distributable – CR Ordinary Shares**

Misc
- **Share split:** - Par value is reduced by ratio, number of shares outstanding increased by same ratio.
- **Other Comprehensive Income:** - Exchange differences arising on translation of the equity of foreign subsidaries, unrealised gains/losses of FVTOCI financial assets
- Accumulated other Comprehensive Income is added to total contributed capital plus retained earnings.

Statement of Cash Flows
- Operating activities: Cash i/o primary business activities.
- Investing activities: Cash i/o purchase/sale of long-term assets.
- Financing activities: Cash i/o issuance/repurchase of shares, loans, payment of dividends.
- Cash received from dividend and interest: OA or IA
- Cash paid for interest and dividends: OA or FA
- Cash paid for income tax: OA
- Cash (begin) + OA + IA + FA = Cash (end)
- Ignore non-cash items e.g., depreciation, amortisation and estimated credit loss.
- SCF: Operating Act: Net; Investing Act: Net; Financing Act: Net; Net Increase in Cash; Beginning cash balance; End Cash Balance

Financial Statement Analysis
- Limitations: Lack of Comparability: differences in accounting classification, accounting estimates and methods. Do not contain all relevant information: customer satisfaction, operational data. Historical Data.
- Horizontal Analysis: Compare financial data over time.
- Vertical Analysis: Compare financial data within a single period.
- **Percentage of Change** = $\frac{\text{Current period amount - Base period amount}}{\text{Base period amount}} \times 100\%$
- **Trend Percent** = $\frac{\text{Current period amount}}{\text{Base period amount}} \times 100\%$

Liquidity Ratios
- Use Year End Figures.
- **Current Ratio** = $\frac{\text{Current Asset}}{\text{Current Liability}}$
- **Acid-Test (Quick) Ratio** = $\frac{\text{Current asset - Inventories - Prepayments}}{\text{Current Liabilities}}$

Efficiency Ratios
- **Fixed asset (PPE) turnover** = $\frac{\text{Net Sales}}{\text{Avg Net PPE}}$
- **Operating Cycle days** = # Days Sales in Inventory + Avg Collection Period [shorter better]
- **Purchases Turnover** = $\frac{\text{Net Purchases}}{\text{Avg Accounts Payable}}$
- **Num of Days Purchases in Acc Payable** = $\frac{365}{\text{Purchases Turnover}}$

Solvency Ratios
- **Debt Ratio** = $\frac{\text{Total Liability}}{\text{Total Asset}}$
- **Debt-to-Equity Ratio** = $\frac{\text{Total Liability}}{\text{Total Equity}}$
- **Time Interest Earned** = $\frac{\text{Income before interest and taxes (Operating Profit)}}{\text{Annual Interest Expense}}$ [higher better]

Profitability Ratios
- **Profit Margin (ROS)** = $\frac{\text{Net Income}}{\text{Net Sales}}$
- **Return of Assets** = $\frac{\text{Net Income}}{\text{Avg Total Assets}}$
- **Asset Turnover** = $\frac{\text{Net Sales}}{\text{Avg Total Assets}}$
- **Earnings per share (EPS)** = $\frac{\text{Net Income - Preference Dividends}}{\text{Avg Num of Outstanding Ordinary Shares}}$
- **Price-Earnings (PE) Ratio** = $\frac{\text{Market Value of Shares}}{\text{Net Income}} = \frac{\text{Price per share}}{\text{Earnings per share}}$

Cash Flow Ratios
- **Cash flow to Net Income Ratio** = $\frac{\text{Cash Flow from Operations}}{\text{Net Income}}$
- **Cash flow Adequacy Ratio** = $\frac{\text{Cash Flow from Operations}}{\text{Cash Paid for Capital Expenditure}}$

DuPont Framework
- $Profitability \times Efficiency \times Leverage$
- **Return of Equity** = Return on Sales × Asset Turnover × Assets-to-equity Ratio $= \frac{\text{Net Income}}{\text{Net Sales}} \times \frac{\text{Net Sales}}{\text{Avg Total Assets}} \times \frac{\text{Avg Total Assets}}{\text{Avg Total Equity}}$
- **Accounts Receivable Turnover** = $\frac{\text{Net Sales}}{\text{Average AR}}$
- **Average Collection Period** = $\frac{365}{\text{Accounts Receivable Turnover}}$
- **Inventory Turnover** = $\frac{\text{COGS}}{\text{Average Inventory}}$ (higher, better)
- **Num of Days Sales in Inventory** = $\frac{365}{\text{Inventory Turnover}}$ (shorter, better)