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ACCOUNTING A LEVEL NOTES 9706

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1 Financial Accounting

1.1 Preparation of financial statements

- ❖ *understand the need for & purpose of financial statements for trading & not-for profit organisations.*
- Financial statements provide information, about the financial position, financial performance & cash flows of an entity that is useful to a wide range of users in making economic decisions. **To meet that objective, financial statements provide information about an entity's:**
 - assets,
 - liabilities,
 - equity,
 - income & expenses (including gains & losses)
 - contributions by & distributions to owners (in their capacity as owners),
 - & cash flows.

1.1.1 Manufacturing businesses

- ❖ *prepare a manufacturing acc.*
- **Manufacturing acc.** – an acc. prepared at the end of a financial period to calculate the production cost of manufactured goods.
- The manufacturing acc. only includes information about the factory & the actual manufacturing process. All other non-production costs, i.e., administration, finance, & distribution costs, are recorded in the IS, just as they are for non-manufacturing organisations.
- The cost of production is calculated by **ADDING** the factory overheads to prime cost.
- **Factory profit:** percentage added to the factory cost of production to arrive at the transfer price.
- **Work in progress:** inventory of partly finished goods in the factory at any point in time.
- **Prime cost / direct cost:** the total of direct materials, direct labour, & direct expenses.
- **Factory overheads / indirect costs:** costs incurred from the running of the factory. This would include such things as indirect factory wages & depreciation of factory machinery.
- **Cost of production** = *prime cost + factory overheads*

| Name of manufacturing business | \$ | \$ |
|--|---------------|----------------|
| Manufacturing Account for the year ended 31 December 2013 | | |
| Cost of material consumed | | |
| Inventory of raw material | 38,000 | |
| Purchases of raw material | 76,000 | |
| Carriage on raw material | <u>2,000</u> | |
| | 116,000 | |
| Less closing inventory of raw material | <u>35,000</u> | 81,000 |
| Direct wages | | 43,000 |
| Direct expenses | | <u>14,000</u> |
| Prime cost | | 138,000 |
| Add Factory overheads | | |
| Indirect wages | 26,000 | |
| Factory rent and rates | 18,000 | |
| Factory insurance | 11,000 | |
| Factory fuel and power | 15,000 | |
| Factory general expenses | 23,000 | |
| Depreciation of factory machinery | <u>9,000</u> | <u>102,000</u> |
| | | 240,000 |
| Add opening inventory of work in progress | | <u>15,000</u> |
| | | 255,000 |
| Less closing inventory of work in progress | | <u>12,000</u> |
| Production costs of goods completed | | <u>243,000</u> |

❖ acc. for manufacturing profit & the treatment of unrealised profit.

| Television manufacturing company Manufacturing account for the year ended 30 April 2016 | | |
|--|----------|----------------|
| | \$ | \$ |
| Opening inventory of raw materials | | 42 000 |
| Add: purchases | 390 000 | |
| Add: carriage inwards | 26 000 | |
| | | <u>416 000</u> |
| | | 458 000 |
| Less: closing inventory | | (36 000) |
| Cost of raw materials consumed | | 422 000 |
| Add: direct wages | | 280 000 |
| Add: royalty (direct expenses) | | 40 000 |
| Prime cost | | <u>742 000</u> |
| Factory overheads | | |
| Indirect wages and labour \$(12 000 + 8 000) | 20 000 | |
| Depreciation: | | |
| Premises (50% × \$12 500) | 6 250 | |
| Motor vehicles (90% × \$8 000) | 7 200 | |
| Plant and machinery (80% × \$14 000) | 11 200 | |
| | | <u>44 650</u> |
| | | 786 650 |
| Opening inventory of work in progress | 50 000 | |
| Closing inventory of work in progress | (46 000) | 4 000 |
| Factory cost of finished goods | | <u>790 650</u> |
| Add: factory profit (20% × \$790 650) | | 158 130 |
| Transferred to income statement | | <u>948 780</u> |

| Television manufacturing company Income statement for the year ended 30 April 2016 | | |
|---|----------|----------------|
| | \$ | \$ |
| Sales | | 1 240 000 |
| Opening inventory of finished goods | 48 000 | |
| Add: transfer from manufacturing account | 948 780 | |
| | 996 780 | |
| Less: closing inventory | (62 400) | 934 380 |
| Gross profit | | 305 620 |
| Expenses: | | |
| Selling expenses | 42 000 | |
| Administrative expenses | 62 000 | |
| Depreciation: | | |
| Premises | 6 250 | |
| Motor vehicles | 800 | |
| Plant and machinery | 2 800 | |
| | | <u>113 850</u> |
| Net profit on trading | | 191 770 |
| Add: factory profit | 158 130 | |
| Adjustment for unrealised profit | (2 400) | 155 730 |
| Profit for the year | | <u>347 500</u> |

| Provision for unrealised profit account | | | |
|--|---------------|--|---------------|
| | \$ | | \$ |
| Closing balance c/d (62 400 + 120 × 20) | 10 400 | Opening balance b/d (48 000 + 120 × 20) | 8 000 |
| | | Income statement | 2 400 |
| | <u>10 400</u> | | <u>10 400</u> |

| | \$ |
|---------------------------------------|---------------|
| Inventory at transfer price | 62 400 |
| Less: provision for unrealised profit | <u>10 400</u> |
| | <u>52 000</u> |

- **Transfer price** – the production cost of completed goods plus a percentage mark-up.
- **Factory / manufacturing profit** – the difference between the transfer price & the production cost of completed goods.

- **Unrealised profit** – profit which is not recognised until the inventory is sold & a contract of sale has been negotiated.
- If a transfer price is used, finished inventories will include an element of unrealised profit. Unrealised profits should not be recognised within the SOFP as it contravenes both the realisation & prudence concepts & goes against the IAS 2. **A provision for unrealised profit is therefore used to:**
 - Remove the unrealised profit from the IS as profits are overstated by the amount of unrealised profit.
 - Remove the unrealised profit from the inventory of finished goods within the CAs on the SOFP so that inventories are not overvalued & are valued at cost & not cost plus a percentage mark-up.
- **Unrealised profit** = $\frac{\text{value of finished goods including unrealised profit}}{100 + \text{percentage of profit}} \times \text{percentage of profit}$

| Advantages | Disadvantages |
|--|---|
| production department continues to be treated as profit centre | not acceptable for external reporting |
| facilitates pricing | risk of an unrealistic view of profitability unless researched |
| cost of production department is better controlled | fixed percentage may fail to motivate managers, especially if bonuses are dependant |
| compare efficiency, reward efficient managers | |
| facilitates a system of responsibility accounting | time consuming to calculate |
| does not increase profits; identifies profit made by cost centres | |
| allows comparison of unit cost of goods manufactured to the cost of buying in completed products; helps evaluate a make / buy decision | |

1.1.2 Not for profit organisations

❖ Introduction

- Not for profit organisations exist to provide facilities for their members. Examples include: Sports & Social clubs, dramatic societies, & music clubs. Making profit is not their main purpose, although many carries on fundraising activities to provide more / better facilities for the members. The organisation is owned by all its members & not just one person / partnership. Records of money received & spent are usually kept by a club member who is often not a trained bookkeeper / accountant.
- **Income & expenditure acc.** the acc. prepared to determine if the non-profit making organisation has made a surplus / deficit. The equivalent of the IS.
- **Surplus of income over expenditure:** the equivalent of the profit for the year. The opposite will be a deficit of income over expenditure.
- **Accumulated fund:** the equivalent of capital for profit making organisation.
- **Receipts & payments acc.** the bank acc. of the non-profit-making organisation.
- **Subscriptions:** the amount paid by members to be part of the club / society. It is the main source of income for non-profit-making concerns & is the equivalent of sales for a profit-making organisation.

❖ prepare a subscription acc. for 'not for profit' organisations.

During the year ended 30 June 2014 cash received for subscriptions to the Dropkick Rugby Club amounted to \$1 860.

At 1 July 2013 subscriptions paid in advance amounted to \$140; at 30 June 2014 subscriptions paid in advance were \$80.

At 30 June 2014 subscriptions totalling \$60 remained unpaid.

It is club policy to write off any subscriptions that remain unpaid at the financial year end.

Required

Prepare a subscriptions account for the year ended 30 June 2014.

Answer

| Subscriptions account | | | | |
|-----------------------|-------|---------------------|-------|--|
| | \$ | | \$ | |
| I & E St | 1 980 | Balance b/d | 140 | \$1980 is shown as income on I & E Statement |
| Balance c/d | 80 | Cash | 1 860 | |
| | 2060 | I & E St (subs w/o) | 60 | \$60 is shown as an expense on I & E Statement |
| | | Balance b/d | 80 | |

❖ *accounting for donations & life membership schemes*

- **Donations:** money given freely to an organisation.
- Donations should be credited to an acc. open for the purpose. Expenditure on the project relating to the donation / legacy can be debited to the acc. Money received for special purposes should also be placed in a separate bank acc. to ensure that it is not spent on other things. At the end of the year, the balance on the donations / legacy acc. is listed under the accumulated fund in SOFP. The balance on the bank acc. may appear under CA as a separate item. some clubs also listed as a NCA in the SOFP.
- **Life membership:** the amount paid by a member of a club which entitles them to be members of the club for their lifetime.
- The amount received should be credited to a separate lifetime membership acc. & credit to the income an expenditure acc. in equal annual instalments over a period determined by the club committee.
- **Entry fees** – amount paid by a new member of the club when they joined the club.
- They may be credited to the income & expenditure acc. in full in the year member joins / they can be treated in the same way as life subscriptions.

The Old Jacks Bowling Club operates a life membership scheme. The life membership subscription is \$350. The balance standing on the life membership fund at 30 September 2013 was \$2940.

During the year ended 30 September 2014 five members took out life membership, paying \$1750. The club transfers ten per cent of the balance standing in the life membership fund at the end of each financial year to the income and expenditure account.

Required

Prepare a life membership fund for the year ended 30 September 2014.

Answer

| Life membership fund | | | | | |
|----------------------|--------------------------------|-------------|----------------|-------------|-------------|
| | | \$ | | | \$ |
| 30 September 2014 | Income and expenditure account | 469 | 1 October 2013 | Balance b/d | 2940 |
| 30 September 2014 | Balance c/d | 4221 | Year 2013/14 | Bank | 1750 |
| | | <u>4690</u> | | | <u>4690</u> |
| | | | 1 October 2014 | Balance b/d | 4221 |

Note

- \$469 is shown as an income on the income and expenditure account.
- \$4221 is shown as a non-current liability in the statement of financial position.

❖ *prepare a trading acc. for 'not for profit' organisations.*

| Non-trading Organisation (Name) | | | |
|--|--------------|--------------|---------------|
| Shop Trading Account for the year ended 31 December 2013 | | | |
| | \$ | \$ | \$ |
| Revenue (sales) | | | 22,500 |
| Less cost of sales | | | |
| Opening inventory | | 2,300 | |
| Purchases | | <u>7,400</u> | |
| | | 9,700 | |
| Less closing inventory | | <u>1,800</u> | |
| Cost of goods sold | | 7,900 | |
| Add Shop expenses | | | |
| Wages of shop assistant | 4,200 | | |
| Shop rent and rates | 3,600 | | |
| Depreciation of shop fittings | <u>1,100</u> | <u>8,900</u> | <u>16,800</u> |
| Profit on shop | | | <u>5,700</u> |

The treasurer of the Apes Rugby Club provides the following information for the year ended 31 May 2015 for a snack bar operated by the club:

- 1 June 2014: amount owed to supplier of fruit juices and snacks \$213
- 31 May 2015: amount owed to supplier of fruit juices and snacks \$186
- snack bar sales for the year \$27759
- amounts paid to the supplier of fruit juices and snacks during the year \$14621
- inventory of fruit juices and snacks 1 June 2014: \$165
- inventory of fruit juices and snacks 31 May 2015: \$191.

Required

Prepare a snack bar trading account for the year ended 31 May 2015.

Answer

| Apes Rugby Club | | \$ | \$ |
|---|-------|-----------|--------------|
| Snack bar trading account for the year ended 31 May 2015 | | | |
| Revenue | | | 27759 |
| Less Cost of sales | | | |
| Inventory 1 June 2014 | 165 | | |
| Purchases | 14594 | | |
| | 14759 | | |
| Inventory 31 May 2015 | (191) | | 14568 |
| Snack bar profit (to income and expenditure account) | | | 13191 |

Workings

| Trade payables account | | | | \$ | \$ |
|-------------------------------|-------------|-----------|-------------|---------------------------------------|-----------|
| | | \$ | | | \$ |
| 31 May 2015 | Cash | 14621 | 1 June 2014 | Balance b/d | 213 |
| 31 May 2015 | Balance c/d | 186 | 31 May 2015 | Café trading account (missing figure) | 14594 |
| | | 14807 | | | 14807 |
| | | | 1 June 2015 | Balance b/d | 186 |

❖ prepare a receipts & payments acc. for 'not for profit' organisations.

The following receipts and payments account for the year ended 31 October 2014 has been prepared by the treasurer of the Dantong Gardening Club:

| | \$ | | \$ |
|----------------------------------|-------------|---------------------------------|-------------|
| Bank balance 1 November 2013 | 146 | Payments to seed supplier | 407 |
| Seed sales | 612 | Purchase of gardening equipment | 2842 |
| Subscriptions received | 5040 | Meeting room rent | 750 |
| Show entry fees | 326 | Secretary's honorarium | 100 |
| Annual dinner dance ticket sales | 2250 | Speakers' expenses | 240 |
| Equipment hire | 420 | Bank charges | 28 |
| | | Advertising | 126 |
| | | Insurances | 348 |
| | | Postages and telephone | 142 |
| | | Dinner dance expenses | 1874 |
| | | Printing for dinner dance | 128 |
| | | Show prizes | 247 |
| | | Show expenses | 148 |
| | | Balance at bank 31 October 2014 | 1414 |
| | 8794 | | 8794 |

- ❖ prepare an income & expenditure acc. for 'not for profit' organisations.

| Non-trading Organisation (Name) | | |
|--|--------------|-----------------|
| Income and Expenditure Account for the year ended 31 December 2013 | | |
| | \$ | \$ |
| Income | | |
| Subscriptions | | 45,000 |
| Profit on shop | | 5,800 |
| Competition – entrance fees | 1,600 | |
| less expenses | <u>400</u> | 1,200 |
| Interest received | | 1,300 |
| * Profit on disposal of non-current assets | | <u> </u> |
| | | 53,300 |
| Expenditure | | |
| General expenses | 16,300 | |
| Rates and insurance | 12,000 | |
| Repairs and maintenance | 2,400 | |
| Loan interest | 600 | |
| * Loss on disposal of non-current assets | 300 | |
| Depreciation of equipment | <u>1,500</u> | <u>33,100</u> |
| ** Surplus for the year | | <u>20,200</u> |

Notes:

- * If only one asset was sold during the year only one of these items will appear.
- ** If the expenditure exceeds the income the resulting figure is described as a deficit.

- ❖ prepare a SOFP for 'not for profit' organisations.

| Non-trading Organisation (Name) | | Hutt River Dining Club | |
|--|---------------|--|---------------|
| Extract from statement of financial position at 31 December 2013 | | Statement of affairs at 1 January 2016 | |
| | \$ | | \$ |
| Accumulated fund | | Catering equipment | 8 000 |
| Opening balance | 67,500 | Inventory of food | 200 |
| Plus surplus for the year | <u>20,200</u> | Inventory of books | 1 100 |
| | <u>87,700</u> | Subscriptions owing | 180 |
| | | Bank | <u>1 520</u> |
| | | | 11 000 |
| | | Less: | |
| | | Trade payables for supplies of food | 40 |
| | | Subscriptions in advance | 60 |
| | | Accumulated fund at 1 January 2016 | <u>10 900</u> |

1.1.3 Limited companies

- ❖ prepare financial statements for a limited company in line w/ the relevant international accounting standards.

| XYZ Limited | | | Income statement for the year ended | |
|-------------------------------------|-----------------------|-----------------------|---|-------|
| | 2013 | 2012 | | \$ |
| | \$000 | \$000 | | |
| ASSETS | | | Revenue | |
| Non-current assets | | | Cost of sales | |
| Goodwill | 7,700 | 8,000 | Gross profit | _____ |
| Property, plant & equipment | <u>100,000</u> | <u>92,100</u> | Distribution costs | |
| | <u>107,700</u> | <u>100,100</u> | Administration expenses | _____ |
| Current assets | | | Profit / (loss) from operations | |
| Inventories | 1,000 | 800 | Finance costs | |
| Trade and other receivables | 5,000 | 4,000 | Profit / (loss) before tax | _____ |
| Cash and cash equivalents | <u>500</u> | <u>300</u> | Tax | |
| | <u>6,500</u> | <u>5,100</u> | Profit for the year | _____ |
| Total assets | <u>114,200</u> | <u>105,200</u> | | |
| EQUITY & LIABILITIES | | | | |
| Capital and reserves | | | | |
| Issued capital | 40,000 | 40,000 | | |
| Share premium | 2,000 | 2,000 | | |
| General reserve | 10,000 | 10,000 | | |
| Retained earnings | <u>52,500</u> | <u>43,000</u> | | |
| | <u>104,500</u> | <u>95,000</u> | | |
| Non-current liabilities | | | | |
| Bank loan | <u>5,000</u> | <u>5,200</u> | | |
| Current liabilities | | | | |
| Trade and other payables | 1,200 | 1,000 | | |
| Tax liabilities | <u>3,500</u> | <u>4,000</u> | | |
| | <u>4,700</u> | <u>5,000</u> | | |
| Total equity and liabilities | <u>114,200</u> | <u>105,200</u> | | |

- ❖ understand the nature & purpose of the financial statements of limited companies, & the regulatory framework in which they operate.

