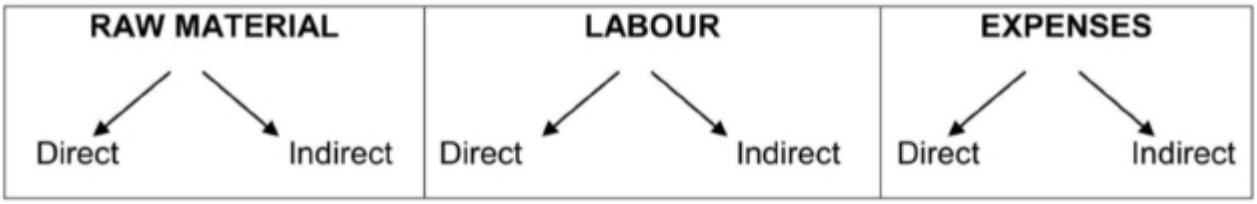
Exam Format

Paper 3 : Structured Questions	**3 hours**
Paper 3 tests the additional content for the A Level, but also requires a knowledge and understanding of the AS Level content. **Section A:** Four structured questions on financial accounting (4 × 25 marks) **Section B:** Two structured questions on cost and management accounting (2 × 25 marks) **Total 150 marks**	

1 - Manufacturing Accounts

Costs Classification



Prime cost= Direct Material + Direct Labor + Direct Expense

Overheads = Indirect Material + Indirect Labor + Indirect Expense

Overheads

• Production / Factory / Manufacturing Overheads

• Non Production / Non Factory / Non Manufacturing Overheads (E.g. Selling, Marketing, administration, Distribution, Office, Finance, R and D etc)

Building up of Costs

Direct Material	XX
Direct Labor	XX
Direct Expenses	XX
Prime Cost	XX
Add: Production Overheads	XX
Production Costs	XX
Add: Non Production Overheads	XX
Total Cost	XX

Direct costs
Direct cost are cost that can be traced / identified easily in the product or service being manufactured e.g. direct material, direct labor& direct expenses the sum of all the direct costs is known as the prime cost

Examples
• Cost of raw materials including carriage inwards on those raw materials.
• Labor directly involved in producing a unit or providing a service
• Hire of special machinery for a job or royalty expense

Indirect cost
indirect costs are costs that cannot be easily traced / identified in the product or service being manufactured or we treat them indirect because costs are negligible e.g. indirect material, indirect labor& indirect expenses the sum of all the indirect costs is known as the overheads

Examples
• wages of cleaners
• wages of crane drivers
• rent of a factory
• depreciation of plant and machinery
• costs of operating forklift trucks
• factory power
• factory lighting

Administration expenses
'Administration expenses' consist of such items as managers' salaries, legal and accountancy charges, the depreciation of accounting machinery and secretarial salaries.

Selling and distribution expenses
'Selling and distribution expenses' are items such as sales staff's salaries and commission, carriage outwards, depreciation of delivery vans, advertising and display expenses.

Financial charges
'financial charges' are expense items such as bank charges, discounts allowed and lease costs

Manufacturing Account
An account or statement where a company calculates cost of production/manufacturing cost. This helps in future decision making by comparing per unit cost with same products available in the market.

GOODS / INVENTORY:

An item of inventory could be in three different stages.

1. **Raw material** (product could be in raw shape like wood, sand, cement, nails etc)
2. **Work in process** (when good are partly completed, needs more work to be done to complete).
3. **Finished goods** (when product is fully completed, ready for sale)

ARD Textiles

Manufacturing Account For the year ended Dec 31, 2018

	$	$
Direct Raw material consumed:		
Opening inventory of RM	XX	
Add: Purchases of RM	XX	
Less: Purchases return RM	(XX)	
Add: Carriage Inwards RM	XX	
Closing inventory of RM	(XX)	
Direct Raw material consumed		**XX**
Add: Direct labor/ Factory wages		**XX**
Add: Direct Expense / Royalty		**XX**
Prime Cost		**XXX**
Add: Factory Overheads / Indirect Cost		
Salaries & wages (Factory Supervisor/Mgt salary)	XXX	
Insurance (factory)	XXX	
Indirect overheads (Factory)	XXX	
Heat and lighting (Factory)	XXX	
Rent (Factory)	XXX	
Depreciation (Factory equipment)	XXX	
Sundry expenses (factory)	XXX	**XXX**
		XXX
Add: WIP (Opening)	XXX	
Less: WIP (Closing)	(XXX)	XX(XX)
Production / Manufacturing cost		**XXX**
Add: Factory Markup		XX
Market Value of Goods Manufactured		**XXX**

Why Factory should charge a profit

- Market or transfer price reflects the external purchase price which helps in make v buy decision
- Profit is allocated between manufacturing and trading operations
- Help to give some credit to factory personnel because generally goods bought from outside cost even more.

Why Factory should "NOT" charge a profit

- Overall profitability of the business does not change
- Factory profit would be unrealistic unless based on market prices

ARD Textiles

Income Statement For the year ended Dec 31, 2018

	$	$
Sales Revenue (Finished Goods)		XXX
Less: Cost of Sales		
Opening Inventory of (FG)	XXX	
Add: Production Cost / Market Value of Goods Manufactured	**XXX**	
Purchase of finished goods (FG)	XXX	
Less: Purchases return (FG)	(XXX)	
Closing inventory (FG)	(XXX)	
Cost of Sales		**(XXX)**
Gross profit		XXX
Add: Other Income		
Interest received	XXX	
Decrease in Provision for doubtful debts	XXX	
Discount received	XXX	**XXX**
Less: Non-Manufacturing Overheads		
Heat and lighting (Office)	XXX	
Office salaries	XXX	
Rent (Office)	XXX	
Depreciation (Office Related Assets)	XXX	
Carriage Outward / Distribution Costs	XXX	
Bad debts	XXX	
Increase in Provision for doubt debts	XXX	
Interest expense / financial cost	XXX	**(XXX)**
Profit from Trading		XX/(XX)
Add: Factory Realized Profit		
Factory Profit Markup	XXX	
Less: Increase in PUP / Add: Decrease in PUP	(XX)	**XXX**
Overall Net Profit		XXXX