1.1.4 International Accounting Standards

- ❖ introduction to the concept

- **International accounting standards (IAS)**: standards created by the International Accounting Standards Board stating how particular types of transactions / other events should be reflected in the financial statements of a business entity. Usually adopted by companies listed on the Stock Exchange.
- **Why should the business comply w/ International Accounting Standards?**
 - Financial statements need to be understandable by different interested stakeholders.
 - Financial statements need to be relevant for decision making.
 - Financial statements need to be reliable.
 - Financial statements need to be comparable.
 - Accounting policies adopted are appropriate.
 - Accounting concepts/assumptions are adhered to.
 - To ensure fair representation & to show true & fair view.
 - Form the basis of auditor's opinion.

- ❖ explain & apply the main provisions of IAS 1 Presentation of financial statements.

- **A complete set of financial statements as set out in the standard, comprises:**
 - a SOFP at the end of the period
 - a statement of P/L & other comprehensive income for the period
 - a statement of changes in equity for the period
 - a statement of cash flows for the period (see IAS 7)
 - accounting policies & explanatory notes (see IAS 8).
- **It also sets out some general principles that must be adopted in those statements:**
 - a clear identification of the financial statements (IS, SOFP, etc.)
 - the name of the entity (e.g., XYZ Limited)
 - the period covered by the financial statements (year ended, etc.)
Note that statements are usually prepared on an annual basis. If this is not the case, the reason for the change (e.g., to a short accounting period) must be disclosed, as must the fact that the figures may not be comparable w/ previous data.
 - the currency used (e.g., £s, \$s)
 - the rounding used (e.g., if the statements are presented in thousands, millions).
- **Note that in an IS:**
 - it is presumed that the entity is operating on a continuing basis.
 - the information is in summarised form.
 - revenue is the sales revenue less sales returns.
 - cost of sales is the netted-off total of opening stock, purchases & closing stock, less purchases returns.
 - distribution costs include, e.g., delivery vehicle running costs, driver's wages, warehouse costs.
 - administration costs include office costs, heat, & light etc.
- IAS 1 does not prescribe the format of the SOFP / the order in which information is presented. E.g., NCAs can be presented before CAs / vice versa; CLs can be presented before NCLs, then equity, / vice versa. A net asset presentation (assets minus liabilities) is allowed.

- ❖ explain & apply the main provisions of IAS 2 Inventories (not long-term contracts)

- The term inventor refers to the unsold goods which the business holds. **Companies can have inventories in a variety of forms:**
 - Raw materials for the use in the subsequent manufacturing process
 - work in progress, partly manufactured goods
 - finished goods, completed goods ready for sale to customer.
 - finished goods which the business has bought for resale to customers.
- The principle of inventory valuation set out in IAS 2 is that inventories should be valued at the lower of cost & net realisable value.

- Note the exact wording. It is the lower of cost & net realisable value, not the lower of cost / net realisable value.
- The net realisable value is the estimated selling price in the normal course of business, less the estimated cost of completion & the estimated costs necessary to make the sale.
- Note that stock is never valued at selling price / net realisable value when that price is greater than the cost.

The ABC Stationery Company bought 20 boxes of photocopier paper at \$5 per box. Following a flood in their stockroom 5 of the boxes were damaged. They were offered for sale at \$3 per box. All were unsold at the end of the company's financial year.

At what price will they be valued in the annual accounts?

15 boxes will be valued at their cost of \$5 per box, a total of \$75.
 5 boxes will be valued at \$3 per box, a total of \$15. The total stock value will be \$90.

The Good Look Clothing Company carries a variety of stocks. At their year end they produce the following data:

| Item | Cost Price \$ | Net Realisable Value \$ | Selling Price (when new) \$ |
|--------------------|------------------|----------------------------|--------------------------------|
| New dresses | 1,000 | 1,500 | 2,000 |
| Children's clothes | 2,000 | 3,000 | 3,000 |
| Bargain fashions | 1,200 | 900 | 2,000 |

What will be the total stock value for the annual accounts?

| | |
|--------------------|--------------|
| | \$ |
| New dresses | 1,000 |
| Children's clothes | 2,000 |
| Bargain fashions | <u>900</u> |
| Total stock value | <u>3,900</u> |

Note that the valuation of the Bargain Fashions is the lowest of the three choices. This means that inventory valuation follows the **prudence** concept.

- **IAS 2 allows two different methods to be used for valuing inventory:**
 - **First in, first out (FIFO)** – assumes that the first items to be bought will be the first to be used, although this may not match the physical distribution of the goods. Valuation of remaining inventory will therefore always be the value of the most recently purchased items.
 - **Average cost (AVCO)** – a new average value (usually the weighted average using the number of items bought) is calculated each time a new delivery of inventory is received.
- IAS 2 does not allow for inventory to be valued using the last in, first out (LIFO) method.
- Inventories which are similar in nature & use to the company will use the same valuation method. Only where inventories are different in nature / use, can a different valuation method be used.
- Once a suitable method of valuation has been adopted by a company then it should continue to use that method unless there are good reasons why a change should be made. This is in line w/ the consistency concept.
- **Valuing work in progress & finished goods**
 - IAS 2 requires that the valuation of these two items includes not only their raw / direct material content, but also includes an element for direct labour, direct expenses, & production overheads.
 - **The cost of these two items therefore consists of:**
 - direct materials
 - direct labour
 - direct expenses
 - production overheads (costs to bring the product to its present location & condition)
 - other overheads which may be applicable to bring the product to its present location & condition.
 - **The cost of these two items excludes:**
 - abnormal waste in the production process
 - storage costs
 - selling costs
 - administration costs not related to production.

The XYZ Manufacturing Company manufactures wooden doors for the building trade. For the period under review it manufactured and sold 10,000 doors. At the end of the trading period there were 1,000 completed doors ready for despatch to customers and 200 doors which were half-completed as regards direct material, direct labour and production overheads.

Costs for the period under review were:

| | |
|----------------------------|---------------|
| | \$ |
| Direct material used | 20,000 |
| Direct labour | 5,000 |
| Production overheads | 8,300 |
| Non-production overheads | <u>10,000</u> |
| Total costs for the period | <u>43,300</u> |

Calculate the value of work in progress and finished goods:

| | |
|----------------------------------|-----------------------|
| Total units sold | 10,000 |
| Finished goods units | 1,000 |
| Half-completed units (200 x 0.5) | <u>100</u> |
| Production for the period | <u>11,100</u> |
| Attributable costs | \$33,300 |
| Cost per unit | 33,300 / 11,100 = \$3 |

Value of work in progress:
200 x 0.5 x \$3 = \$300

Value of finished goods:
1,000 x 3 = \$3,000

Notes:

- Overheads are excluded from the calculations.
- The value of finished goods (\$3,000) will be compared with their net realisable value when preparing the final accounts.

❖ explain & apply the main provisions of IAS 7 Statement of cash flows.

- **Cash:** includes cash in hand & bank deposits repayable on demand, less any overdrafts repayable on demand. 'On demand' is generally taken to mean within 24 hours.
- **The statement is divided into four categories:**
 - **Operating activities** – the main revenue-generating activities of the business, together w/ the payment of interest & tax
 - **Investing activities** – the acquisition & disposal of long- term assets & other investing activities
 - **Financing activities** – receipts from the issue of new shares, payments for the redemption of shares & changes in long-term borrowings.
 - At the end of the statement, the net increase in cash & cash equivalents is shown, both at the start & end of the period under review. **For this purpose:**
 - Cash is defined as cash on hand & demand deposits.
 - Cash equivalents are defined as short-term, highly liquid investments that can easily be converted into cash. This is usually taken to mean money held in a term deposit acc. that can be withdrawn within three months from the date of deposit.
 - Bank overdrafts – usually repayable on demand – are included as part of the cash & cash equivalents.
- **The cash flow from operating activities is calculated as:**
 - profit from operations (profit before deduction of tax & interest)
 - add depreciation charge for the year.
 - add loss on sale of NCAs (/ deduct gain on sale of NCAs)
 - less: investment income
 - add decrease in inventories, decrease in receivables & increase in trade payables.

OR

 - deduct increase in inventories, increase in receivables & decrease in trade payables.
 - less: interest paid.
 - less: taxes paid on income (usually corporation tax).
- **The cash flow from investing activities is calculated as:**
 - inflows from proceeds from sale of NCAs, both tangible & intangible, together w/ other long-term NCAs
 - outflows from cash used to purchase NCAs, both tangible & intangible, together w/ other long-term NCAs
 - interest received.

- dividends received.
- **The cash flow from financing activities is calculated as:**
 - inflows from:
 - cash received from the issue of share capital (including share premium)
 - raising / increasing loans
 - Equity dividends paid.
- **IAS 7 allows some flexibility in the way in which cash flow statements can be presented:**
 - Cash flows from interest & dividends received & paid, can be shown as operating / investing / financing activities. Whichever is chosen must be applied consistently.
 - Cash flows arising from taxes on income are always classified as operating activities unless they can be specifically identified w/ financing &/ investing activities.

| | \$ |
|--|----------------------|
| Profit from operations (before tax and interest) | 50,000 |
| Adjustments for: | |
| Depreciation charge for the year | 12,000 |
| Increase in inventories | (3,000) |
| Decrease in trade receivables | 2,000 |
| Increase in trade payables | <u>4,000</u> |
| Cash (used in)/from operations | 65,000 |
| Interest paid (during the year) | (5,000) |
| Tax paid (during the year) | <u>(8,000)</u> |
| Net cash (used in)/from operating activities | <u>52,000</u> |
| Statement of cash flows for the year ended 31 December 2013 | |
| | \$ |
| Net cash (used in)/from operating activities | 52,000 |
| Cash flows from investing activities: | |
| Purchase of non-current assets | (20,000) |
| Proceeds from the sale of non-current assets | 1,000 |
| Interest received | 2,000 |
| Dividends received | <u>500</u> |
| Net cash (used in)/from investing activities | (16,500) |
| Cash flows from financing activities: | |
| Proceeds from issue of share capital (this would include both the share and share premium amounts) | 80,000 |
| Repayment of long-term borrowings | (30,000) |
| Dividends paid | <u>(4,000)</u> |
| Net cash (used in)/from financing activities | <u>46,000</u> |
| Net increase/(decrease) in cash and cash equivalents | 81,500 |
| Cash and cash equivalents at the beginning of the year | <u>10,000</u> |
| Cash and cash equivalents at the end of the year | <u>91,500</u> |

- **What are the uses of statement of cash flows?**
 - Because a standard format is used, significant components of cash flows can be identified.
 - The statement highlights & concentrates on cash inflows & outflows. Liquidity is important for the short-term survival of all businesses; this is of great interest to creditors, shareholders, workers, etc.
 - The statement provides information that enables users to assess the efficiency (for inefficiency) of how cash & cash equivalents have been used during the financial period.
 - The statement explains why profits & losses are different from changes in cash & cash equivalents.
 - The statement shows sources of internal financing & the extent to which the business has relied on external financing.
 - It reveals information that is not disclosed in the IS. This helps in financial planning.
 - It provided information that helps to assess the liquidity, viability, & financial adaptability of the business.
 - It allows comparisons to be made year on year / inter-firm. However, it should be kept in mid that the statement is a historical document. It is prepared using figures from the previous years.

- It helps provide information that will assist in the projection of future cash flows.

| Note: | |
|-------------------|----------------------|
| Acc. | Section |
| Interest paid | Operating activities |
| Interest received | Investing activities |
| Dividend received | |
| Dividend paid | Financing activities |

❖ *explain & apply the main provisions of IAS 8 Accounting policies*

- **IAS sets out four qualitative characteristics of financial statements that make them useful to users:**
 - **Understandability** – the information is readily understandable by users.
 - **Relevance** – the information influences the economic decisions of users.
 - **Reliability** – the information is free from material error & bias.
 - **Comparability** – the information enables comparisons over time to identify & evaluate trends.
- **The standard requires compliance w/ a series of accounting concepts:**
 - **Going concern** – the presumption is that the entity will not cease trading in the foreseeable future. (This is generally taken to mean within the next 12 months).
 - **Accrual basis of accounting** – except for the statement of cash flows, the information is prepared under the accruals concept; income & expenditure are matched to the same accounting period.
 - **Consistency** – the presentation & classification of items in the financial statements is to be consistent from one period to the next.
 - **Materiality & aggregation** – classes of similar items are to be presented separately in the financial statements. This would apply to a grouping i.e., CAs.
 - **Offsetting** – this is generally not permitted for both assets & liabilities, & income & International expenditure. E.g., it is not permitted to offset a bank overdraft w/ another bank acc. not in overdraft.
 - **Comparative information** – there is a requirement to show the figures from the previous period for all the amounts shown in the financial statements. This is designed to help users make relevant comparisons.
 - **Business entity** – every business is regarded as having an existence separate from that of its owner, thus only the transactions of the business should be recorded & *not* the owner's private transactions.
 - **Historic cost**: transactions are recorded at their cost to the business.
 - **Prudence/conservation**: profits & assets should not be overstated & losses should be provided for as soon as they are recognised.
 - **Realisation**: revenue is recognised / accounted for by the seller when it is earned whether cash has been received from the transaction / not.
 - **Duality**: this recognises that there are two aspects for each transaction – represented by debit & credit entries in acc.
 - **Matching/Accrual** – the IS should only include the income earned & expenses incurred for the current financial year.
 - **Substance over form**: the economic substance of the transaction must be recorded in the financial statements rather than its legal form to represent a true & fair view of the affairs of the business.

❖ *explain & apply the main provisions of IAS 10 Events after the reporting period.*

- These are events, favourable / unfavourable, that occur between the SOFP date, & the date on which the financial statements are authorised for issue. They may occur because of information which becomes available after the end of the year, & therefore need to be disclosed in the accounts.
- **Adjusting events**
 - An adjusting event is defined as an event after the reporting period that provides further evidence of conditions that existed at the end of the reporting period.
 - **Examples of adjusting events include:**
 - the settlement, after the SOFP date, of a court case that confirms that a present obligation existed at the date of the SOFP.
 - the determination, after the date of the SOFP, of the purchase price / sale price of a NCA bought / sold before the year end.
 - inventories where the net realisable value falls below the cost price
 - assets where a valuation shows that impairment is required.