Provision for Unrealized Profit Account

	$		$
		Balance b/d	XX
Income Statement (Realized Profit)	XXX	Factory Profit	XXX
Balance c/d	XX		
	XXXX		XXXX

ARD Textiles

Statement of Financial Position as at 31 December 2018

Assets	$	$	$
Non-Current Assets	**Cost**	**Acc Dep**	**NBV**
Land	XXX	-	XX
Building	XXX	(XX)	XX
Equipment	XXX	(XX)	XX
			XXX
Current Assets			
Inventory			
Raw Material		XX	
Work in Progress		XX	
Finished Goods	XX		
Less: Unrealized Profit	(X)	**XX**	
Trade Receivables / Debtors	XXX		
Less: Provision for doubtful debts	(XXX)	XXX	
Prepaid Expense		XXX	
Accrued Income		XXX	
Bank		XXX	
Cash		XXX	XXX
Total Assets			**XXX**
Capital and Liabilities			
Opening Capital		XXX	
Add Profit for the year / Less (Loss)		XX/(XX)	
Less: Drawings		(XXX)	XXX
Non Current Liablities			
6% Bank Loan 2020			XXX
Current Liabilities			
Trade payables / Creditors		XXX	
Bank O/D (Over Draft)		XXX	
Accrued Expenses		XXX	
Prepaid Income		XXX	XXX
Total Capital and Liabilities			**XXX**

Exam Focused theory Questions

Q. Why do we calculate manufacturing cost?

A. Manufacturing cost give us the cost incurred on producing/Manufacturing goods. We calculate it because we would like to have per unit cost, which helps us in comparing cost with the same product available in the market. It helps us in future decision making, whether to continue production process or not it also helps us in controlling cost and other overheads.

Q. Explain the term Prime cost?

A Prime cost is the primary cost to produce any item/product/good without which it cannot be produced. It is the initial cost of production. Prime cost is the direct cost of production it includes direct raw material, direct labor and direct expense or we can say that , it we add all direct cost we can have the value of prime cost.

Q. Explain the two ways in which the going concern principle affects the value of work in progress?

A. Going concern principle states that the business will continue its operation in the foreseeable future.

1. Company uses the going concern principle because we expect the business to continue for the foreseeable future.

2. This means that stocks should be valued to reflect its normal use in the business and not the need to sell it immediately or auction basis.
3. Going concern value may be higher or lower as work in progress may require finishing, incurring additional cost.

Explain two ways in which the Prudence (Conservation) principle affects the value of work in progress.

A. Prudence concept states that we should record loss if we foresee it in the future, but profits should never be recorded unless it would actually realize.

1. Used to avoid overstating inventory value
2. Stock should be recorded at cost or net realizable value, whichever is lower.
3. NRV allows for additional work on WIP to make it of practical value.
4. A prudent approach avoids overstating profits.

A prudent valuation will reflect any work in manufacturing and work done on the RM converting them to WIP.

2 - Not for Profit / Club Accounts

Non-profit-oriented organizations are whose primary objective is not profit maximization. They make profit but which is incidental to its other social objectives and the profit / surplus cannot be distributed among its members as dividends instead it should be reinvested for the same cause. Examples are clubs, associations, charity and other non-profit oriented organizations.

As their main purpose is to provide recreational facilities like (Swimming, chess, cricket and other facilities) charities and other welfare activities for the members rather than to make profit from the members.

Difference In Terminologies

Profit Making Organization	**Non-Profit Organization**
Income statement / Trading Profit & Loss Account	1) Trading Account (Refreshment / Canteen etc)
	2) Income and expenditure account (For Entire Club including Canteen)
Net profit	Surplus (Only in Income & Expenditure Ac)
Net loss	Deficit (Only in Income & Expenditure Ac)
Capital	Accumulated fund
Cash Book	Receipt & Payment Account

Receipt and Payments Account
Receipt and payments account is the summary of the cash/bank for the period. Receipts and payments account only shows the cash/bank balance at the end of the period. It includes all (Capital and revenue) receipts and all (Capital & revenue) expenditure.

Income and Expenditure Account
an income and expenditure account follows the same rules as an income statement. The only differences are the terms used. It only includes revenue receipts and expenditures (as per law).

Difference between Receipt & Payments A/C & Income and Exp A/C

Receipt & Payment Account	**Income & Expenditure Account**
It includes all capital & revenue Receipts and payments	It shows only revenue receipts and payments
It is a cash/bank summary	It is summary of income and expenses in the period.
It reveals only cash/bank balance at the end	It reveals surplus/deficit at an end of the period.

Subscription Account (Income)

	$		$
A Balance b/d	XXX	**P** Balance b/d	XXX
Subscription refund	XXX		
		Bank (Subscription received	XXX
Income & Expenditure A/c	**XXX**	During the year)	
		Bad Debts	XXX
P Balance c/d	XXX	**A** Balance c/d	XXX
	XXX		XXX

Member's subscription
it is the main source of income for a Club. It is the fee charged by members for the use of club facilities.

Subscription in arrears
Subscription not received for the previous years, it is an asset/receivable for an organization.

Subscription In Advance
Subscription received in advance for the future periods. It is a liability for an organization.

Donations
Income for an organization received for some charitable purpose which has to be credited to the income and expenditure account in the year they received. If donations are specified as capital income then it has to be recorded in balance sheet instead of I& E account.

Locker Fees
the club may provide lockers for rent to the members to deposit their personal belongings. The fees collected are another source of income for the club, and it also credited in income and expenditure account.

Entrance fees
those are the fees paid by the members when they first join the organization and it is also credited to I & E a/c in the year in which they are received.

Profit from Bar / Snacks / Refreshments / Canteen / Cafeteria
Most non-trading concerns have bar or lounge to sell refreshment and light snacks to the members and the profit from such sales is another source of income for the organization. It is therefore necessary to prepare a bar trading account to determine the bar profit, that would be transferred to the I& E account.

Legacy
Legacy means, "Will" of a person or an organization and it is a capital receipt for non-trading organization. It would be recorded in balance sheet as permanent capital.

Life membership
in some clubs and societies, members can make a payment for life membership. This means that by paying a fairly substantial amount now members can enjoy the facilities of the club for the rest of their lives. Such a receipt should not be treated as income in the income and expenditure account solely in the year in which the member paid the money. It should be credited to a life membership account, and transfers should be made from that account to the credit of the income and expenditure account of an appropriate amount annually.

Donations
any donations received are usually shown as income in the year that they are received.

Entrance fees
when they first join a club, in addition to the membership fee for that year, new members often have to pay an entrance fee. Entrance fees are normally included as income in the year that they are received. A club could, however, decide to treat them differently, perhaps by spreading the income over a number of years. It all depends on the circumstances.

Accumulated Fund
it is same as a capital account in non-profit organization we prepare statement of accumulated fund instead of capital a/c as we prepare in sole trader and in partnership.

In sole trader or partnership	**In a non-profit organization**
CAPITAL = ASSETS – LIABILITIES	ACCUMULATED FUND = ASSETS – LIABLITIES

ACCUMULATED FUND

	$	$
TOTAL ASSETS		
Cash / Bank	XXX	
Inventory of refreshment	XXX	
Equipment	XXX	
Subscription in arrears	XXX	
Prepaid Expense	XXX	
Premises	XXX	**XXX**
Less: TOTAL LIABILITIES		
Subscription in advance	XXX	
Accrued/Owings to supplier	XXX	
Overdraft / Loan	XXX	**(XXX)**
Accumulated fund		**XXX**

Exam Focused theory Questions

Q. Why do members prefer to have income & expenditure account instead of receipt and payment account? OR What is the difference between income & expenditure account and receipt and payment account?

A. Income and expenditure account works on the income statement principle. It records only current year incomes and current year expenses, which shows the performance of current year as Surplus or Deficit. It is more accurate statement to judge and evaluate the efficiency of any organization. On the other hand receipt and payment account records the cash received or paid during the period including opening and closing cash/bank balance, in other words it is just a cash book of the company. Receipt and payment account does not, account for any adjustments of prepaid and accrued, it does not distinguish between capital and revenue receipts and expenses; it does not include any non monetary item like depreciation. But income and expenditure account includes all the above as mentioned.

B. How matching / accrual concept supports in recording subscription Income?

A.

While calculating subscription income for the year, we consider the subscription in arrears (opening and closing values) and subscription in advance (Opening and closing values), we add or deduct them accordingly, and calculate the current year subscription for the income and expenditure account. Matching or accrual concept also states that current year income should be recorded in current year whether we have received it or not.

ARD Club
Refreshments Trading Account
For the year Ended 31 Dec 2018

	Sale of refreshment		XXX
Less	**Cost of Sales:**		
	Opening inventory of refreshment	XXX	
Add	Purchase of refreshment	XXX	
Less	Closing inventory of refreshment	(XXX)	**XXX**
	Gross profit		XXX
Less	Expenses (Only related to Refreshments)		(XXX)
	Profit from refreshment Trading		XXX

ARD Club
Income & Expenditure Account
For the year Ended 31 Dec 2018

Income		
Profit on sale of refreshment	XXX	
Gain on disposalof Asset	XXX	
Sale of tickets	XXX	
Subscriptions Income (w)	XXX	
Rent of hall/premises	XXX	
Donations (if specified as revenue receipt)	XXX	**XXX**
Less: Expenditure		
Wages – Grounds man and assistant	XXX	
Loss on disposal of asset	XXX	
Depreciation of ground equipment	XXX	
Interest on loan	XXX	
Secretary's expenses	XXX	
Ground upkeep	XXX	
Utilities	XXX	**(XXX)**
Surplus / Deficit		**XX / (XX)**

ARD Club

Statement of Financial Position as at 31 December 2018

Assets	$	$	$
Non-Current Assets	**Cost**	**Acc Dep**	**NBV**
Land	XXX	-	XX
Building	XXX	(XX)	XX
Equipment	XXX	(XX)	XX
			XXX
Current Assets			
Inventory		XXX	
Subscriptions in Arreas / Owing		XXX	
Prepaid Expense		XXX	
Bank		XXX	
Cash		XXX	XXX
Total Assets			**XXX**
Total Liablities			
Opening Accumulated Fund		XXX	
Add Surplus / Less (Defecit)		XX/(XX)	
Add: Donations (Capital) / Legacy / Gift		(XXX)	XXX
Non-Current Liabilities			
6% Loan 2010			XX
Current Liabilities			
Trade payables / Creditors		XXX	
Bank O/D (Over Draft)		XXX	
Accrued Expenses		XXX	
Subscriptions Advance / Prepaid		XXX	XXX
Total Liabilities			**XXX**

3 - Partnership Accounts

Where no partnership agreement exists (Partnership Act 1980)
(*a*) Profits and losses are to be shared equally (Irrespective of Capital Contributions)
(*b*) There is to be no interest allowed on capital.
(*c*) No interest is to be charged on drawings.
(*d*) Salaries / Commissions are not allowed.
(*e*) Partners who put a sum of money into a partnership in excess of the capital they have agreed to subscribe are entitled to interest at the rate of 5% per annum on such an advance.
(f) Equal capital contribution by each partner
(g) In case of any disagreement majority will make a decision
(h) New partner cannot be admitted without consent of all others

Loan from partners
A partnership may borrow money from one of the partners if extra finance is required. Loans from partners are not part of the capital of the business and are treated in the same way as any other loan. In absence of partnership agreement / dispute a fix rate of interest of 5% is allowed to partner, on loan.