- trade receivables where a customer has become insolvent.
 - the discovery of fraud / errors which show the financial statements to be incorrect.
 - **Non-adjusting events**
 - A non-adjusting event is defined as an event after the reporting period that is indicative of a condition that arose after the end of the reporting period. No adjustment is made to the financial statements for such events.
 - **Examples of non-adjusting events include:**
 - major purchase of assets
 - losses of production capacity caused by fire, floods, / strike action by employees.
 - announcement / commencement of a major reconstruction of the business
 - changes in tax rates
 - entering significant commitments / contingent liabilities
 - commencing litigation based on events arising after the date of the SOFP.
 - major share transactions.
 - **Specific cases**
 - **There are three situations in addition to the above that require consideration:**
 - Dividends declared / proposed after the date of the SOFP are no longer recognised as a liability in the SOFP. They are non-adjusting events & are now to be shown in a note to the financial statements.
 - If, after the date of the SOFP, the directors determine that the business intends to liquidate / cease trading & that there is no alternative to this course of action, then the financial statements cannot be prepared on a going-concern basis.
 - Entities must disclose the date when the financial statements were authorised for issue & who gave that authorisation. If anyone had the power to amend the financial statements after their authorisation, then this fact must also be disclosed.
- ❖ *explain & apply the main provisions of IAS 16 Property, plant, & equipment.*
- **The issues covered by the standard are:**
 - recognition of the assets
 - determination of their carrying amounts.
 - their depreciation charges.
 - their impairment losses.
 - **There are several definitions:**
 - **Property, plant, & equipment** – tangible assets held for use in the production / supply of goods & services, for rental to others & for administrative purposes, which are expected to be used for more than a period of more than one year.
 - **Depreciation** – the systematic allocation of the depreciable amount of an asset over its useful life
 - **Depreciable amount** – the cost / valuation of the asset, less any residual amount
 - **Useful life** – the length of time / number of units, for which an asset is expected to be used.
 - **Residual value** – the net amount the entity expects to obtain for an asset at the end of its useful life, after deducting the expected costs of disposal.
 - **Fair value** – the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction.
 - **Carrying amount** – the amount at which an asset is recognised in the SOFP, after deducting any accumulated depreciation & impairment loss.
 - a. **Recognition of the asset in the financial statements**
 - **The standard states that an item of property, plant & equipment is to be brought into the financial statements when:**
 - it is probable that future economic benefits will flow to the entity.
 - the cost of the asset can be reliably measured.
 - b. **Additional costs associated w/ the asset.**
 - **The standard provides the following guidelines to assist w/ the treatment of additional expenditure:**
 - Day-to-day costs of servicing / repairing the asset should be charged as expenditure in the IS.
 - Where parts (e.g., the seats in an aeroplane) require replacement at regular intervals, these costs can be recognised as part of the carrying amount of the asset – subject to the rules of asset recognition above.

- Where the asset requires regular inspections for the asset to continue operating, the costs of such inspections can also be recognised in the carrying amount, again subject to the rules of recognition above.
- c. **Costs which can be included in the SOFP when the asset is purchased.**
 - **The statement provides that the following can be included as part of the cost in the SOFP:**
 - the initial purchase price.
 - any import duties, taxes directly attributable to bring the asset to its present location & condition.
 - the costs of site preparation
 - initial delivery & handling costs
 - installation & assembly costs
 - cost of testing the asset.
 - professional fees (e.g., architects / legal fees).
 - **The statement also provides guidance on which costs must be excluded as part of the cost in the SOFP:**
 - any general overhead costs
 - the start-up costs of a new business / section of the business
 - the costs of introducing a new product / service (e.g., advertising)
- d. **Valuation of the asset**
 - **Once the asset is acquired, the entity must adopt one of two models for its valuation:**
 - **Cost model** – cost less accumulated depreciation.
 - **Revaluation model** – the asset is included (carried) at a revalued amount. This is taken as its fair value less any subsequent depreciation & impairment losses. Revaluations are to be made regularly to make sure that the carrying amount does not differ significantly from the fair value of the asset at the date of the SOFP.
 - **The standard provides further guidance on the use of fair values in the revaluation model:**
 - land & buildings – usually determined from a valuation by professional valuers.
 - plant & equipment – market value.
 - **Guidance is also given on the frequency of the revaluations:**
 - if changes are frequent, annual revaluations must be made.
 - where changes are insignificant, revaluations can be made every three to five years.
 - If an asset is revalued, then every asset in that class must be revalued. Thus, if one parcel of land & buildings is revalued then all land & buildings must be revalued. Any surplus on revaluation is transferred to the equity section of the SOFP as part of the revaluation reserve. Any loss on revaluation is recognised as an expense in the IS.
- e. **Depreciation**
 - The expected life & residual value of the asset are to be reviewed at least annually. **If there is a difference from previous estimates this must be recognised as a change in an estimate under IAS 8 (Accounting policies, changes in accounting estimates & errors).**
 - Depreciation must continue to be charged even if the fair value of an asset exceeds its carrying amount.
 - Depreciation need not be charged when the residual value is greater than the carrying amount.
 - Depreciation is to be included as an expense in the IS.
 - **When considering the useful life of an asset the following should be considered:**
 - expected usage of the asset, its capacity / output.
 - expected physical wear & tear.
 - technical / commercial obsolescence
 - legal / other limits imposed on the use of the asset.
 - Freehold land is not to be depreciated, other than in the case of a mine / quarry. It is carried in the SOFP at cost.
 - Land & buildings are to be separated out. The element of land is not depreciated, but buildings are.
 - **Allowable methods of depreciation are:**
 - straight line
 - diminishing / reducing balance
 - units of output.
 - The entity must choose a method of depreciation which reflects the pattern of its usage over its useful economic life. Ideally, once the entity has decided on the method it should not be changed. It is possible,

though, to review the method, & if a change in the pattern of usage of the asset has occurred, the method of depreciation should be changed to reflect this. This type of change comes under IAS 8.

f. Derecognition

- This occurs when the asset is sold, / no further future economic benefits are expected from its use. Any P/L on disposal is shown in the IS.

g. Disclosure in the financial statements

- **For each class of property, plant, & equipment the financial statements must show:**
 - the basis for determining the carrying amount.
 - the depreciation method used.
 - the useful life / depreciation rate
 - the gross carrying amount at the beginning & end of the accounting period.
 - the accumulated depreciation & impairment losses at the beginning & end of the accounting period
 - additions during the period
 - disposals during the period
 - depreciation for the period.
- These are likely to be shown as a fixed asset schedule & included as a note to the financial statements.
- **Schedule of NCAs:**

DEF plc
Schedule of non-current assets at 31 December 2014

| | Premises \$000 | Plant and machinery \$000 | Motor vehicles \$000 | Total \$000 |
|-----------------------|-------------------|---------------------------------|----------------------------|----------------|
| Cost | | | | |
| At 1 January 2013 | 600 | 320 | 250 | 1170 |
| Revaluation | 300 | | | 300 |
| Additions | - | 115 | 120 | 235 |
| Disposals | - | (85) | (90) | (175) |
| At 31 December 2014 | 900 | 350 | 280 | 1530 |
| Depreciation | | | | |
| At 1 January 2013 | 60 | 145 | 115 | 320 |
| Revaluation | (60) | | | (60) |
| Provided in the year | - | 35 | 90 | 125 |
| Disposals | - | (15) | (30) | (45) |
| At 31 December 2014 | - | 165 | 175 | 340 |
| Net book value | | | | |
| At 31 December 2014 | 900 | 185 | 105 | 1190 |
| At 31 December 2013 | 540 | 175 | 135 | 850 |

❖ *explain & apply the main provisions of IAS 36 Impairment of assets*

- This standard seeks to make sure that an entity's assets are not carried at more than their recoverable amount, & to define how the recoverable amount is determined.
- **There is a series of key definitions:**
 - **Impairment loss** – difference between the carrying amount and recoverable amount of an asset.
 - **Carrying amount** – the amount at which the asset is recognised in the SOFP, after deducting accumulated depreciation & accumulated impairment losses.
 - **Recoverable amount** – the higher of the asset's fair value less net selling price & its value in use.
 - **Fair value** – the amount for which an asset could be exchanged, / a liability settled between knowledgeable, willing parties in an arm's length transaction. **The standard provides guidance:**
 - The best evidence of fair value is a binding sale agreement less disposal costs.
 - If there is an active market as evidenced by buyers, sellers, & readily available prices, it is permissible to use the market price less disposal costs.
 - Where there is no active market, the entity can use an estimate based on the best information available of the selling price less the disposal costs.
 - Costs of disposal are direct costs only, e.g., legal / removal expenses.
 - **Value in use** – the present value of the estimated future cash flows expected to be derived from an asset. This is usually calculated using discounted cash flow techniques. **The entity should consider the following:**
 - estimated future cash flows from the asset.
 - expectations of possible variations, either in amount / timing of the future cash flows
 - current interest rates
 - the effect of uncertainty inherent in the asset.

a. Identifying an asset that may be impaired.

- At the end of each reporting period, an entity is required to assess whether there is any indication that an asset may be impaired (i.e., its carrying amount may be higher than its recoverable amount). Goodwill should be tested for impairment annually.
- **Indications of impairment**
 - **External sources:**
 - market value declines
 - negative changes in technology, markets, economy, / laws
 - increases in interest rates.
 - net assets of the company higher than market capitalisation.
 - **Internal sources:**
 - obsolescence / physical damage
 - asset is idle.
 - worse economic performance than expected.
- An indication of impairment indicates that the asset's useful life, depreciation method, / residual value may need to be reviewed & adjusted.

b. Recognition of an impairment loss

- An impairment loss is recognised whenever the recoverable amount is below the carrying amount.
- The impairment loss is recognised as an expense in the IS unless it relates to a revalued asset. For revalued assets, the impairment loss is treated as a revaluation decrease.
- Depreciation for future periods must be adjusted.

c. Disclosure

- Impairment losses recognised / reversed should be disclosed by class of asset.
- **If an individual impairment loss is material, the following must be disclosed:**
 - the events & circumstances resulting in the impairment loss.
 - the amount of the loss / reversal
 - details of the individual asset & the class to which it relates.
- **If impairment losses recognised / reversed are material in total to the financial statements, disclose:**
 - the main classes of assets affected.
 - the main events & circumstances involved.

d. Example asset values in SOFP

- An entity has three NCAs in use at the date of its SOFP. **Details of their carrying values & recoverable amounts are set out below:**

| Asset | Carrying amount \$ | Fair value less costs to sell \$ | Value in use \$ |
|-------|-----------------------|--|--------------------|
| 1 | 30000 | 10000 | 50000 |
| 2 | 15000 | 12000 | 14000 |
| 3 | 20000 | 15000 | 9000 |

- **In the SOFP, they should be shown at the following values:**

| Asset | Value in statement of financial position \$ | Reason |
|-------|---|--|
| 1 | 30000 | The carrying amount is less than the recoverable amount, its value in use. |
| 2 | 14000 | The carrying amount is greater than the recoverable amount, the highest of which is its value in use. |
| 3 | 15000 | The carrying amount is greater than the recoverable amount, the highest of which is its fair value less costs to sell. |

- ❖ *provisions of IAS 37 Provisions, contingent liabilities, & contingent assets.*
 - The objective of the standard is to make sure that appropriate recognition criteria & measurement bases are applied to provisions, contingent liabilities, & contingent assets. Enough information must be disclosed in the notes to the financial statements to enable users to understand their nature, timing, & amount.
 - **There are a series of key definitions:**
 - **Provision** – a liability of uncertain timing / amount
 - **Liability** – a present obligation because of past events, where settlement is expected to result in an outflow of resources (payment)
 - **Contingent liability** – a possible obligation depending on whether some uncertain future event occurs, / a present obligation, but payment is not probable, / the amount cannot be reliably measured.
 - **Contingent asset** – a possible asset that arises from past events & whose existence will be confirmed only by the occurrence of one / more uncertain future events not wholly within the control of the entity.
 - a. **Recognition of a provision**
 - Recognition of a provision / a contingent liability depends on the probability of liability resulting.
 - **A provision must be recognised if:**
 - a present obligation exists because of a past event.
 - payment is probable (more likely than not)
 - the amount can be reliably estimated.
 - An obligating event is an event that creates a legal / constructive obligation &, therefore, results in an entity having no realistic alternative but to settle the obligation.
 - A possible obligation (a contingent liability) is disclosed, but not accrued.
 - Where the possibility of payment is remote, no accrual / disclosure is required.
 - The amount recognised as a provision should be the best estimate at the date of the SOFP of the expenditure required to settle the present obligation.
 - b. **Contingent asset**
 - These should not be recognised in the financial statements but should be disclosed where an inflow of economic benefits is probable, & the amount is material. Where the inflow of economic benefits is possible / remote, there should be no recognition & no disclosure.
 - c. **Example of recognition of provision / contingent liability**

A company manufactures shampoo. A customer has sued the company claiming that the shampoo has caused burns to her head. The customer is claiming damages of \$100,000. Lawyers have advised the company that it is possible that the customer may win the legal case.

As the outcome of the case is uncertain (i.e. a **possible** successful claim for damages), the company is not certain to be liable, i.e. this is a contingent liability. In these circumstances, the company should not make a provision, but should disclose details of the case in its notes to the accounts. If the lawyer was of the opinion that it was probable that they would lose the legal case, provision for the damages should be made in the financial statements.

| | Liability | Assets |
|-------------------------------------|-------------------------------|-------------------------------|
| Probable (more than 75% likelihood) | Amount in Financial Statement | Notes to Financial Statements |
| Possible (less than 50% likelihood) | Notes to Financial Statements | Nil |
| Remote (unlikely) | Nil | Nil |

- ❖ *explain & apply the main provisions of IAS 38 Intangible assets*
 - This standard covers the accounting treatment for intangible assets.
 - An intangible asset is defined as an identifiable non-monetary asset w/o physical substance. **The three critical attributes of an intangible asset are:**
 - must be identifiable.
 - must be controlled by the entity.
 - the entity must be able to obtain future economic benefits from the asset.
 - Intangible assets may be self-produced / purchased.
 - a. **Examples of intangible assets**
 - **The following is not an exhaustive list, but gives some examples of intangible assets:**
 - patented technology, e.g., computer software, databases, trade secrets
 - trademarks
 - customer lists
 - marketing rights
 - franchise agreements.

b. Recognition

- **The standard requires an entity to recognise an intangible asset, whether purchased / self-created (at cost) if:**
 - it is probable that the future economic benefits attributable to the asset will flow to the entity.
 - the cost of the asset can be reliably measured.
- If an intangible asset does not meet both the definition of, & the criteria for, recognition, IAS 38 requires the expenditure to be recognised as an expense when it is incurred.

c. Specific cases

- The standard details initial recognition criteria & accounting treatment for specific cases as follows.
 - **Research & development costs**
 - Research costs – charge all to the IS.
 - Development costs may be capitalised (as an intangible asset) only after the technical & commercial feasibility of the asset for sale / use have been established. The entity must demonstrate how the asset will generate future economic benefits.
 - **Internally generated brands, customer lists etc.**
 - These should not be recognised as assets.
 - **Computer software**
 - If purchased, this may be capitalised. If internally generated, whether for sale / for use, it should be charged as an expense until technical & commercial feasibility has been established.
 - **Other types of cost**

The following items must be charged to expenses when incurred, not classed as intangible assets:

 - internally generated goodwill
 - start-up costs
 - training costs
 - advertising & promotional costs
 - relocation costs.

d. Measurement after acquisition

- Similarly, to tangible NCAs, an entity must choose the cost model / the revaluation model for each class of intangible asset.
- **Cost model**
 - After initial recognition, intangible assets should be carried at cost less accumulated amortisation (depreciation) & impairment losses.
- **Revaluation model**
 - Intangible assets may be carried at a revalued amount (based on fair value) less any subsequent amortisation & impairment losses, only if fair value can be determined by reference to an active market. In the case of intangible assets, it is unlikely that such markets will exist.

e. Classification based on useful life.

- Intangible assets are classified as having an indefinite life / a finite life.
- **Indefinite life**
 - This is where there is no foreseeable limit to the period over which the asset is expected to generate net cash inflows for the entity. An intangible asset w/ an indefinite useful life should not be amortised.
- **Finite life**
 - This is where there is a limited period of benefit to the entity. In these circumstances, the cost less residual value should be amortised on a systematic basis over that life, reflecting the pattern of benefits.

f. Disclosure

- **For each class of intangible asset, the following should be disclosed:**
 - useful life / amortisation rate
 - amortisation method
 - gross carrying amount.
 - accumulated amortisation & impairment losses
 - reconciliation of the carrying amount at the beginning & end of the reporting period.
 - the basis for determining that an intangible asset has an indefinite life.
 - description & carrying amount of individually material intangible assets.

❖ explain the need for an ethical framework in accounting.

- Financial statements are used by a variety of groups for a variety of reasons. The framework surrounding IAS identifies the typical user groups of accounting statements. The table below identifies the user groups (stakeholders) & gives likely reasons for the user groups to refer to financial statements.

| main users | reasons for use |
|------------|---|
| investors | <ul style="list-style-type: none"> • to assess past performance as a basis for future investment |
| employees | <ul style="list-style-type: none"> • to assess performance as a basis of future wage & salary negotiations • to assess performance as a basis for continuity of employment & job security |
| lenders | <ul style="list-style-type: none"> • to assess performance in relation to the security of their loan to the company |
| suppliers | <ul style="list-style-type: none"> • to assess performance in relation to receiving payment of their liability |
| customers | <ul style="list-style-type: none"> • to assess performance in relation to the likelihood of continuity of trading |
| government | <ul style="list-style-type: none"> • to assess performance in relation to compliance w/ regulations & assessment of taxation liabilities |
| public | <ul style="list-style-type: none"> • to assess performance in relation to ethical trading |

1.1.5 Auditing & stewardship of limited companies

❖ the role of the auditor.

- **Auditors** – examine the financial records & financial statements of a business. An audit is carried out by staff headed by a qualified accountant. **Duties which the auditor would carry out during an audit:**
 - Checking financial data (1). Examining accounts (1) & systems (1). Reviewing accuracy of records (1) & reports (1). Reviewing security of assets (1). Check trade & other receivables/payables (1). Attend stock counts (1) Recommending changes after review (1). Ensuring procedures are adhered to (1). Produce audit report (1). Comment on true & fair view (1). Independent check (1). Ensure company directors comply w/ international accounting standards & company law (1). Verify that the records do not have any material errors (1).
- **External auditors** – independent of the business. In the case of limited companies' external auditors are appointed by the shareholders. Their role is:
 - Auditor provides reassurance to shareholders that the accounts are true records of the business activities.
 - Auditor expresses his /her opinion whether the financial statements give a true & fair view.
 - carry out checks to ensure that the directors have acted in the best interest of the shareholders.
 - To prevent fraud
- **Internal auditors** – staff members who scrutinise the internal records of the business. Their main role is to help add value to the company & help the organisation achieve its strategic objectives. Their key roles are therefore:
 - evaluate & assess the control systems in place within the company.
 - evaluate information security & risk within the company.
 - consider & test the anti-fraud measures in place in the company.
 - overall, help to ensure that the company meets its strategic & ethical objectives.
- **Auditor's report:** a report prepared by the auditors of a limited company. It provides a statement to the shareholders as to whether the annual financial statements provide a true & fair view of the company's activities.
- **Characteristics of an auditor's report:**
 - a report to shareholders
 - prepared by an independent person.
 - prepared by a suitably qualified person.
 - prepared following an inspection of the company's books.
 - contains the auditor's stated opinion as to whether the financial statements give a true & fair view.
- **Unqualified auditors' report** – where the auditors are of the opinion that the financial statements give a true & fair view.
- **Qualified auditors' report** – where the auditors express some reservations which mean that they have concluded that the financial statements do not give a true & fair view.
- A qualified audit report which indicates that the auditor is not satisfied (1) that the financial statements audited present a true & fair view. (1) This is a safeguard of the shareholders' interests (1) as it signals that the statements are incorrect in the opinion of the external independent examiner. (1) This may also put potential shareholders off investing in the business (1)

| Internal auditor | External auditor |
|---|--|
| Internal auditors are employees | External auditors are external independent persons |
| Review the business practices & internal control system to prevent mistakes | Examine the financial statements & give opinion whether the financial statements present a true & fair view & comply w/ legal requirements |
| Report to the senior management | Report to shareholders |

❖ *the role & purpose of shareholders*

- **Shareholders** – the owners of the share capital of a limited company.
- **Duties & responsibilities of a shareholder:**
 - Elect directors at Annual General Meeting
 - Giving instructions to directors by voting on key issues at the AGM
 - Appoint the company's auditor.
 - Approve dividends proposed.
 - Approve charitable donations by the company.
 - Request special meetings for important matters / resolve disagreements.
 - Fund the company.

❖ *the role of directors & their responsibilities to shareholders (stewardship)*

- **Stewardship:** the responsibility which managers/directors have for the management of resources (1) within a business on behalf of the owners/shareholders. (1)
- **Directors** – officials appointed by the shareholders to manage the company for them. A director can, but does not have to, be a shareholder.
- **Director's report:** a report prepared by the directors of a plc at the end of the financial year. The Companies Act specifies which items must be included in such a report.
- **How directors carry out their role of stewardship within a limited company:**
 - The directors manage the company on behalf of the owners (shareholders) (1). They are accountable & report to the owners (shareholders) (1)
- **Directors have a responsibility to:**
 - keep proper accounting records that allow financial statements to be prepared in accordance w/ relevant company's legislation.
 - safeguard business assets
 - select the accounting policies to be applied to the business books of acc.
 - state whether international standards have been applied.
 - report on the state of the company's affairs
 - ensure that the financial statements are signed by two members of the board of directors.

❖ *the importance of a true & fair view in respect of financial statements.*

- **True & fair view** – a principle stating that the IS should show a 'true & fair view' of the P/L; the SOFP should show a 'true & fair view' of the business's financial position.
- The word **true** may be explained in simple terms as meaning that, if financial statements indicate that a transaction has taken place, then it has taken place.
- The word **fair** implies that transactions, / assets, are shown in accordance w/ accepted accounting rules of cost / valuation.
- **Importance to the shareholders of the auditors providing a true & fair view of the company's accounts:**
 - True & fair view means that the statements are free from misstatements (1) & faithfully represent the financial performance & position of Soames Limited (1).
 - The shareholders will have confidence (1) since the report will confirm the accuracy of the statements (1) & the professional opinion should be trusted due to the expertise (1) & independence (1) of the auditor.
 - Share prices might increase (1). The shareholders may be encouraged to invest more / not sell their shares (1)
 - Lenders may be more willing to lend to the business which will improve potential profits for the shareholders (1).
- The auditor must verify that financial statements agree w/ company records. **They must confirm that:**

- results shown in ISs are truly & fairly stated.
- fundamental accounting concepts have been applied.
- the accounting convention followed in the preparation of financial statements is stated.
- the preparation of financial statements is consistent w/ previous periods.
- assets exist & are owned by the company & are stated at amounts that are in accordance w/ accepted accounting policies.
- all liabilities are included & stated at amounts that are in accordance w/ accepted accounting policies.
- **Window dressing** describes attempts by directors of a company to make a SOFP to show the financial position of the company to be better than it really is.
- The accounting principle of substance over form is one accounting principle intended to give a true & fair view. The Companies Act sets out rules for the presentation of company accounts. If accounts prepared in accordance w/ those rules do not provide sufficient information to meet the requirement to present a true & fair view:

1.2 Business purchase & merger

- ❖ *understand the nature & purpose of the merger of different types of businesses.*
 - **Merger**: where two / more independent businesses combine their assets & form a completely new business.
 - **There are three possible situations of a merger**:
 - the merger of two sole traders to form a partnership.
 - the purchase of the business of a sole trader by a limited company
 - the purchase of a partnership by a limited company
 - **Purchase consideration** – the price paid for a business.
 - **If a company purchases a going concern, the purchase price for the business can consist of**:
 - **Cash** - the amount of cash can exceed the value of the net assets, which will then be recorded as goodwill within the SOFP.
 - issuing shares/debentures in the purchasing company to the original owners: If the value of the shares / debentures exceeds the value of the net assets, then once again goodwill has arisen & should be recorded as an intangible NCA.
 - any combination of the above.
 - **Purchased goodwill**: goodwill which has been paid for by the purchasing business.
 - **Inherent goodwill**: goodwill which has not been paid for. It has been built up within the business by the owners. The amount is subjective.
 - **Goodwill could arise because**:
 - many customers will continue to trade w/ the new owner.
 - the business has a good reputation.
 - the business workforce is experienced, efficient, & reliable.
 - the business is situated in a good location.
 - the business has long-term, good relationships w/ its suppliers.
 - **The general principles are**:
 - The assets bought are often revalued to arrive at an agreed current valuation between the parties. This is often referred to as their fair value. A fair value reflects the assets' condition at the date.
 - The difference between the net assets purchased & the purchase consideration is recorded in the books of the purchasing company. If purchase consideration is greater than the value of the net assets, this is referred to as positive goodwill & vice versa.

- ❖ make entries in ledger accounts for the merger of two / more sole traders' businesses to form a partnership.

Aiisha and Borak are sole traders. They agree to merge their two businesses into a partnership as from 1 January 2015.

The following information relating to the two businesses is given:

Statements of financial position at 31 December 2014

| | Aiisha | | Borak | |
|--------------------------------------|--------|---------------|--------|---------------|
| | \$ | \$ | \$ | \$ |
| ASSETS | | | | |
| Non-current assets | | 25 000 | | 75 000 |
| Current assets | | | | |
| Inventory | 3 500 | | 16 000 | |
| Trade receivables | 6 000 | | 7 000 | |
| Cash and cash equivalents | 700 | 10 200 | 1 200 | 24 200 |
| Total assets | | <u>35 200</u> | | <u>99 200</u> |
| CAPITAL AND LIABILITIES | | | | |
| Capital | | 32 700 | | 94 200 |
| Current liabilities | | | | |
| Trade payables | | 2 500 | | 5 000 |
| Total capital and liabilities | | <u>35 200</u> | | <u>99 200</u> |

The partners agree the following values for the assets to be taken over by the partnership:

| | Aiisha | Borak |
|--------------------|--------|--------|
| | \$ | \$ |
| Non-current assets | 30 000 | 70 000 |
| Inventories | 3 000 | 15 000 |
| Trade receivables | 5 000 | 6 700 |

The partnership would assume responsibility for the current liabilities at 31 December 2014 of both sole traders.

They further agree that each partner will start in the partnership business with capital of \$50 000.

The partnership bankers have agreed to provide any necessary overdraft facilities.

Required

Prepare a statement of financial position for the partnership as it would appear at the start of trading on 1 January 2015.

Answer

Aiisha and Borak
Statement of financial position at 1 January 2015

| | \$ | \$ |
|---------------------------------------|--------|----------------|
| ASSETS | | |
| Non-current assets | | 100 000 |
| Current assets | | |
| Inventories | 18 000 | |
| Trade receivables | 11 700 | 29 700 |
| Total assets | | <u>129 700</u> |
| CAPITAL AND LIABILITIES | | |
| Capital accounts – Aiisha | 50 000 | |
| Borak | 50 000 | 100 000 |
| Current liabilities | | |
| Trade payables | 7 500 | |
| Cash and cash equivalents (overdraft) | 22 200 | 29 700 |
| Total capital and liabilities | | <u>129 700</u> |

Workings

| Capital account – Aiisha | | | | Capital account – Borak | | | |
|--------------------------|---------------|-----------|---------------|-------------------------|---------------|---------|---------------|
| | \$ | \$ | | \$ | \$ | \$ | |
| Cash | 700 | Bal b/d | 32 700 | Cash | 1 200 | Bal b/d | 94 200 |
| Bal c/d | 35 500 | Valuation | 3 500 | Valuation | 6 300 | | |
| | <u>36 200</u> | | <u>36 200</u> | Bal c/d | 86 700 | | |
| | | Bal b/d | 35 500 | | <u>94 200</u> | | <u>94 200</u> |
| | | Cash | 14 500 | Cash | 36 700 | Bal b/d | 86 700 |

- ❖ make entries in ledger accounts for the merger of a sole trader's business w/ an existing partnership to form an enlarged partnership.

Samad and Tariq are in partnership sharing profits and losses: Samad 70 per cent and Tariq 30 per cent.

On 1 March 2015 they merged their business with the business owned by Kaylee, who is a sole trader.

It was agreed that in the new business profits and losses would be shared: Samad 50 per cent, Tariq 25 per cent and Kaylee 25 per cent.

The statements of financial position for each business immediately prior to the merger were as follows.

| Statements of financial position at 28 February 2015 | | |
|--|-----------------|----------------|
| | Samad and Tariq | Kaylee |
| | \$ | \$ |
| Non-current assets at net book value | 180 000 | 90 000 |
| Current assets | | |
| Inventory | 27 000 | 16 000 |
| Trade receivables | 17 000 | 9 000 |
| Cash at bank | | 1 000 |
| Total assets | 224 000 | 116 000 |
| Capital accounts | | |
| Samad | 140 000 | |
| Tariq | 70 000 | |
| Kaylee | | 110 000 |
| Current liabilities | | |
| Trade payables | 11 000 | 6 000 |
| Bank overdraft | 3 000 | |
| Total capital and liabilities | 224 000 | 116 000 |

The terms of the merger were as follows.

- The goodwill of each business was agreed as: Samad and Tariq \$42 000; Kaylee \$28 000. No goodwill account is maintained in the books of the new business.
- It was agreed to take over all of Kaylee's assets, but that non-current assets were revalued at \$105 000 and inventory at \$13 000. Kaylee agreed to settle her business's trade payables from her private resources.
- The following revaluations were agreed for the assets of the business owned by Samad and Tariq: non-current assets \$220 000, inventory \$20 000.
- It was agreed that the total of the partners' capitals should be \$400 000 in the new business and that the balances of the partners' capital accounts should be in the same ratio as the profit and loss sharing ratio. It was agreed that this would be put into effect by each partner transferring funds to the business from his or her private resources or by withdrawing funds from the business's bank account.
- It was agreed that the books of the partnership would continue and that the new business would be called STK.

The following need to be prepared:

- ▶ the capital accounts of the partners in the new business at 1 March 2015
- ▶ the statement of financial position of the new business at 1 March 2015.

| | \$ |
|---|----------------|
| Goodwill | 28 000 |
| Non-current assets at valuation | 105 000 |
| Inventory | 13 000 |
| Trade receivables | 9 000 |
| Cash at bank | 1 000 |
| Kaylee's capital (before writing off goodwill) | 156 000 |

| | \$ |
|--|---------------|
| Goodwill | 42 000 |
| Increase in value of non-current assets | 40 000 |
| Decrease in value of inventory | (7 000) |
| Revaluation surplus (before writing off goodwill) | 75 000 |

| | Dr | | | Cr | | |
|-------------------------------|---------|---------|---------|--------------|---------|---------|
| | Samad | Tariq | Kaylee | Samad | Tariq | Kaylee |
| Goodwill written off (see W1) | 35 000 | 17 500 | 17 500 | | | |
| Bank | | | 38 500 | | | 156 000 |
| Balances c/d (see W2) | 200 000 | 100 000 | 100 000 | 235 000 | 117 500 | 156 000 |
| | 235 000 | 117 500 | 156 000 | 235 000 | 117 500 | 156 000 |
| | | | | Balances b/d | 200 000 | 100 000 |

Notes:

W1: The total goodwill of the new business is \$70 000 (i.e. \$42 000 original partnership of Samad and Tariq + \$28 000 sole trader business owned by Kaylee). The total goodwill is written off in the new profit and loss sharing ratio, i.e. Samad 50 per cent (\$35 000), Tariq 25 per cent (\$17 500) and Kaylee 25 per cent (\$17 500).

W2: The closing balances of the capital accounts must total \$400 000 and be in the new profit and loss sharing ratio, i.e. Samad 50 per cent (\$200 000), Tariq 25 per cent (\$100 000) and Kaylee 25 per cent (\$100 000).

| | \$ |
|--|---------------|
| Bank balance from original partnership | (3 000) |
| Bank balance from sole trader business | 1 000 |
| Additional capital introduced by Samad | 42 500 |
| Additional capital introduced by Tariq | 25 000 |
| Capital withdrawn by Kaylee | (38 500) |
| | 27 000 |

| STK Statement of financial position at 1 March 2015 | | |
|--|---------|----------------|
| | \$ | \$ |
| Non-current assets | | 325 000 |
| Current assets | | |
| Inventories | 33 000 | |
| Trade receivables | 26 000 | |
| Cash at bank (W3) | 27 000 | |
| | | 86 000 |
| | | 411 000 |
| Capital accounts | | |
| Samad | 200 000 | |
| Tariq | 100 000 | |
| Kaylee | 100 000 | |
| | | 400 000 |
| Current liabilities | | |
| Trade payables | | 11 000 |
| | | 411 000 |

❖ ledger accounts for the acquisition of a sole trader's business / partnership by a limited company.

- **In the partnership's books the process is:**

- The partnership is dissolved by using a realisation acc.
- The total purchase consideration is credited to the realisation acc. & debited to a personal acc. in the name of the company.

- **In the company's books the process is:**

- The new company's records are drawn up after the purchase, including details of goodwill, if any, & the payments made to each partner.

- **Issue of debenture to partners based on partner's loan:**

Partner's loan to partnership: \$100,000 at 8% interest per annum. Annual interest = \$8000

A 10% debenture producing annual interest of \$8000 will be $\$100,000 \times \frac{8}{10} = \$80,000$

If the annual interest rate on the debenture of 5%, the amount of debenture is:

$\$100,000 \times \frac{8}{5} = \$160,000$. (Interest of \$160,000 at 5% per annum = \$8,000)

- **Journal entries:**

| Journal | | |
|-------------------------------|------------|------------|
| Name of account | Debit | Credit |
| | \$000 | \$000 |
| Land and buildings | 220 | |
| Plant and machinery | 170 | |
| Inventory | 128 | |
| Trade receivables | 105 | |
| Cash and cash equivalents | 69 | |
| Trade payables | | 138 |
| Loan to Kay (100 × 1.125) | | 125 |
| Ordinary share capital | | 300 |
| Share premium | | 150 |
| Cash* | | |
| Goodwill (balancing figure)** | 21 | - |
| | <u>713</u> | <u>713</u> |

Akrim's business was purchased by Seabee Hay plc at the start of business on 1 January 2015. The purchase consideration was \$100000, made up of \$35000 cash and 30000 ordinary shares in Seabee Hay plc.