Minimum Guaranteed Profit
Some times a partner is guaranteed that he/she will receive a minimum stated share of profit no matter a business earns sufficient profit or not. In that case he is given his minimum share and after that only other partners will divide the remaining profit or loss

Partnership changes
A partnership change occurs when there is a change in structure of the partnership . The partnership is not dissolved it is only changed. i.e Admission of a new partner, Retirement of an existing partner , or simply a change in existing profit sharing ratio.

ARD Partnership
Appropriation Account
For the year ended December 31, 2015

	Net Profit		XXX
Add	**Interest on drawings**		
	Mr. A	XXX	
	Mr. R	XXX	**XXX**
Less:	**Interest on capital**		
	Mr. A	XXX	
	Mr. R	XXX	**(XXX)**
Less:	**Salaries / Bonus / Commission:**		
	Mr. A	XXX	
	Mr. R	XXX	**(XXX)**
	Residual Profits		**XXX**
	Remaining profit to be appropriated		
	Mr.A (Remaining profit X share)	XX	
	Mr.R (Remaining profit X share)	XX	XXX

Current Account

	A	R			A	R
Balance (Dr) b/d	**XXX**	**XXX**	OR	**Balance b/d**	**XXX**	**XXX**
Drawings	XXX	XXX		Interest on Capital	XXX	XXX
Interest on Drawings	XXX	XXX		Salaries	XXX	XXX
Share of Loss	XXX	XXX		Bonus / commission	XXX	XXX
				Profit share	XXX	XXX
				Interest on Loan	XXX	XXX
Balance c/d	**XXX**	**XXX**	OR	**Balance (Dr) c/d**	**XXX**	**XXX**
	XXX	XXX			XXX	XXX
Balance (Dr) b/d	**XXX**	**XXX**	OR	**Balance b/d**	**XXX**	**XXX**

BALANCE SHEET EXTRACT

FINANCED BY:		
Capital A/cs – A	XXX	
– B	XXX	**XXX**
Current A/c – A	XX	
– B	(XX)	**XX**
Total Partners Equity / Net Assets		**XXX**

Capital Account

	A	R		A	R
			Opening balance b/d	**XXX**	**XXX**
Goodwill (New Ratio)	XXX	XXX	Goodwill (Old Ratio)	XXX	XXX
Revaluation (Loss)	XXX	XXX	Revaluation (Gain)	XXX	XXX
Transfer to loan	XXX	-	Bank / Assets (New Capital Introduced)	-	XXX
			Current A/c (Transfer)	XXX	-
Closing balance c/d	**XXX**	**XXX**			
	XXX	XXX		XXX	XXX
			Opening balance b/d	**XXX**	**XXX**

If current accounts are not maintained by the company, then we record all the items in capital account, in the same way as we do in current account, using the opening balances of capital account.

Goodwill for Sole Traders and Partnerships

Purchased Goodwill = Total Price *less* value of net identifiable assets.

Reasons for payment of goodwill

- A large number of regular customers who will continue to deal with the new owner.
- The business has a good reputation.
- It has experienced, efficient and reliable employees.
- The business is situated in a good location.
- It has good contacts with suppliers.
- It has well-known brand names that have not been valued and included as assets.

Sole traders' books
Goodwill is only entered in a sole trader's accounts when it has been purchased. The existence of goodwill in the financial statements usually means that the business was purchased as a going concern by the owner. That is, the owner did not start the business from scratch

.
Partnership books
although goodwill is not *normally* entered in the financial statements unless it has been purchased, sometimes it is necessary where partnerships are concerned.

This means that when something happens such as:
(*a*) Existing partners decide to change profit and loss sharing ratios, or
(*b*) A new partner is admitted, or
(*c*) A partner retires or dies,
then the ownership of goodwill by partners changes in some way.

Goodwill
Goodwill is an intangible asset. It can only exist if the business was purchased and the amount paid was greater than the value of the net assets. In many cases, goodwill represents the value of the reputation of the business at the time it was purchased.

Existence of goodwill
Goodwill does not necessarily exist in a business. If a business has a bad reputation, an inefficient labor force or other negative factors, it is unlikely that the owner would be paid for goodwill on selling the business.

Treatment of Goodwill in partnership change!
Any goodwill generated till date belongs to the old partners. So the goodwill

adjustment is done in such a way that old partners will benefit and the new partners will loose out. This is because goodwill is kept in line with the profit sharing ratio . The new partner ends up paying for goodwill and the old partner if he is leaving gets paid for his goodwill. This way all partners are treated fairly.

How do we have to treat for goodwill in a partnership change?

Method 1: Goodwill is kept in the books
In this method we create goodwill in the old profit sharing ratio in capital accounts and leave it (so that it can be shown in the balance sheet as a non current asset). This method is rarely used and is not preffered because its not in line with the Prudence and Money Measurement Concept.

Method 2: Goodwill is Created but then written off immediately
In this method we create goodwill in the old profit sharing ratio in capital accounts but then write it off in the new profit sharing ratio. This method is frequently used and follows Prudence and Money Measurement Concept.

Note: If Question doesn't specify clearly always use method 2

What if Goodwill is already recorded on the balance and has to be adjusted?

The amount of goodwill on the balance sheet is already in capital accounts of the partner so we only need to create the difference (increase) in the goodwill in old profit Sharing ratio (and then write off the entire amount if required to write it off. Alternate method would be to treat the change in goodwill in revaluation account and then write i off the full amount from the capital account.

Amalgamation
When two or more sole traders agree to merge their business, it would be known as amalgamation. When businesses are amalgamated or when a new partner admitted, GOODWILL may be considered.

Goodwill is an intangible asset it can only exist if the business was purchased and the amount paid was greater than the value of the net assets taken over. Good will has a monetary value but no physical existence

Change in profit sharing ratios of existing partners
sometimes the profit and loss sharing ratios have to be changed. Typical reasons are:

- A partner may now not work as much as in the past, possibly because of old age or ill-health.
- A partner's skills and ability may have changed, perhaps after attending a course or following an illness.
- A partner may now be doing much more for the business than in the past.

Admission of new partners

New partners may be admitted, usually for one of two reasons:

1 As an extra partner, either because the firm has grown or because someone is needed with different skills.
2 To replace partners who are leaving the firm. This might be because of retirement or death ofa partner.

Goodwill on admission of new partners

The new partner will be entitled to a share in the profits. Normally, he will also be entitled to the same share of the value of goodwill. It is correct to charge him for his taking over that share of the goodwill.

Goodwill adjustments when new partners admitted
this calculation is done in four stages:

1 Show value of goodwill divided between old partners in old profit and loss sharing ratios.
2 Then show value of goodwill divided between partners (including new partner) in the new profit and loss sharing ratio.
3 Goodwill gain shown: charge these partners for the gain.
4 Goodwill loss shown: give these partners an allowance for their losses.

Goodwill on withdrawal or death of partners

If there was no goodwill account
if no goodwill account already existed the partnership goodwill should be valued because the outgoing partner is entitled to his share of its value. This value is entered in double entry accounts:

- Debit goodwill account with valuation.
- Credit each old partner's capital account in profit sharing ratios.

If a goodwill account exists
1 If a goodwill account exists with the correct valuation of goodwill entered in it, no further action is needed.
2 If the valuation in the goodwill account needs to be changed, the following will apply:

<u>Goodwill undervalued</u>
Debit increase needed to goodwill account.
Credit increase to old partners' capital accounts in their old profit-sharing ratios.

<u>Goodwill overvalued</u>
Debit reduction to old partners' capital accounts in their old profit-sharing ratios.
Credit reduction needed to goodwill account.

Double Entry for Goodwill

1. **Creation of goodwill:**

Goodwill	xxx		
	CapitalA/cs		xxx

(Goodwill split in the **old** profit/loss sharing ratio)

2. **Eliminating / Writing off goodwill**

Capital A/cs	xxx		
		Goodwill	xxx

(Goodwill split in the **new** profit/loss sharing ratio)

Revaluation of partnership assets

Need for revaluation
it should be done whenever any of the following happens:

- a new partner is admitted;
- a partner leaves the firm;
- The partners change profit and loss sharing ratios.

What is the difference between revaluation account and realization(dissolution) account?

Revaluation account is made at the time of change in a partnership (see above) . This is done to change the values of asset to the current market value so that any gain or loss that has arise before the change can be adjusted in capital of partners. When making revaluation account if only take the changes in assets (the difference in values) and close it off in the old profit sharing ratio

Realization account is made when the partnership business is dissolved or sold . The aim of this account is to calculate the overall gain or loss upon closure of the partnership business. In this we first close the assets at net book value and compare it with the amount realized upon sale . The difference (overall gain or loss) is closed off in the profit sharing ratio as well.

Accounting for revaluation

Revaluation account is opened

1 *For each asset showing a gain on revaluation:*
Debit asset account with gain.
Credit revaluation account.

2 *For each asset showing a loss on revaluation:*
Debit revaluation account.
Credit asset account with loss.

3 *If there is an increase in total valuation of assets:*
Debit profit to revaluation account.
Credit **old** partners' capital accounts in **old** profit and loss sharing ratios.

4 *If there is a fall in total valuations of assets:*
Debit **old** partners' capital accounts in **old** profit and loss sharing ratios.
Credit loss to revaluation account.

Revaluation Account

Assets (Decrease in Value)	XX	Assets (Increase in Value)	XX
Liabilities (Increase in Value)	XX	Liabilities (Decrease in Value)	XX
Capital A/cs	XX	Capital A/cs	XX
(Net Gain on Revaluation)		(Net Loss on Revaluation)	
	XXX		XXX

Partnership Dissolution

Reasons for dissolution include the following:
(*a*) The partnership is no longer profitable, and there is no longer any reason to carry on trading.
(*b*) The partners cannot agree between themselves how to operate the partnership. They therefore decide to finish the partnership.
(*c*) Factors such as ill-health or old age may bring about the close of the partnership.

What happens upon dissolution
(*a*) the assets are disposed of;
(*b*) the liabilities of the firm are paid to everyone other than partners;
(*c*) the partners are repaid their advances and current balances – advances are the

amounts they have put in above and beyond the capital;
(*d*) the partners are paid the final amounts due to them on their capital accounts.

Any profit or loss on dissolution would be shared by all the partners in their profit and loss sharing ratios. Profits would increase capitals repayable to partners. Losses would reduce the capitals repayable.
If a partner's final balance on his capital and current accounts is in deficit, he will have to pay that amount into the partnership bank account.

Disposal of assets
The assets do not have to be sold to external parties. Quite often one or more existing partners will take assets at values agreed by all the partners. In such a case the partner may not pay in cash for such assets; instead they will be charged to his capital account.

Accounting for partnership dissolution
The main account around which the dissolution entries are made is known as the realization account. It is this account in which it is calculated whether the realisation of the assets is at a profit or at a loss.