Seabee Hay plc valued the non-current assets taken over at \$75000 and the net current assets at \$10000.

Required

Prepare a summarised statement of financial position for Seabee Hay plc at 1 January 2015, immediately after the acquisition of the business of Akrim.

| Seabee Hay Ltd | | |
|--|--------------|--|
| Summarised statement of financial position at 1 January 2015 | | |
| ASSETS | | |
| Non-current assets | 1825 | (1 750 + 75) |
| Goodwill | 15 | (\$85 000 tangible assets purchased for \$100 000) |
| Current assets | 265 | (290 – 35 + 10) |
| Total assets | <u>2 105</u> | |
| EQUITY AND LIABILITIES | | |
| Capital and reserves | | |
| Ordinary shares of \$1 each | 1 530 | (\$100 000 + \$30 000) |
| Share premium | 35 | (30 000 Shares with a value of \$ 65 000) |
| Other reserves | 520 | |
| | <u>2 085</u> | |
| Current liabilities | 20 | |
| Total equity and liabilities | <u>2 105</u> | |

Note

Akrim has made a capital gain (profit) on the sale of his business of \$40000.

Akrim's 30000 ordinary shares have a value to Akrim of \$65000 (\$100000 purchase consideration less cash \$35000) or \$2.17 per share (\$65000/30 000).

A summarised statement of financial position of Akrim shows the following position at 31 December 2014:

| | |
|---------------------|---------------|
| | 5 |
| ASSETS | |
| Non-current assets | 48 000 |
| Current assets | 12 000 |
| Total assets | <u>60 000</u> |
| CAPITAL | <u>60 000</u> |

A summarised statement of financial position of Seabee Hay plc on the same date shows:

| | |
|-------------------------------------|--------------|
| | 5000 |
| ASSETS | |
| Non-current assets | 1 750 |
| Current assets | 290 |
| Total assets | <u>2 040</u> |
| EQUITY AND LIABILITIES | |
| Equity | |
| Ordinary shares of \$1 each | 1 500 |
| Reserves | 520 |
| Current liabilities | 20 |
| Total equity and liabilities | <u>2 040</u> |

Yukio and Mussa are in partnership, sharing profits and losses in the ratio of 2:1 respectively. A statement of financial position at 31 January 2015 showed:

**Yukio and Mussa
Statement of financial position
at 31 January 2015**

| | |
|--------------------------------------|----------------|
| | \$ |
| ASSETS | |
| Non-current assets | |
| Premises | 150 000 |
| Office equipment | 40 000 |
| Vehicles | 60 000 |
| | <u>250 000</u> |
| Current assets | |
| Inventory | 18 000 |
| Trade receivables | 6 000 |
| Bank balance | 4 000 |
| | <u>28 000</u> |
| Total assets | <u>278 000</u> |
| CAPITAL AND LIABILITIES | |
| Capital accounts – Yukio | |
| | 120 000 |
| Mussa | 100 000 |
| | <u>220 000</u> |
| Non-current liabilities | |
| Loan – Mussa | 50 000 |
| Current liabilities | |
| Trade payables | 8 000 |
| Total capital and liabilities | <u>278 000</u> |

The partnership was taken over by Sparta plc before the start of business on 1 February 2015. The purchase consideration was \$400 000, consisting of:

- \$30 000 cash
- \$60 000 seven per cent debentures to be shared between the partners in their profit sharing ratios
- 800 000 ordinary shares of \$0.25 each shared equally between the partners.

For the purposes of the takeover, the partnership assets have been valued as follows:

| | |
|-------------------|-----------|
| | \$ |
| Premises | 200 000 |
| Office equipment | 20 000 |
| Vehicles | 50 000 |
| Inventory | 16 000 |
| Trade receivables | 5 000 |

A statement of financial position for Sparta plc at 31 January 2015 showed:

| Sparta plc Statement of financial position at 31 January 2015 | |
|--|--------------|
| | \$000 |
| ASSETS | |
| Non-current assets | |
| Land and buildings | 6700 |
| Machinery | 560 |
| Vehicles | 300 |
| | 7560 |
| Current assets | |
| Inventory | 56 |
| Trade receivables | 34 |
| Cash and cash equivalents | 17 |
| | 107 |
| Total assets | 7667 |
| EQUITY AND LIABILITIES | |
| Equity | |
| Ordinary shares of \$0.25 each | 4000 |
| Share premium | 1000 |
| Reserves | 2269 |
| | 7269 |
| Non-current liabilities | |
| 7% debentures | 350 |
| Current liabilities | |
| Trade payables | 48 |
| Total equity and liabilities | 7667 |

Required

- a Prepare a statement of financial position for Sparta plc at 1 February 2015 immediately after the takeover of the partnership.
b Based on the purchase consideration price, calculate the value of one share held by a partner on 1 February 2015.

| Sparta plc Statement of financial position at 1 February 2015 | |
|--|--------------|
| | \$000 |
| ASSETS | |
| Non-current assets | |
| Goodwill | 117 |
| Land and buildings | 6900 |
| Machinery | 560 |
| Office equipment | 20 |
| Vehicles | 350 |
| | 7947 |
| Current assets | |
| Inventory | 72 |
| Trade receivables | 39 |
| | 111 |
| Total assets | 8058 |
| EQUITY AND LIABILITIES | |
| Equity | |
| Ordinary shares of \$0.25 each | 4200 |
| Share premium | 1110 |
| Other reserves | 2269 |
| | 7579 |
| Non-current liabilities | |
| 7% debentures | 410 |
| Current liabilities | |
| Trade payables | 56 |
| Cash and cash equivalents | 13 |
| | 69 |
| Total equity and liabilities | 8058 |

b \$0.3875 each

$$= \frac{\text{Value of shares}}{\text{Number of shares}} = \frac{\$310000}{800000}$$

- ❖ evaluate & discuss the advantages & disadvantages of the proposed merger.
 - **Return on investment** – the financial benefits that will result from investing in another business.

| Advantages | Disadvantages |
|--|--|
| Economies of scale due to larger size | High costs of merging businesses (negotiations) |
| Lower research & development costs = more highly skilled staff & funds | Higher market prices due to larger business/monopoly = reduced competition |
| Vertical integration = greater control of production & sale; reduced profit margin | Job losses = redundancy payments; loss of morale due to low job security |
| Diversification due to offering broader range of products | Reduced staff motivation due to change in company culture |

1.3 Consignment & Joint venture accounts

- ❖ distinguish between consignments & joint ventures & their environment.
 - **Consignor**: the party which transfers for sale to the consignee
 - **Consignee**: the party which receives goods for sale.

| Advantages | Disadvantages |
|--|---|
| Helps the business expand its existing market | Chances of fraud |
| It is often cheaper than setting up an office / factory in a new country | Consignee may work for several consignors; conflict between products; product w/ more profit will be favoured |
| Local agent will have more knowledge | |

- **Joint ventures**: a business arrangement between two / more parties who agree to combine their skills & resources for the purpose of completing a specific task.
- **There are three ways in which joint venture accounts can be maintained:**

- A separate set of accounting records record all the transactions of the venture. This includes:
 - a joint venture bank acc.
 - a joint venture acc. to which all income & expenditure will be debited & credited.
 - 2 separate accounts for each party involved in the venture.
- Each party to the joint venture keeps a record of only the transactions they pay in respect of the venture. This will include:
 - a joint venture acc. to record personal transactions.
 - a memorandum joint venture acc. which will act as an IS.
- Each party to the joint venture keeps a record of all the transactions. This will include:
 - a joint venture acc. which will also act as an IS. this is almost identical to a memorandum acc., except expenses are shown in more detail.
 - & the acc. of the other party involved acting as a trade payable / trade receivable acc.

| Advantages | Disadvantages |
|--|--|
| both parties have access to wider market | one party may feel they are doing all the work |
| temporary | conflict of priority between joint venture & personal business |
| no legal formalities except for agreement | trust & fraud |
| both parties specialise in what they do best | |

❖ prepare ledger accounts for consignment transactions.

- In the books of the consignor:

Ankir, an exporter based in South Africa, sends goods to Sim, her agent, in Kuala Lumpur.

Ankir purchased the goods for \$1000 on 1 April. She paid freight charges of \$120. Sim incurred Malaysian import duties amounting to \$235 and further expenses of \$65. Sim sold the goods for \$2150. He deducted his expenses and his commission of 10 per cent of sales. Sim remitted the amount due to Ankir at the end of May.

Required

Prepare appropriate accounts in Ankir's books of account.

Answer

| Consignment account – Sim | | | |
|---------------------------|------|-------------|------|
| | \$ | | \$ |
| Goods on consignment | 1000 | Sim – sales | 2150 |
| Bank | 120 | | |
| Sim – import duties | 235 | | |
| Sim – other expenses | 65 | | |
| Sim – commission | 215 | | |
| Profit on consignment | 515 | | |
| | 2150 | | 2150 |

| Goods on consignment account | | | |
|-------------------------------|------|--|------|
| | \$ | | \$ |
| | | Consignment account – Sim | 1000 |
| Bank account | | | |
| | \$ | | \$ |
| Sim | 1635 | Consignment account – Sim | 120 |
| Profit on consignment account | | | |
| | \$ | | \$ |
| | | Consignment account – Sim | 515 |
| Sim | | | |
| | \$ | | \$ |
| Consignment account – sales | 2150 | Consignment account – Sim (duties) | 235 |
| | | Consignment account – Sim (exports) | 65 |
| | | Consignment account – Sim (commission) | 215 |
| | | Bank account | 1635 |
| | 2150 | | 2150 |

- In the books of the consignee:

| Consignment with Krysal account | | | |
|---------------------------------|-------|---------------|-------|
| | \$ | | \$ |
| Bank – landing fees | 4400 | Customers a/c | 50000 |
| Bank – to Krystal | 8000 | | |
| Income statement – commission | 5000 | | |
| Balance c/d | 32600 | | |
| | 50000 | | 50000 |
| | | Balance b/d | 32600 |

- Recording closing inventory:

Chang, a trader in Hong Kong, sent a consignment of 450 units of his product to Umesh, an agent in Nepal. The goods had cost Chang \$68 each; he also paid freight and insurance costs amounting to \$360.

At Chang's financial year end Umesh had sold 380 units for \$90 each. Umesh had paid landing charges \$1 800, import duties of \$675 and other direct expenses of \$45. Umesh is paid 5 per cent commission on sales plus 2.5 per cent del credere commission. At the financial year end Umesh sent Chang \$25 000.

Required

Prepare:

- a The consignment account in Chang's books of account.
- b Umesh's account.

| Umesh | | | |
|-----------------------------|-------|----|---------------------------------------|
| | | \$ | \$ |
| Consignment account – sales | 34200 | | Consignment account – landing charges |
| | | | 1800 |
| | | | Consignment account – import duties |
| | | | 675 |
| | | | Consignment account – other expenses |
| | | | 45 |
| | | | Consignment account – commission |
| | | | 2565 |
| | | | Bank |
| | | | 25 000 |
| | | | Balance c/d |
| | | | 4115 |
| | 34200 | | 34200 |
| Balance b/d | 4115 | | |

Answer

| Consignment account – Umesh | | | |
|--------------------------------|-------|---------------|-------|
| | | \$ | \$ |
| Goods on consignment | 30600 | Umesh – sales | 34200 |
| Bank – freight and insurance | 360 | Balance c/d | 5208* |
| Umesh – landing charges | 1800 | | |
| Umesh – import duties | 675 | | |
| Umesh – other expenses | 45 | | |
| Umesh – basic commission | 1710 | | |
| Umesh – del credere commission | 855 | | |
| Consignment profit | 3363 | | |
| | 39408 | | 39408 |
| Balance b/d | 5208 | | |

* This balance is made up of 70 units of the product unsold (cost \$68 + freight and insurance \$0.8 + landing charges \$4 + import duties \$1.50 + other direct expenses \$0.10 so 70 units at \$74.40 per unit).

❖ prepare ledger accounts for joint ventures & the profit for joint ventures.

Selena and Micha enter into a joint venture. They both supply materials and sell the finished products. Profits are to be shared Selena two-thirds and Micha one-third.

| | | | | \$ |
|-----------------------------|--------|------|--|----|
| Materials supplied | Selena | 3400 | | |
| | Micha | 2900 | | |
| Wages paid | Selena | 800 | | |
| | Micha | 1150 | | |
| Micha paid warehouse costs | | 315 | | |
| Micha paid delivery costs | | 199 | | |
| Other selling expenses paid | Selena | 238 | | |
| | Micha | 307 | | |
| Cash received from sales | Selena | 6780 | | |
| | Micha | 5220 | | |

Required
Prepare the entries relating to the joint venture in the books of account of:
a Selena
b Micha.

| Selena and Micha memorandum joint venture account | | | |
|---|------|-------|-------|
| | | \$ | \$ |
| Purchases of materials | 6300 | Sales | 12000 |
| Wages | 1950 | | |
| Warehouse costs | 315 | | |
| Delivery costs | 199 | | |
| Selling expenses | 545 | | |
| Venture profit | | | |
| Selena | 1794 | | |
| Micha | 897 | 2691 | |
| | | 12000 | 12000 |

Now that the parties know the profit earned it can be entered in their own joint venture accounts. This will determine how much cash needs to be transferred between the parties to draw the venture to a close.

In Selena's books of account:

| Joint venture with Micha | | | |
|--|------|-------|------|
| | | \$ | \$ |
| Materials | 3400 | Sales | 6780 |
| Wages | 800 | | |
| Expenses | 238 | | |
| Share of profit (transferred to Selena's income statement) | 1794 | | |
| | 6232 | | |
| Cash paid to Micha | 548 | | |
| | 6780 | | 6780 |

In Micha's books of account:

| Joint venture with Selena | | | |
|---|------|---------------------------|------|
| | | \$ | \$ |
| Materials | 2900 | Sales | 5220 |
| Wages | 1150 | | |
| Warehouse costs | 315 | | |
| Delivery costs | 199 | | |
| Expenses | 307 | | |
| Share of profit (transferred to Micha's income statement) | 897 | Cash received from Selena | 548 |
| | 5768 | | 5768 |

1.4 Computerised accounting systems

❖ *understand the need for computerising the accounts of a business.*

- **Computerized accounting system:** a set of programmes which allow the accounts to be prepared using a computer. an alternative to manual bookkeeping.

❖ *advantages & disadvantages of introducing a computerised accounting system.*

- **Precautions that should be taken to ensure the security of the computerised accounting data:**
 - Ensure data is secure – kept securely (1) & password protected. (1)
 - Back up the data (1), restrict access to certain parts of the system. (1)
 - Anti-virus / firewall (1).

| Advantages | Disadvantages |
|--|--|
| Speed – calculations would be done instantly, & time would be saved. | The partners would have to take time to familiarise themselves w/ the system/training would be needed. |
| Accuracy – calculations would be accurate. | It would require expenditure on software/other set up costs. |
| Security could be organised (passwords etc.). | It would require expenditure on hardware. |
| Documents i.e., invoices could be produced automatically. | Opposition from staff due to redundancies & changes |
| Reports & accounts could be generated automatically. | Accounts would have to be backed up. |
| Legibility | Input errors |

❖ *discuss the process of computerising the business accounts.*

1. Select the computerised system which the business will use.

| Buying from it provider in town | |
|--|--|
| Advantages | Disadvantages |
| Local so can contact easily if any problems | If looking at an accounting package, then may not have the necessary expertise in accounting if there are problems |
| Can build trust & working relationship | May also try to sell other packages which you do not need. |
| May be able to sell a tried & tested package & offer regular maintenance / updates / upgrades. | May be restricted in the package they can sell as often operate as a dealer for a specific product – this means you may not get the type of package required |
| Buying over the internet | |
| May be cheaper than anyone else | Probably no backup services offered, so may be issues if system breaks down/crashes |
| The internet provides access to wider market so may be able to find more accounting packages | May have to buy service contract as part of deal – this can be expensive & if system fails then time may be lost in seeking help |
| 'tested' by thousands - continuous improvements & 'bug fixes' | May not offer regular upgrades |
| Getting someone who is computer literate to write a package | |
| Local so can ask if in difficulty | May lack expertise in accounting so you may not get what you want |
| Can write a specific package for your business | Supplier may not be able to produce the software quickly |
| | Significant risk of errors / bugs in a first release product |
| | W/ only one user, there is a risk that errors are not detected quickly |
| | Unfamiliar how the software operates; more learning time than w/ a standard' commercially available package |
| | Probably will not be able to offer regular upgrades |
| | May be expensive. |

2. Set up the chart of accounts for the new system.
3. Prepare the final financial statements at the date of the transfer.
4. Reconcile any balances at that date (bank, petty cash, etc.)
5. Transfer to the new system the opening balances – these are the balances from the closing manual SOFP.
6. Produce a trial balance from the computerised system & match this back to the manual balances.
7. Operate a system of parallel running w/ regular checks between the manual & computerised system.
8. Pick a final date on which the computerised system will take over entirely from the manual system.

❖ *ways in which the integrity of the accounting data can be ensured during transfer.*

- Control procedures which must be carried out when changing from a manual accounting system to a computerised accounting system:
 - Open the books of acc. on the system to check correct data entry. (1)
 - Carry out a bank reconciliation, reconcile control accounts, trade receivables & trade payables. (1)

- Run reports i.e., trial balance. (1)
- Ensure staff are adequately trained. (1)
- Run alongside manual system in parallel. (1)

1.5 Analysis & communication of accounting information

❖ understand the need to aid decision making by potential investors in a business.

| | |
|---|---|
| Existing shareholders These are the owners of limited companies; they may not take any part in the day-to-day management of the company. | 1. assess the overall performance of the business. 2. consider the security of their investment. 3. calculate return in terms of dividend paid & capital growth of their shares. They can then compare this performance w/ other investment opportunities. |
| Future shareholders | different group from existing shareholders, they will be comparing the results from several businesses to decide which to invest in. |
| Investors This group is different from a bank as it may be, say, an individual who has been asked by the owner to invest funds in the business. | to determine the return, they will receive & the security of any investment. |

- **The published accounts of limited company have several limitations:**
 - Not clear to people w/ inadequate knowledge of accounting & finance
 - The information they give is not adequate – companies are entitled to keep certain information confidential to prevent giving competitors an unfair advantage.
 - Comparability is limited – subjectivity in selecting accounting policies.
 - Companies can depart from accounting standards if justified.
 - Published accounts are of historic interest – circumstances may change.

| Uses | Limitations |
|--|---|
| Ratios enable comparisons w/ other companies / w/ industry averages. | Ratios must be accurate – some useful information may not be disclosed in the accounts |
| The use of ratios puts values into context. | Information must be timely to be of use - not be available until after the end of a company's financial year. |
| Ratios may enable trends over time to be monitored. | Ratios do not explain the cause but may indicate areas of concern - further investigation is necessary. |
| Absolute values may not be useful in isolation. | |
| Ratios may help in decision making. | Ratios usually do not recognise seasonal factors in business. |

❖ calculate the

- **Working capital cycle** = trade receivables turnover (in days) + inventory turnover (in days) – trade payables turnover (in days)
= average collection period + inventory turnover (in days) – average payment period
- **Net working assets** = trade receivables + inventories – trade payables
- **Net working assets to revenue (sales)** = $\frac{\text{net working assets}}{\text{revenue(sales)}} \times 100$
- **Interest cover** = $\frac{\text{profit from operations}}{\text{interest expense}}$
- **Income gearing** = $\frac{\text{interest expense}}{\text{profit before interest and tax (PBIT)}} \times 100$
- **Gearing ratio** = $\frac{\text{fixed cost capital}}{\text{total capital}} \times 100 = \frac{\text{NCL + preference share capital}}{\text{issued ordinary share capital + all reserves + NCL + preference share}} \times 100$
- **Earnings per share** = $\frac{\text{profit for the year - preference share dividend}}{\text{number of issued ordinary shares}}$
- **Price earnings ratio** = $\frac{\text{market price per share}}{\text{earnings per share}}$
- **Dividend yield** = $\frac{\text{total dividend paid and proposed}}{\text{market price of all shares}} \times 100 = \frac{\text{declared rate of dividend} \times \text{nominal value of equity shares}}{\text{market price of ordinary shares}} \times 100$
- **Dividend cover** = $\frac{\text{profit available to pay ordinary dividend}}{\text{ordinary paid dividend}}$
- **Dividend per share** = $\frac{\text{ordinary dividend paid}}{\text{number of issued ordinary shares}}$

❖ analyse & evaluate the results of the ratios & draw conclusions.

- **Working capital cycle** – this ratio shows the length of time taken between making a payment for goods taken into inventory & receipt of cash from the sale of inventory to customers. The shorter the time between the business laying out cash for the purchase of goods & collection of cash for the sale of goods, the better for the business, since less finance from other sources is needed.

- **The cycle can be shortened by the business:**
 - Reducing inventory levels held.
 - Speeding up trade receivables collection.
 - Delaying payment to trade payables.
- **Net working assets to revenue** – the proportion of sales revenue that is tied up in less liquid net CAs – the value of the net working assets that is not immediately available for use in the business.
- **Income gearing** – ratio of interest paid on borrowings expressed as a percentage of profit from operations.
- **Gearing ratio** – relationship between fixed cost capital & total capital.

| Gearing ratio | Description | Borrowing | Debt | Risk |
|------------------|--------------|----------------|-----------|-----------|
| greater than 50% | high gearing | high borrowing | high debt | high risk |
| less than 50% | low gearing | low borrowing | Low debt | low risk |
| 50% | neutral | medium | medium | medium |

- **Earnings per share** – how much of the company's profit can be attributed to each issued equity share.
 - **Earnings** – profit for the year after taxation & preference dividends; belong to ordinary shareholders.
 - **It is used to compare:**
 - The results of a particular company over several years
 - The performance of a company's equity shares against another company's equity shares.
 - The earnings against a return available from alternative investments
 - **Price earnings ratio** – relates the market price of the share to the earnings per share. It represents the number of years earnings that investors are prepared to pay to purchase one of the company's shares. The greater the P/E ratio, the greater the confidence investors have in the future of the company.
 - **Dividend yield** – expresses the actual dividend received by the shareholder as a percentage of the market price of the share. It shows the actual percentage return an investor can expect based on current market price of shares.
 - **Shareholders invest in businesses for two reasons:**
 - to gain an annual return on their investment in the form of dividends
 - to make a capital gain when selling the shares w/ an increase in their market value.
 - **Dividend cover** – compare the amount of profit earned by ordinary shareholders w/ the amount of dividend paid. It indicates how likely it is that the company can continue to pay its current rate of ordinary share dividend in the future.
 - A high figure is good since it suggests that the company should be able to maintain dividends to ordinary shareholders at the current level even if profits fall.
 - Low dividend cover may indicate a reckless dividend policy & that a small reduction in company profits may have an adverse effect on dividends in future.
 - **Dividend per share** – indicates how much each ordinary share received as a dividend.
- ❖ *make appropriate recommendations to potential investors based on the analysis.*
- ❖ *evaluate the interrelationships between ratios.*
- **Utilisation of resources:** a group of ratios which will help to assess the efficiency w/ which the resources of a business have been used over a period.

| IS & SOFP | | | |
|--|--|----------------------------|----------------------|
| profitability ratios | ratios showing utilisation of resources | financial ratios | investment ratios |
| return on capital employed (ROCE) [primary ratio] | revenue as a % of capital employed [secondary ratio] | current ratio | gearing |
| profit before interest & tax as % of revenue [secondary ratio] | NCA turnover | liquid (acid test) ratio | debt to equity ratio |
| profit margin | Net working assets to revenue | trade receivables turnover | interest cover |
| gross margin | | inventory turnover | income gearing |
| operating expenses to revenue ratio | | treat payables turnover | price earnings ratio |
| mark-up | | working capital cycle | dividend cover |
| | | | dividend yield |
| | | | dividend per share |

2 Cost & Management Accounting

2.1 Activity based costing (ABC)

❖ the application of activity-based costing & its uses & limitations.

- **Activity-based costing:** defined by CIMA as 'cost attribution to cost units based on benefit received from indirect activities', i.e., overheads that cannot be allocated to a particular product / process.
- **Cost pool:** the total of all the costs associated w/ a particular activity.
- **Cost driver:** the activity which directly results in a specific cost being incurred.
- **Cost of each activity** =
$$\frac{\text{cost of activity}}{\text{number of times that activity is performed}}$$

| Advantages | Limitations |
|--|---|
| Provide more accurate costing information | Some overhead costs cannot be assigned to a cost pool, i.e., the CEO's salary & factory depreciation |
| See where & understand how overheads arise | |
| Set benchmarks for planning & control purposes | Time consuming to try to work out specific costs a product incurs |
| Identify individual products/services that are unprofitable/overpriced | Implementing is costly process because of its complexity |
| Help in the preparation of estimates & quotes for other work | Requires extensive programme of training / specialist consultants |
| Improve performance by replicating good practice identified in one department across other departments | Requires greater degree of analysis of costs than absorption costing - not suitable for smaller businesses |

❖ use ABC to apportion overheads & calculate the total cost of a unit.

| Activity | Pin | Qua | Total | Cost | Absorption rate for cost driver |
|----------------------|------|------|-------|---------------|---------------------------------|
| | | | | \$ | \$ |
| Machine set up costs | 300 | 100 | 400 | 20000 | 50.00 |
| Machine maintenance | 8000 | 2000 | 10000 | 40000 | 4.00 |
| Forklift truck costs | 350 | 150 | 500 | 50000 | 100.00 |
| | | | | <u>110000</u> | |

Allocation of total costs:

| Activity | Pin | Qua | Total |
|----------------------|--------------|--------------|---------------|
| | \$ | \$ | \$ |
| Machine set up costs | 15000 | 5000 | 20000 |
| Machine maintenance | 32000 | 8000 | 40000 |
| Forklift truck costs | 35000 | 15000 | 50000 |
| | <u>82000</u> | <u>28000</u> | <u>110000</u> |
| Per unit: | | | |
| Pin (\$82000 ÷ 2800) | 29.29 | | |
| Qua (\$28000 ÷ 9000) | | 3.11 | |

❖ use ABC to calculate the value of inventory.

| | For inventory purposes | For pricing purposes |
|--|------------------------|----------------------|
| | \$ | \$ |
| Prime cost | 45 | 45 |
| Variable overheads | 16 | 16 |
| Fixed overheads | 12 | 12 |
| Administration costs | | 11 |
| Marketing costs | | 9 |
| Selling expenses | | 7 |
| Total cost | <u>73</u> | <u>100</u> |
| 40% mark-up to arrive at selling price | | 40 |
| Selling price | | <u>140</u> |

❖ use ABC to calculate the total cost & profit of a unit.

| | Pin | Qua |
|-----------------------------|--------|--------|
| | \$ | \$ |
| Selling price per unit | 500.00 | 300.00 |
| Less: | | |
| Direct materials and labour | 200.00 | 80.00 |
| Factory overhead using ABC | 29.29 | 3.11 |
| Cost per unit | 229.29 | 83.11 |
| Profit per unit using ABC | 270.71 | 216.89 |

❖ use ABC to demonstrate the effect of absorption costing on profit.

Total overheads \$110 000 ÷ total direct labour hours (14 000 + 13 500) = \$4.00 per direct labour hour.

| | Pin | Qua |
|----------------------------|--------|--------|
| | \$ | \$ |
| Selling price per unit | 500.00 | 300.00 |
| Less: | | |
| Direct material and labour | 200.00 | 80.00 |
| Factory overhead* | 20.00 | 6.00 |
| Profit per unit | 280.00 | 214.00 |

| | Pin | Qua |
|---------------------------------|--------|--------|
| | \$ | \$ |
| Profit using absorption costing | 280.00 | 214.00 |
| Profit using ABC | 270.71 | 216.89 |
| Difference | (9.29) | 2.89 |

This is also the difference in overheads per unit under the two methods.

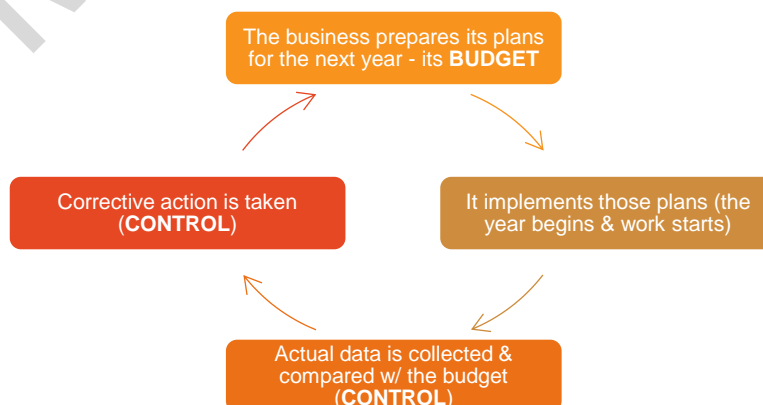
* Factory overhead per unit = 5 × \$4.00 for Pin and 1.5 × \$4.00 for Qua.

❖ apply ABC to make business decisions & recommendations using supporting data.

2.2 Budgeting & budgetary control

❖ understand the need for & benefits of a budgetary control system.

- **Budget:** a plan of future activity, usually expressed in financial terms
- **The benefits of using budgetary control:**
 - **Control** – ensures that cash & labour hours are controlled.
 - **Planning** – use of resources is planned to achieve the objectives of the business.
 - **Communication & coordination** – communicate plans to managers responsible for execution & ensures coordination between managers of subunits so that they are aware of the other's requirements.
 - **Motivation** – motivates managers to achieve organisational objectives especially if managers have been included in creating the budget & there are rewards/bonuses for meeting targets.
 - **Performance evaluation & monitoring** – Performance of managers is evaluated by reference to budgetary standards. Any variance between the budget & actual results will then be assessed & corrective action will be taken.
 - **Aid to decision-making** – manager should base their decisions around their budgets.



❖ discuss the advantages & disadvantages of a budgetary control system.

| Advantages | Disadvantages |
|---|---|
| Assists w/ planning for the future | Budgets are an estimate & could be inaccurate |
| Helps w/ responsibility accounting/enables assessment of managers | Budget are time consuming & expensive to create & monitor |
| Helps to monitor performance | Could lead to conflict between departments |
| Enables delegation to departments | Could demotivate employees |
| Assists w/ decision making | May have to employ specialist staff |
| May motivate staff | Budget may be set an unrealistic level |
| Compares budget & actual, identifying variances, enabling corrective action to be taken | Does not take acc. of unforeseen circumstances |
| | Can restrict staff innovation |

❖ prepare the sales budget.

- **Sales budget** – a summary of the expected sales units & sales value for the future

Zaid produces one type of machine, the ZT/103. The expected sales for the machine for the three months ending 31 March are:

| | January | February | March |
|------------------------------------|---------|----------|---------|
| Budgeted sales | 10 | 12 | 13 |
| Expected selling price per machine | \$2 100 | \$2 100 | \$2 150 |

Required

Prepare a sales budget for the three months ending 31 March.

Answer

Sales budget for the three months ending 31 March

| | January | February | March |
|------------------------|----------|----------|----------|
| Budgeted sales | 10 | 12 | 13 |
| Budgeted sales revenue | \$21 000 | \$25 200 | \$27 950 |

❖ prepare the production budget.

- **Production budget** – the calculation of expected production in units, based on the information from the sales budget & accounting for movements in inventory of finished goods.

Production budget for the three months ending 31 March

| | January | February | March |
|---------------------------------|---------|----------|-------|
| Budgeted sales | 10 | 12 | 13 |
| Plus Budgeted closing inventory | 7 | 7 | 6 |
| Total production needed | 17 | 19 | 19 |
| Less Budgeted opening inventory | 5 | 7 | 7 |
| Budgeted production | 12 | 12 | 12 |

Prepare a production budget based on the budgeted sales used in the previous worked example. Zaid requires an even production flow throughout the three months.

Answer

The total production for the three months is found by using the following calculation:

| | |
|--|----|
| Budgeted sales (10 + 12 + 13) | 35 |
| Plus Budgeted closing inventory | 6 |
| Total production needed to meet budgeted sales and closing inventory | 41 |
| Less Budgeted opening inventory | 5 |
| Budgeted production over the three months | 36 |

❖ prepare the purchases budget.

- **Purchase's budget** – a calculation of the expected value of purchases of materials based on the production levels as shown by the production budget.

Danst Ltd has the following budget for sales of 'limts':

| | February | March | April |
|------------------------|----------|-------|-------|
| Budgeted sales (units) | 120 | 140 | 160 |

The opening inventory on 1 February is expected to be 26 units of limts and the closing inventory at 30 April is expected to be 41 units of limts.

Required

Calculate the number of limts to be purchased over the three months ending 30 April.