The accounting entries needed are:

(A) Transfer book values of all assets to the realisation account:
Debit realisation account
Credit asset accounts

(B) Amounts received from disposal of assets:
Debit bank
Credit realisation account

(C) Values of assets taken over by partner without payment:
Debit partner's capital account
Credit realisation account

(D) Creditors paid:
Debit creditors' accounts
Credit bank

(E) Costs of dissolution:
Debit realisation account
Credit bank

(F) Profit or loss on realisation to be shared between partners in profit and loss sharing ratios:

If a **profit**: Debit realisation account
Credit partners' capital accounts

If a **loss:** Debit partners' capital accounts

Credit realisation account

(G) Pay to the partners their final balances on their capital accounts:
Debit capital accounts
Credit bank

Other Dissolution Entries

(*a*) Any provision such as bad debts or depreciation is to be transferred to the credit of the asset Account
(*b*) Discounts on creditors – to balance the creditors' account, transfer the discounts on creditors to the credit of the realisation account
(*c*) Transfer the balances on the partners' current accounts to their capital accounts
(*d*) A partner who owes the firm money because his capital account is in deficit must now pay the money owing

The *Garner* v *Murray* rule
It sometimes happens that a partner's capital account finishes up with a debit balance. Normally the partner will pay in an amount to clear his indebtedness to the firm. However, sometimes the partner will be unable to pay all, or part, of such a balance. In the case of ***Garner* v *Murray*** in 1904 (a case in England) the court ruled that, subject to any agreement to the contrary, such a deficiency was to be shared by the other partners *not* in their profit and loss sharing ratios but in the ratio of their 'last agreed capitals'. By 'their last agreed capitals' is meant the credit balances on their capital accounts in the normal balance sheet drawn up at the end of their last accounting period.

It must be borne in mind that the balances on their capital accounts after the assets have been realised may be far different from those on the last balance sheet. Where a partnership deed is drawn up it is commonly found that agreement is made to use normal profit and loss sharing ratios instead, thus rendering the *Garner* v *Murray* rule inoperative.

4 - Company Accounts

ARD Limited
Appropriation Account
For the year ended Dec 31, 2015

	Net profit after interest and tax (W)		XXX
Less	Transfer to General / Non-Current Asset Replacement reserves		(XXX)
Less	**Interim dividend**		
	Preference shares dividends	XXX	
	Ordinary shares dividends	XXX	(XXX)
Less	**Final Dividend**		
	Preference shares dividends	XXX	
	Ordinary shares dividends	XXX	(XXX)
	Retained profit for the year		XXX
Add	Retained profit b/f (Opening)		XXX
	Retained profit c/f (Closing)		XXX

(w) Calculation of Net Profit after Interest and Tax

	Net profit before interest and tax **(PBIT)**	XXX
Less:	Debentures / Loan interest (Debentures Amount X Rate %)	(XXX)
	Profit before tax **(PBT)**	XXX
	Less: Tax	(XXX)
	Profit after interest and tax **(PAT)**	**XXX**

ARD Limited
Statement of Financial Position / Balance Sheet Extract
For the year ended Dec 31, 2015

Equity & Reserves			
AUTRHORIZED SHARE CAPITAL:			
Preference shares Capital	XXX		
Ordinary Share Capital	XXX	XXX	
ISSUED / CALLED UP / PAID UP SHARE CAPITAL:			
Preference share Capital	XXX		
Ordinary Share Capital	XXX	XXX	
General Reserves (Opening + Current Year)		XXX	
Retained profit c/f (Closing)		XXX	
Equity & Reserves / Total Shareholder funds			**XXX**
Add: Debentures / Bank Loan			XXX
Total Capital Employed			**XXX**

Statement of changes in equity
A set of financial statements for a company must include a statement of changes in equity (SOCIE) in order to comply with the requirements of IAS1: **Presentation of Financial statements**.

The SOCIE is a part of the financial statements of a company, together with the statement of financial position, statement of comprehensive income, statement of cash flows and notes to the financial statements.

For each 'component of equity', a SOCIE shows the amount at the beginning of the period for that component of equity, changes during the period, and its amount at the end of the period.

The purpose of the statement is simply to show how the total amount of equity has changed during the year, and which parts of equity have increased or decreased in amount, and by how much.

ARD Limited

Statement of Changes in Equity for the year ended 31 Dec 2016

	Share Capital	Share Premium	Revaluation Reserve	General Reserve	Retained Earnings	Total Equity
Balance at Start	XXX	XXX	-	XXX	XXX	XXXX
Profit / (Loss) after interest and tax for the year	-	-	-	-	XX(XX)	XX(XX)
Dividends paid	-	-	-	-	(XX)	(XX)
New Share Issue	XX	XX	-	-	-	XXX
Transfer to General Reserve	-	-	-	XX	(XX)	-
Assets Revalued			XXX			XXX
Balance at End	XXX	XXX	XXX	XXX	XXX	XXXX

There are two main types of shares:

1 Preference shares. Holders of these shares get an agreed percentage rate of dividend before the ordinary shareholders receive anything.

2 Ordinary shares. Holders of these shares receive the remainder of the total profits available for dividends. There is no upper limit to the amounts of dividends they can receive.

Types of Preference Shares

Non-cumulative preference shares. These can receive a dividend up to an agreed percentage each year. If the amount paid is less than the maximum agreed amount, the shortfall is lost by the shareholder. The shortfall cannot be carried forward and paid in a future year.

Cumulative preference shares. These also have an agreed maximum percentage dividend. However, any shortfall of dividend paid in a year can be carried forward. These arrears of preference dividends will have to be paid before the ordinary shareholders receive anything.

Participating preference shares:
These shares entitle preference shareholders, not only to receive fix rate dividends but also additional distribution of profits in good trading years.

Redeemable and irredeemable preference shares

Most classes of preference shares are either redeemable or irredeemable.

 Redeemable preference shares will be bought back by the company at a date in the future, and cancelled. When a company buys back and cancels shares, the shares are 'redeemed'. Shares might be redeemed at their nominal value (par value) but the redemption price might be higher.

 Irredeemable preference shares will not be redeemed. Like ordinary shares, they are 'permanent' share capital.

In practice most preference shares issued by companies are redeemable.

Preference shares: equity or debt?
Companies are required to show equity capital separately from liabilities in the statement of financial position. Long-term debt is a non-current liability.
There is no special place in the statement of financial position for preference shares, and preference shares must be classified either as equity or as debt. The rules for deciding whether preference shares are equity or debt are fairly complex, but as a general rule:

 Redeemable preference shares are usually treated as debt capital in financial Reporting

 Irredeemable preference shares are likely to be included in equity.
A consequence of treating preference shares as either equity or debt capital, Depending on circumstances, the dividends paid to preference shareholders are also Treated in one of two ways:

 When preference shares are treated as debt capital and included in non-current

liabilities, dividends paid to the preference shareholders are reported as a finance cost in the income statement, similar to interest costs on a loan. These preference dividends reduce the reported profit.