Answer

| | Units |
|---|-------|
| Budgeted sales (120 + 140 + 160) | 420 |
| Plus Budgeted closing inventory | 41 |
| Total purchases needed to meet budgeted sales and closing inventory | 461 |
| Less Budgeted opening inventory | 26 |
| Budgeted purchases of goods for resale | 435 |

Danst will need to purchase 435 units in total during February, March and April. If an even amount of purchases were required each month throughout the year, then 145 units (435 divided by 3) would be purchased each month. Therefore, using the figures that we now know, the budget would look like this:

| | February | March | April |
|---|----------|-------|-------|
| Budgeted sales | 120 | 140 | 160 |
| Plus Budgeted closing inventory | 51 | 56 | 41 |
| Total purchases needed | 171 | 196 | 201 |
| Less Budgeted opening inventory | 26 | 51 | 56 |
| Budgeted purchases of limts required for resale | 145 | 145 | 145 |

❖ prepare the labour budget.

- **Labour budget** – determine the business’s need for planned labour.

Cerise has produced the following production budget for the three months ending 31 August: **Answer**

| | | | | Labour budget for the three months ending 31 August | | | |
|---|------|------|--------|---|-------|--------|-------|
| | June | July | August | June | July | August | |
| Planned production in units | 4000 | 5000 | 3500 | Hours presently available | 16000 | 16000 | 16000 |
| Each unit of production requires four hours of labour. Each worker works 40 hours per week. Cerise has 100 workers. | | | | Labour requirement (hours) | 16000 | 20000 | 14000 |
| Required | | | | Surplus hours | - | - | 2000 |
| Prepare a labour budget for the three months ending 31 August (assume four weeks in each month). | | | | Shortfall in hours | - | 4000 | - |
| | | | | Workers presently available | 100 | 100 | 100 |
| | | | | Workers required | 100 | 125 | 87.5 |
| | | | | Surplus labour | - | - | 12.5 |
| | | | | Labour shortfall | - | 25 | - |

❖ prepare the trade receivables budget.

- **Trade receivables budget** – a summary of the expected movement in money owed by the customers to the business.

The managers of Chin Ltd provide the following budgeted information for the three months ending 31 March:

Answer

| | \$ |
|--|-------|
| 1 January amounts owed by credit customers | 30000 |
| Budgeted credit sales for | |
| January | 40000 |
| February | 50000 |
| March | 60000 |
| Cash sales for | |
| January | 12000 |
| February | 10000 |
| March | 14000 |

All credit customers are expected to settle their debts in the month following the sale of goods. They are allowed, and will take, five per cent cash discount.

Required

Prepare a trade receivables budget for the three months ending 31 March.

Trade receivables budget for the three months ending 31 March

| | January | February | March |
|-------------------------------------|---------|----------|---------|
| | \$ | \$ | \$ |
| Balance brought forward | 30000 | 40000 | 50000 |
| Credit sales | 40000 | 50000 | 60000 |
| Cash received from credit customers | (28500) | (38000) | (47500) |
| Discount allowed | (1500) | (2000) | (2500) |
| Balance carried forward | 40000 | 50000 | 60000 |

❖ prepare the trade payables budget.

- **Trade payables budget** – a summary of the expected movement in money owed by the business to the suppliers.

The managers of Pavla Ltd provide the following information for the three months ending 30 June:

All trade payables will be paid in the month following purchase. Pavla Ltd will receive a cash discount of five per cent on all credit purchases.

Required

Prepare a trade payables budget for the three months ending 30 June.

| | \$ |
|---|-------|
| 1 April predicted amount owed to trade payables | 14000 |
| Budgeted purchases on credit terms for | |
| April | 15000 |
| May | 16000 |
| June | 17000 |
| Budgeted cash purchases | |
| April | 2000 |
| May | 5000 |
| June | 3000 |

Answer

Trade payables budget for the three months ending 30 June

| | April | May | June |
|--------------------------|---------|---------|---------|
| | \$ | \$ | \$ |
| Balances brought forward | 14000 | 15000 | 16000 |
| Credit purchases | 15000 | 16000 | 17000 |
| | 29000 | 31000 | 33000 |
| Cash paid to suppliers | (13300) | (14250) | (15200) |
| Discount received | (700) | (750) | (800) |
| Balance carried forward | 15000 | 16000 | 17000 |

❖ prepare the cash budget.

- **Cash budget** – a financial plan on cash inflows & outflows for period which is used to control the use of cash resources so that the business objectives can be achieved.
- **The preparation of a cash budget will:**
 - help to ensure that there is always sufficient cash available to pursue normal business activities.
 - highlight times when the business may have cash surpluses, allowing managers time to arrange short-term investment of the surpluses to gain maximum return.
 - highlight times when the business might have cash deficits, allowing managers time to arrange short-term alternative sources of finance.

Rent for the store is \$2000 for a three-month period. The first payment for rent is due on 1 March.

Other expenses are expected to be \$1700 per month payable in the month following that in which they occur.

Arvane opens a small store using \$8000 savings. She estimates that her purchases and sales for her first three months of trading will be:

| | Purchases | Sales |
|-------|-----------|-------|
| | \$ | \$ |
| March | 8000 | 12000 |
| April | 7000 | 14000 |
| May | 11000 | 28000 |

Arvane will purchase fixtures and fittings for her store costing \$11000. She will pay for these in April.

Her suppliers require payment for purchases in the month of purchase.

Her sales are 50 per cent cash sales.

Her credit customers are expected to pay in the month following sale.

Wages will amount to \$1000 per month payable when due.

Cash budget for the three months ending 31 May

| | March | April | May |
|-------------------------|--------------|---------------|--------------|
| | \$ | \$ | \$ |
| Receipts | | | |
| Sales – cash | 6000 | 7000 | 14000 |
| credit | | 6000 | 7000 |
| | <u>6000</u> | <u>13000</u> | <u>21000</u> |
| Expenditure | | | |
| Purchases | 8000 | 7000 | 11000 |
| Wages | 1000 | 1000 | 1000 |
| Rent | 2000 | | |
| Other expenses | | 1700 | 1700 |
| Fixtures and fittings | | 11000 | |
| | <u>11000</u> | <u>20700</u> | <u>13700</u> |
| Net receipts/(payments) | (5000) | (7700) | 7300 |
| Balance brought forward | 8000 | 3000 | (4700) |
| Balance carried forward | <u>3000</u> | <u>(4700)</u> | <u>2600</u> |

❖ *prepare the master budget.*

- **Forecast financial statements** – the forecast IS & SOFP based on the functional budgets contained within the master budget.
- All budgets are drawn together to prepare a master budget.

The following budgeted information is given for Plum Ltd:

| | August | September | October | November |
|-------------------------|--------|-----------|---------|----------|
| | \$ | \$ | \$ | \$ |
| Credit sales | 30000 | 40000 | 35000 | 45000 |
| Credit purchases | 15000 | 20000 | 15000 | 25000 |
| Wages paid | 7500 | 7500 | 7500 | 7500 |
| Other expenses | 8200 | 8400 | 8100 | 9000 |
| Purchase of machine | | 10000 | | |
| Depreciation of machine | | 100 | 100 | 100 |

Trade receivables will pay one month after goods are sold.

Trade payables will be paid one month after receipt of the goods.

All expenses are paid in the month in which they occur.

It is expected that cash in hand at 1 September will be \$1200.

Inventory at 1 September is expected to be \$2000.

Inventory at 30 November is expected to be \$2500.

Cash budget for the three months ending 30 November

Remember, depreciation does not involve cash leaving the business.

| | September | October | November |
|-------------------------------------|---------------|---------------|---------------|
| | \$ | \$ | \$ |
| Receipts | | | |
| Cash received from credit customers | <u>30000</u> | <u>40000</u> | <u>35000</u> |
| Payments: | | | |
| Cash paid to credit suppliers | 15000 | 20000 | 15000 |
| Wages | 7500 | 7500 | 7500 |
| Other expenses | 8400 | 8100 | 9000 |
| Purchase of machine | 10000 | | |
| | <u>40900</u> | <u>35600</u> | <u>31500</u> |
| Balance brought forward | 1200 | (9700) | (5300) |
| Receipts | <u>30000</u> | <u>40000</u> | <u>35000</u> |
| | <u>31200</u> | <u>30300</u> | <u>29700</u> |
| Payments | 40900 | 35600 | 31500 |
| Balance carried forward | <u>(9700)</u> | <u>(5300)</u> | <u>(1800)</u> |

b Budgeted income statement for the three months ending 30 November

| | \$ | \$ |
|------------------------------------|--------------|----------------|
| Sales | | 120000 |
| Less Cost of sales | | |
| Inventory 1 September | 2000 | |
| Purchases | <u>60000</u> | |
| | 62000 | |
| Inventory 30 November | <u>2500</u> | <u>59500</u> |
| Gross profit | | <u>60500</u> |
| Less Expenses | | |
| Wages | (22500) | |
| Other expenses | (25500) | |
| Depreciation of machinery | (300) | <u>(48300)</u> |
| Profit for the three months | | <u>12200</u> |

- ❖ recognise the effect of limiting factors on the preparation of budgets.
 - **Limiting factor** – anything that limits the activity of a business; also known as a key factor / principal budget factor.
 - **Examples are:**
 - Limited demand for product
 - Shortage of materials, which limits production.
 - Shortage of Labour, which also limits production.
 - Shortage of space in which to produce the budgeted amount.
 - Shortage of cash
- ❖ prepare a flexed budget statement.
 - **Flexed budget:** a budget which is changed to reflect changes in activity levels.
 - always check for semi-variable expenses / variables.

The following data are available for Grizzel, a public limited company, for the year ending 30 September:

Required

Prepare a flexed budgeted operating statement for Grizzel for the year ending 30 September.

| | Budget | Actual | Answer | | |
|-----------------------------|--------|--------|---------------|--------|------------------|
| | £ | £ | Flexed budget | Actual | Variations |
| Level of production (units) | 8000 | 8500 | | | |
| Variable costs – | | | | | |
| direct materials | 15200 | 16000 | 16150 | 16000 | 150 (favourable) |
| direct labour | 19200 | 21000 | 20400 | 21000 | (600) (adverse) |
| variable overheads | 4800 | 5000 | 5100 | 5000 | 100 (favourable) |
| Total variable costs | 39200 | 42000 | 41650 | 42000 | (350) (adverse) |
| Fixed costs | 15000 | 16000 | 15000 | 16000 | (1000) (adverse) |
| Total cost | 54200 | 58000 | 56650 | 58000 | (1350) (adverse) |

- ❖ identify & explain causes of differences between actual & flexed budgeted data.
 - **Fixed budget:** a budget which is not changes when sales, / some other activity, increases / decreases.
 - **Variance:** a difference between the standard cost & actual cost.
 - **Adverse variance** – a variance that reduces profits.
 - **Favourable variance** – a variance that increases profits.
- ❖ make business decisions & recommendations using supporting data.
- ❖ discuss the behavioural aspects of budgeting.

2.3 Standard costing

- ❖ understand the application of a system of standard costing to an organisation.
 - **Standard costs:** the estimated, / budgeted, cost of a unit of output / activity. It can be compared w/ the actual cost of the unit of output / activity to take corrective action.
 - **There are several ways of setting standards:**
 - **Attainable standards** – can be achieved under generally efficient operating conditions.
 - **Basic standards** – remain unchanged over several years & are useful for determining trends in efficiency; become outdated over time; variances that have little use; rarely used for control purposes.
 - **Ideal standards** – assume that production is carried out under the most favourable conditions leading to perfect performance.
- ❖ calculate the direct material, direct labour & fixed overhead variances.

| Actual | Applied | Flexed | Budgeted |
|----------------------------------|----------------------------------|------------------------------------|------------------------------------|
| actual volume X | actual volume X | actual volume X | budgeted volume X |
| actual usage/hours per unit X | actual usage/hours per unit X | budgeted usage/hours per unit X | budgeted usage/hours per unit X |
| actual price per usage | budgeted price per usage | budgeted price for usage | budget price per usage |

- **Total direct materials variance** = direct materials price variance + direct materials usage variance
= Actual – Flexed

- **Direct materials price variance** = $(AP - BP) \times AU \times AV = \text{Actual} - \text{Applied}$
- **Direct materials usage variance** = $(AU - BU) \times AV \times BP = \text{Flexed} - \text{Applied}$
- **Total direct labour variance** = *direct labour efficiency variance + direct labour rate variance*
= *Actual - Flexed*
- **Direct labour rate (price) variance** = $(AP - BP) \times AU \times AV = \text{Actual} - \text{Applied}$
- **Direct labour efficiency (usage) variance** = $(AU - BU) \times AV \times BP = \text{Flexed} - \text{Applied}$
- **Material/Labour:** negative (-) = favourable
positive (+) = adverse
actual expense higher than budgeted = lower profits than budgeted
- **Fixed overhead expenditure variance** = *Actual - Budgeted*
- **Fixed overhead volume variance:**
capacity = *output × hours*; basis, i.e., machine hours & labour hours
 - **Fixed overhead capacity variance** = $(AV - BV) \times (AU - BU) \times BP = \text{Applied} - \text{Budgeted}$
 - **Fixed overhead efficiency variance** = $(AU - BU) \times AV \times BP = \text{Applied} - \text{Flexed}$
 - **Fixed overhead volume variance** = $(BV - AV) \times BU \times BP$
= *capacity variance + efficiency variance*
= *Budgeted - Flexed*
- **Overhead variance:** negative (-) = favourable
positive (+) = adverse
Expenditure: actual expenses higher than budget = lower profit than budgeted
Volume: lower production than budgeted = lower profit than budgeted because higher overheads to absorb

❖ calculate the sales price & volume variance.

| Actual | Flexed | Budgeted |
|---------------|----------------|-----------------|
| actual volume | actual volume | budgeted volume |
| X | X | X |
| actual price | budgeted price | budget price |

- **Total sales variance** = *sales volume variance + sales price variance = Actual - Budgeted*
- **Sales price variance** = $(AP - BP) \times AV = \text{Actual} - \text{Flexed}$
- **Sales volume variance** = $(AV - BV) \times BP = \text{Flexed} - \text{Budgeted}$
- **Sales variances:** negative (-) = adverse
positive (+) = favourable
Actual sales higher than budgeted = higher profits than budgeted

❖ reconcile standard cost to actual cost.

Hussain industries manufactures one product. Management uses a standard absorption costing system. Management prepared the following budget for February based on sales of 10 000 units

| Budget for February | \$ | \$ |
|--|-------|-------|
| Sales (10000 units at \$9.50 per unit) | | 95000 |
| Direct materials (14 000 kgs at \$3.00 per kilo) | 42000 | |
| Direct labour (3750 hours at \$7.20 per hour) | 27000 | |
| Fixed overheads (\$0.70 per unit) | 7000 | |
| Cost of sales (10000 units) | | 76000 |
| Budgeted profit | | 19000 |

Hussain's actual sales for February were only 9500 units

| Actual results for February | \$ | \$ |
|---|-------|-------|
| Sales (9500 units at \$9.60) | | 91200 |
| Direct materials (15250 kgs at \$2.90 per kilo) | 44225 | |
| Direct labour (3500 hours at \$8.00 per hour) | 28000 | |
| Fixed overheads | 6500 | |
| Cost of sales | | 78725 |
| Actual profit | | 12475 |

Required

Prepare a statement reconciling standard cost with actual cost.

Answer

| | \$ | \$ | \$ |
|---|-------------------|----------------|--------------|
| Standard costs (10 000 units) | | | 76000 |
| Only 9500 units produced so standard cost is actually | | | 72200 |
| | Favourable | Adverse | |
| Direct material variances – usage variance | | 5850 | |
| price variance | 1525 | | |
| Direct labour variances – efficiency | 450 | | |
| rate | | 2800 | |
| Fixed overhead variances – expenditure | 500 | | |
| volume | | 350 | |
| | <u>2475</u> | <u>9000</u> | <u>6525</u> |
| Actual costs | | | <u>78725</u> |

Note

- The direct expense variances have been calculated using 'the grid'.
- The fixed overhead expenditure variance is the difference between the budgeted figure and the actual figure. The volume variance arise because 500 fewer sales were made thus giving a shortfall in the absorption of overheads of $500 \times \$0.70 = \350 .
- The total of the variances calculated is \$6525 adverse which means that further costs from standard have been incurred and this total needs to be added to the total standard costs.