 When preference shares are treated as equity, dividends paid to the shareholders are treated as equity dividends. Accounting for equity dividends is explained later.

Share capital: Different meanings

1) Authorized share capital. Sometimes known as registered capital or nominal capital. This is the total of the share capital which the company is allowed to issue to shareholders.

2) Issued share capital. This is the total of the share capital actually issued to shareholders. If all of the authorized share capital has been issued, then 1 and 2 above would be the same amount.

3) Called-up capital. Where only part of the amount payable on each issued share has been asked for, the total amount asked for on all the issued shares is known as the called-up capital.

4) Uncalled capital. This is the total amount which is to be received in future relating to issued share capital, but which has not yet been asked for.

5) Calls in arrears. The total amount for which payment has been asked for (i.e. 'called for'), but has not yet been paid by shareholders.

6) Paid-up capital. This is the total of the amount of share capital which has been paid for by shareholders.

Types of Share Prices

- Nominal Value / Par Value / Face Value
- Issue Price
- Market Value

Dividends (Preference and Ordinary)

the amount given to shareholders as their share of profits in the company.

Interim and final dividends

Many companies make two (or possibly more) dividend payments each year to the ordinary shareholders.

 There might be a payment during the financial year, based on profits for the first six months of the year. This mid-year dividend is called an interim dividend.

 There is usually a payment after the end of the financial year, based on profits for the full year. This is called a final dividend.

Proposed Dividend
Dividend announced or declared, but not yet issued to the shareholders. It is considered to be a liability or disclosed through notes to the accounts.

Note: Dividend payment by be expressed either on "per share basis" or as a "%age of the share capital".

Difference between

Ordinary shares	Preference shares	Debentures
Owner of the company	Hybrid	Trade Payables of a company
No fix rate of dividend	Carry fix rate of dividend	Carry fix rate of interest
Dividend cannot be accumulated	Dividends can be accumulated in case of Cumulative Preference Shares.	Interest must be paid in the year, cannot be accumulated
Can vote in AGM	Cannot vote in AGM	Cannot vote in AGM
Last one to get paid upon liquidation	They get paid after debenture holders get paid	First one to get paid upon liquidation
Most Risk	Moderate Risk	Least Risk
Highest Return	Moderate Return	Lowest Return

Public Issue: This is normal issue of shares to general public. A company can issue shares to public to raise more capital , this is done at the market price. Public issues have higher cost of issue (this means the company has to incur high expenses when issuing the shares I.e. advertising and administration). The main advantage of issuing shares is that no interest has to be paid on it and the company only have to provide a return when they actually make profits.

Rights issues: new share issues for cash

Occasionally, a company might issue new shares to obtain cash. An issue of new shares for cash might be in the form of a rights issue.

In a rights issue the existing shareholders have the right to purchase the new shares in proportion to their existing shareholding. For example in a 1 for 3 rights issue, existing shareholders are given the opportunity to buy one new share for every three shares they currently hold.

If existing shareholders do not want to buy the new shares that are offered to them, the shares will be sold to other investors.

When a stock market company makes a rights issue, the price at which the new shares are offered is below the current market price for the shares that are already in issue.

Advantages of a rights issue
There are several advantages with issuing shares in the form of a rights issue.

- A rights issue is a method of raising new capital in the form of cash. Companies might need new capital to expand their business.

- Existing shareholders have the opportunity to buy a proportion of the new shares, so that they retain the same proportion of the total shares in the company as before.

- Since the price of the new shares is below the current market price, the issue should be attractive to shareholders.

Note: A country's company law might require new issues of shares for cash to be made as a rights issue, unless the shareholders agree otherwise. (UK company law, for example, gives shareholders these rights.)

Disadvantages of a rights issue
There are also some disadvantages with rights issues.

- A rights issue usually involves raising a large amount of cash. When a company does not need a large amount of cash, it will try to persuade the shareholders to permit a different method of issuing shares to raise the cash required.

- A rights issue might be unsuccessful when the stock market is depressed and share prices are falling.

- A rights issue can be expensive. It is usually cheaper to obtain new finance by borrowing.

Bonus issue of shares (Capitalization issue)
A bonus issue of shares (also called a capitalization issue) is an issue of free new shares to existing shareholders in proportion to their existing shareholding. For example, if there is a 1 for 3 bonus issue, shareholders will receive one new share free of charge for every three shares they currently hold.

- The company raises no money from a bonus issue.
- A bonus issue is simply a way of converting reserves into share capital.

A bonus issue is accounted for in the main ledger as follows:
- Debit: Reserves (with the nominal value of the new shares)
- Credit: Ordinary share capital

The reserves are reduced when there is a bonus issue, and the nominal value of the issued share capital is increased.

The reserve that is reduced (debited) is normally the **share premium**. If the share premium is not big enough, it is reduced to zero, and any remaining reduction of reserves is made by reducing retained earnings.

Advantages of a bonus issue
A company whose shares are traded on a stock market can use a bonus issue to increase the number of shares in issue. This will bring down the share price and might help to make the shares more marketable.

A bonus issue can be used to reduce the share premium account, or even remove the share premium account entirely from the statement of financial position.

Disadvantages of a bonus issue
Except for the advantages listed above, a bonus issue serves no practical purpose.

No cash is raised from the issue.
If a bonus issue exceeds the size of the share premium account, retained earnings will be reduced by the issue. This would convert profits that are distributable as profits into long-term share capital that cannot be distributed.

Differences between Rights and Bonus Issue

Right Issue	Bonus Issue
Issue is made to maintain the proportional ownership of existing shareholders	It is made when company makes profit but does not have sufficient cash to pay dividends
Shares are issued at a price between nominal value and market value	Shares are issued without charging price
As they are not free shareholders may not subscribe for right issue	As they are free so all shareholder take these shares
As a result of right issue total equity of the company increases	Bonus issue has no effect on the net assets of the business.