❖ reconcile standard profit to actual profit.

| Hussain industries | | | | Workings for budgeted profit (after flexing based on actual sales of 9500 units) | |
|--|-------------------------|----------------------|--------------|--|-------|
| Statement for February reconciling standard profit and actual profit | | | | \$ | \$ |
| | \$ | \$ | \$ | | |
| | Favourable variances | Adverse variances | | | |
| Budgeted profit for February | | | 18050 | Budgeted sales revenue (9500 × \$9.5) | 90250 |
| Variations - Sales price variance | 950 | | | Direct materials (14000 × 0.95 = 13 300 × \$3.00) | 39900 |
| Direct materials - usage | | 5850 | | Direct labour (3750 × 0.95 = 3562.5 × \$7.20) | 25650 |
| price | 1525 | | | Fixed overheads (9500 × \$0.70) | 6650 |
| Direct labour - efficiency | 450 | | | Budgeted profit | 18050 |
| rate | | 2800 | | | |
| Fixed overheads - expenditure | 500 | | | | |
| volume | | 350 | | | |
| | <u>3425</u> | <u>9000</u> | <u>5575</u> | | |
| Actual profit | | | <u>12475</u> | | |

❖ explain the causes of the variances & their relationship to each other.

| Variance | Direction | Possible Cause |
|--|------------|---|
| Sales volume variance | Favourable | Changes in trends/fashion Higher quality increasing demand Lack of supply by competitors |
| | Adverse | Changes in trends/fashion Loss of market share Low quality resulting in lack of demand |
| Sales price variance | Favourable | Lack of competition Better-quality product so higher demand Market leader |
| | Adverse | Respond to increased competition. Respond to changes in fashion. Respond to lack of demand |
| Direct material usage variance | Favourable | More skilled, efficient workforce Efficient production processes Higher-quality material |
| | Adverse | Lower-quality material Theft, deterioration, obsolescence Lower-skilled workforce |
| Direct material price variance | Favourable | Lower prices charged by suppliers. Lower-quality materials Unexpected discounts |
| | Adverse | Higher prices charged by suppliers. Unexpected delivery costs Better-quality materials No bulk discounts. Scarcity of materials |
| Direct labour rate variance | Favourable | Lower-grade workforce No overtime / bonuses paid |
| | Adverse | Unexpected overtime Productivity bonuses Higher-skilled workforce Pay increases |
| Direct labour efficiency variance | Favourable | More skilled workforce Better-quality materials Better training/supervision Advances in machine technology |
| | Adverse | Lower-quality material Lower-skilled workforce Lack of training / supervision Machine breakdowns Bad working conditions |
| Fixed overhead expenditure variance | Favourable | Will arise from the actual fixed overhead spend being lower than the budgeted overhead spend, perhaps because of savings made after the budget was set |
| | Adverse | Will arise when more has been paid for fixed overheads than was budgeted, perhaps because of an unexpected cost / a supplier increasing costs more than budgeted. A landlord, for instance, may increase the rent by a higher figure than was expected when the budget was set. |

| | | |
|---|------------|---|
| Fixed overhead volume variance | Favourable | Will arise when the hours worked by direct labour is greater than the direct labour hours budgeted in the master budget. Perhaps a new order has been received which requires extra labour to be employed & therefore extra hours worked. |
| | Adverse | Will arise when the opposite occurs. |
| Fixed overhead efficiency variance | Favourable | Will arise when the output produced by direct workers took less time in actual hours than the standard hour set. This may be because higher skilled Labour was used. The use of less skilled labour will lead to the opposite. |

❖ *how standard costing can be used to improve the performance of a business.*

- Standard costing is an important management tool. It provides a benchmark against which actual performance can be measured.

❖ *discuss the advantages & disadvantages of a standard costing system.*

| Advantages | Disadvantages |
|--|---|
| Preparation of budgets is easier & more realistic. | It takes time to collect all data necessary. |
| Variations are easier to identify. | Need to be continually monitored & updated. |
| Activities responsible for variations are highlighted. | Does not explain the cause of the variations. |
| Enable the preparation of estimates for costs of new products. | External factors may cause variations. |
| It can be used for all types of businesses. | |

2.4 Investment appraisal

❖ *understand the process of investment appraisal.*

- **Investment appraisal:** the process of assessing whether it is worthwhile to invest funds into a particular project.
- **Time value of money:** the principle that the same sum of money is worth more now than at some time in the future.
- The investment project may be the replacement of an existing asset, acquiring an additional asset, introducing a new product, opening a new branch of a business, etc. Funds invested in the project may include additional working capital, as well as expenditure on NCAs. These projects may always involve making choices, including whether to proceed w/ the project, which assets to buy, which new products to produce, & so on.
- **Care should be taken when making capital investment decisions because:**
 - large sums of money are often involved.
 - the money may well be tied up for a considerable length of time.
 - decisions cannot generally be easily reversed.
 - money committed is usually non-returnable.
- ARR is the only investment appraisal method that uses profit, the rest use cash.

❖ *ascertain future net cash inflows & outflows arising from the project, including the treatment of working capital.*

- **Cash inflow:** money received by a business (e.g., by the sale of goods).
- **Cash outflow:** money paid out by a business (e.g., on production costs).

- **When profits are given:**

The following information is available for two proposed projects:

| | Project 2178 | Project 2179 | | Project 2178 | Project 2179 |
|------------------------------------|--------------|--------------|------------|-----------------------------------|-----------------------------------|
| | \$000 | \$000 | | \$000 | \$000 |
| Initial costs | (14000) | (12000) | Cash flows | | |
| Expected profits generated: | | | Year 0 | (14000) | (12000) |
| Year 1 | 3500 | 3500 | Year 1 | 5000 | 4700 |
| Year 2 | 5000 | 4000 | Year 2 | 6500 | 5200 |
| Year 3 | 8000 | 5500 | Year 3 | 9500 | 6700 |
| Year 4 | 10000 | 6500 | Payback | 2.26 years (2 years 2500/9500) | 2.31 years (2 years 2100/6700) |

Additional information

The profit for each project has been calculated after providing for annual depreciation as follows:

Project 2178 should be undertaken – it has the shorter payback period.

| Project 2178 | Project 2179 |
|--------------|--------------|
| \$000 | \$000 |
| 1500 | 1200 |

- **When annual cash inflows & outflows are given separately:**

Year 1 Cash receipts \$100000; cash expenditure \$20000; net cash flow \$80000
 Year 2 Cash receipts \$120000; cash expenditure \$25000; net cash flow \$95000
 Year 3 Cash receipts \$130000; cash expenditure \$25000; net cash flow \$105000

- **Additional working capital:**

Kosuke is considering an investment in a new project. The initial investment is \$450000. The project will require an increase in working capital of \$50000.

Required

Calculate the average investment in the project.

Answer

$$\text{Average investment} = \frac{\$450000}{2} + \$50000 = \$275000$$

❖ **net present value (NPV) capital investment appraisal technique**

- **Net present value:** the present value of future receipts from a project, less the present value of future payments in respect of the same project.
- **Present value:** the present, / current, value of a future sum of money discounted at a given rate.

| Advantages | Disadvantages |
|---|---|
| the time value of money is considered as calculations are made to take acc. of present value of future cash flows | all figures are speculative because all of them are projects |
| it is relatively easy to understand | inflows & outflows are difficult to predict |
| greater importance is given to earlier cash flows | the current cost of capital may change over the life of the project |
| | the life of the project is difficult to predict |

The managers of Dvorak Ltd wish to purchase a new machine. They will use the machine for four years. There are three machines that are capable of producing the quality of goods that are desired. The current cost of capital for Dvorak Ltd is nine per cent. The following is an extract from the present value tables for \$1.

| | 9% |
|--------|-------|
| Year 1 | 0.917 |
| Year 2 | 0.842 |
| Year 3 | 0.772 |
| Year 4 | 0.708 |

All cash flows arise at the end of the relevant year.

The following information is available for the three machines:

| Machine | 78/BA | 92/DC | 36/FE |
|---------------------------------|-------|-------|--------|
| | \$ | \$ | \$ |
| Purchase price | 88000 | 99000 | 115000 |
| Forecast net cash flows: | | | |
| Year 1 | 44000 | 47000 | 50000 |
| Year 2 | 44000 | 47000 | 49000 |
| Year 3 | 40000 | 47000 | 48000 |
| Year 4 | 40000 | 45000 | 44000 |

Required

- Calculate the NPV of each machine.
- Advise the managers of Dvorak Ltd which of the three machines they should

Answer

| Machine | 78/BA | 92/DC | 36/FE |
|---------------------------|--------------|--------------|--------------|
| Present values | \$ | \$ | \$ |
| Year 0 | (88000) | (99000) | (115000) |
| Year 1 | 40348 | 43099 | 45850 |
| Year 2 | 37048 | 39574 | 41258 |
| Year 3 | 30880 | 36284 | 37056 |
| Year 4 | 28320 | 31860 | 31152 |
| Net present values | 48596 | 51817 | 40316 |

- The managers should purchase machine 92/DC because it yields the highest positive net present value.

Note

When a selection has to be made, the machine that yields the highest net present value should be chosen.

❖ *accounting rate of return (ARR) capital investment appraisal technique*

- **Accounting rate of return:** the average profit from investment expressed as a percentage of the average capital of investment.
- **ARR** = $\frac{\text{average profit}}{\text{average investment}} \times 100$
- **Average profit** – average of the profit arising directly from the investment expected to be earned over the life of the project.
- **Average investment** = $\frac{(\text{the cost of the asset(s) acquired})}{2} \times 100$

| Advantages | Disadvantages |
|--|--|
| it is relatively simple to calculate | the time value of money is not considered |
| the results can be compared to present profitability | it does not consider cash flows that take place after the ARR period |
| it considers the aggregate earnings of the project | |

Aoife is considering the purchase of a machine. There are two models that will suit her needs. All profits are assumed to accrue on the last day of the year.

| | Machine Ara | Machine Bibi |
|--------------------|-------------------|-------------------|
| | Cost \$160 000 | Cost \$210 000 |
| | Estimated profits | Estimated profits |
| | \$ | \$ |
| Year 1 | 50 000 | 70 000 |
| Year 2 | 60 000 | 90 000 |
| Year 3 | 70 000 | 110 500 |
| Year 4 | 80 000 | 88 000 |
| Year 5 | 60 000 | 84 000 |
| Year 5 Scrap value | 10 000 | 40 000 |

Required

- Calculate the accounting rate of return for both machines.
- Advise Aoife which machine she should purchase.

Answer

| | Machine Ara | Machine Bibi |
|---------------------|---|---|
| Average profit: | $\frac{\$320000}{5 \text{ years}} = \$64 000$ | $\frac{\$442500}{5 \text{ years}} = \$88 500$ |
| Average investment: | $\frac{\$160000 + \$100000}{2} = \$85 000$ | $\frac{\$210 000 + \$40000}{2} = \$125 000$ |

a Machine Ara: Accounting rate of return = $\frac{\$64 000}{\$85 000} \times 100 = 75.3\%$

Machine Bibi: Accounting rate of return = $\frac{\$88 500}{\$125 000} \times 100 = 70.8\%$

b Aoife should choose Machine Ara because this gives her a higher rate of return than Machine Bibi.

❖ *payback capital investment appraisal techniques*

- **Payback:** the period it takes for the net receipts from a project to pay back, / equal, the total of the funds invested in the project.

| Advantages | Disadvantages |
|--|--|
| It is relatively simple to calculate. | It ignores the time value of money. |
| As all future predictions carry an element of risk, it shows the project that involves the least risk because it recognises that cash received earlier in the project life cycle is preferable to cash received later. | It does not consider cash flows that take place after the payback period. |
| The use of cash is more objective than using profits that are dependent on the accounting policies decided by managers. | Projects may have different patterns of cash inflows, which do not give a realistic appraisal. |
| It is easy for non-accountants to understand. | |
| It shows the project that benefits the liquidity of a business. | |

Olive Branch is considering the purchase of a new machine. Two different machines will suit her purpose.

The cash flows are given:

| | Machine Argo | Machine Binko |
|--------|----------------------|----------------------|
| | Cost \$210 000 | Cost \$180 000 |
| | Estimated cash flows | Estimated cash flows |
| | \$ | \$ |
| Year 1 | 70 000 | 70 000 |
| Year 2 | 80 000 | 70 000 |
| Year 3 | 90 000 | 80 000 |
| Year 4 | 90 000 | 80 000 |

Required

Calculate the payback period for each of the two machines.

● **Machine Argo**

The initial outlay will be paid back partway through Year 3. (\$70 000 Year 1 + \$80 000 Year 2 + \$60 000 partway through Year 3) More precisely, 60 000/90 000ths through the third year. Machine Argo payback is two and 60/90th years = 2.67 years.

● **Machine Binko**

The initial outlay will also be paid back partway through Year 3. (\$70 000 + \$70 000 + \$40 000 partway through Year 3) More precisely, 40 000/80 000ths through Year 3. Machine Binko payback is two and 40/80th years = 2.5 years.

If Olive is only concerned with cash flows generated, then she should buy machine Binko.

❖ *internal rate of return (IRR) capital investment appraisal technique*

- **Internal rate of return:** the interest, / discount, rate at which the net present value of all the cash flows from a project (positive & negative) equals 0.

- $IRR = P + [(N - P) \times \frac{p}{p+n}]$

P is rate giving positive NPV.
N is rate giving negative NPV.
p is the positive NPV.
n is the negative NPV.

Note: 'n' is a negative value, so it should be added to the value of 'p' in the denominator since mathematically the subtraction of a negative number will result in an increase in value.

| Advantages | Disadvantages |
|---|--|
| it considers the time value of money by using discount factors | it is more complex to calculate than payback & ARR methods |
| it includes all the net cash flows from the whole life of the capital project | the calculation requires an element of trial & error to find a positive NPV & a negative NPV |
| greater importance is given to earlier cash flows | inflows & outflows are difficult to predict |
| | the current cost of capital may change over the life of the project |
| | the life of the project is difficult to predict |
| | it is not 100% accurate |

Hugo is considering the purchase of a machine which would require an initial outlay of \$160000. His current cost of capital is 12.5 per cent. The net present value of future cash flows for the machine are as follows:

NPV at 10% = \$5408; NPV at 40% = \$(52242)

Required

Advise Hugo whether or not, on financial grounds, he should invest in the new machine.

Answer

Hugo should invest in the new machine since it will yield 12.81 per cent, which is greater than his current cost of capital.

Workings

$$\begin{aligned} \text{Internal rate of return} &= 10 + \left[(40 - 10) \times \frac{5408}{5408 + 52242} \right] \\ &= 10 + (30 \times 0.0938) \\ &= 10 + 2.814 \\ &= 12.814\% \end{aligned}$$

$$IRR = 10 + \left[6 \times \frac{2535}{2535 + 3030} \right] = 12.733\%$$

If a project has a negative net present value, then the project should be rejected. This project has a positive NPV and an internal rate of return that is greater than the cost of capital, so it should be acceptable.

However, the investment would not be worthwhile if:

- the initial outlay had been 5.6 per cent greater than \$45000, that is \$47535

$$\frac{\$2535 \times 100}{\$45000} = 5.6\%$$

- the NPV of the receipts had been \$2535 or 5.33 per cent less
- the current cost of capital faced by the business rises above 12.733 per cent, an increase of 27.33 per cent.

❖ *make investment decisions & recommendations using supporting data.*

- Investment decisions are often linked to social accounting issues. You might be asked to consider how a decision arrived at by using any of the methods of appraisal might affect:
 - **The workforce** — does the decision require more workers? Will some workers lose their jobs?
 - **The environment** — could the decision harm the environment / cause pollution?
 - **The locality** — is more space needed for expansion? Is the local infrastructure capable of supporting the new project?

❖ *sensitivity analysis techniques in respect of the data prepared.*

- **Sensitivity analysis** – this tries to determine how susceptible the outcome of a project is to changes in future costs & revenues.

A project will require an initial outlay of \$45000. It is estimated that the project will generate net receipts of \$15000 over the next four years. The business's current cost of capital is ten per cent.

The present value of the project's net receipts is \$47535.

The internal rate of return is 12.73 per cent.

Workings

$$\begin{aligned} \text{NPV at 10\%} &= \$15000 \times 3.169 \text{ (i.e. } 0.909 + 0.826 + 0.751 + 0.683) \\ &= \$47535 - \$45000 = \$2535 \end{aligned}$$

IRR requires a negative NPV, so let's try 16 per cent net present value:

$$\begin{aligned} \text{NPV at 16\%} &= \$15000 \times 2.798 \text{ (0.862 + 0.743 + 0.641 + 0.552)} \\ &= \$41970 - \$45000 = -\$3030 \end{aligned}$$

Key

- | | |
|--------------|-------------------------|
| - SOFT: SOFP | - Acc.: Acc. |
| - IS: IS | - TP: Trade Payables |
| - CA: CA | - TR: Trade Receivables |
| - CL: CL | - TB: Trial Balance |
| - NCA: NCA | - P/L: P/L |
| - NCL: NCL | - P&L: P&L |

Credits

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