Reserves

Reserves are surplus not yet distributed as profit among its share holders. It is the profit which is not appropriated as dividends. Reserves represent the claim that owners have because of the wealth created by the company over the years but not distributed to them.

There are two types of reserves.

1. **Revenue reserves** Those generally result from profits earned by the company but not appropriated as dividend. These represents increase in company's wealth and are available for the distribution of dividends to the shareholders.

Examples are: Retained Earnings / General Reserve/ Non Current Asset Replacement Reserve

2. **Capital reserves** Undistributed profits of a company that for various reasons are not regarded as distributable to share holders as dividend. These include certain profits on the revaluation of capital assets and sum received from the issuance of share over it's per value (Share premium). Capital reserves are also known as UNDISTRIBUTABLE RESERVES".

Examples are: Share Premium / Revaluation Reserve (Surplus)

Revaluation Reserve

This is created when the value of an asset is increased in the books due to a permenant increase in market value. The amount of revaluation reserve is difference between net book value at the time of revaluation and the market value. This is a gain which cannot be transferred to the profit and loss account as it is still not realized (earned) by the company. This reserve can be used in the future if the same asset (on which the reserve was created) value goes down (the loss can be written off against this reserve). This can also be used for Bonus Issue

Share Premium

Share premium occurs when a company issues shares at a price above its nominal (par) value. This excess of share price over nominal value is what is known as share premium.

What are the uses of Share Premium?

- Issue Bonus Shares
- Write off Formation (Preliminary Expenses)
- Write off Goodwill

WHAT IS CONVERTIBLE DEBENTURE/CONVERTIBLE LOAN STOCK?

Special type of debenture which can be converted into shares at a specified date. Upon conversion the debenture holder receives ordinary shares and he gives away is debenture certificate. The shares are sold to them in return of debentures, so that's usually done at market price of share (so share premium will be involved) .

For example A company has convertible loan stock worth $60000. They decided to convert it into shares by issuing 10 Ordinary shares of $1 each for every $15 of debenture. This means company will issue 40000 shares to settle the debenture , each share which is for $1 was sold for $1.5

Debit :	Debenture 60000
Credit :	Ordinary Shares 40000
	Share premium 20000

PURCHASE AND SALE OF BUSINESS

Purchased Goodwill is calculated by the company which is buying the business. The formula used is:

PURCHASE CONSIDERATION (PURCHASE PRICE) – FAIR VALUE OF NET ASSETS ACQUIRED.

IF THE GOODWILL IS NEGATIVE IT IS RECORED AS A NEGATIVE ASSET IN THE BALANCE SHEET i.e. in brackets. It is called negative goodwill. We also use to call it capital reserve.

The Business which is being sold will not calculate goodwill; in fact it will calculate gain or loss on realization (sale), which will be done through a realization account

Sale of Business	**Purchase of Business**
Assets are recorded at net book values in realization for calculating gain or loss	Assets are included at revalued amount (fair value) when calculating goodwill
Profit or Loss on dissolution is shared by partners in profit sharing ratio and become part of capital	Goodwill is directly shown in the balance sheet as an intangible asset. In brackets if goodwill is negative
Shares given to seller are recorded at market value (including premium) in his capital account	Shares issued are recorded in the financed by section of balance sheet , where we separate par value and share premium
Include all asset and current liabilities in your realization account, irrespective of takeover or not (excluding bank account only include if take over).	Only include those assets and current liabilities which are taken over in the calculation of goodwill.

Note: Bank Account will only be taken over if the question says clearly, or if it says all assets and liabilities were taken over, or the entire business was taken over. If the seller still has to receive or make a payment from bank account, (say for debtors or creditors) and the question is silent about the bank account, assume it was not taken over.

5 – Cash Flow Statements

A cash flow statement is intended to disclose the information on actual movement of cash in the business during the financial year. It helps to assess the liquidity of the business and to judge the quality of profit earned by the business which can not to be assessed from the Income statement (Trading, Profit and Loss account) and Balance Sheet.

The cash flow statement outlines the sources of cash received and specifies activities on which the cash was spent. It explains why business has overdrawn from the bank in a year although it has earned a good amount of profit.

The cash flow statement is a bridge between the two balance sheets and it explains in details the changes took place during the year.

Why is Cash flow Statement important?

The statement of cash flows tells you how much cash went into and out of a company during a specific time frame such as a quarter or a year. You may wonder why there's a need for such a statement because it sounds very similar to the income statement, which shows how much revenue came in and how many expenses went out.

The difference lies in a complex concept called accrual accounting. Accrual accounting requires companies to record revenues and expenses when transactions occur, not when cash is exchanged. While that explanation seems simple enough, it's a big mess in practice, and the statement of cash flows helps investors sort it out.

The statement of cash flows is very important to investors because it shows how much actual cash a company has generated. The income statement, on the other hand, often includes noncash revenues or expenses, which the statement of cash flows excludes.

One of the most important traits you should seek in a potential investment is the firm's ability to generate cash. Many companies have shown profits on the income statement but stumbled later because of insufficient cash flows. A good look at the statement of cash flows for those companies may have warned investors that rocky times were ahead.

The Three Elements of the Statement of Cash Flows Because companies can generate and use cash in several different ways, the statement of cash flows is separated into three sections: cash flows from operating activities, from investing activities, and from financing activities.

The cash flows from operating activities section shows how much cash the company generated from its core business, as opposed to other activities such as investing or borrowing. Investors should look closely at how much cash a firm generates from its operating activities because it paints the best picture of how well the business is producing cash that will ultimately benefit shareholders.

The cash flows from investing activities section shows the amount of cash firms spent on investments. Investments are usually classified as either capital expenditures--money spent on items such as new equipment or anything else needed to keep the business running--or monetary investments such as the purchase or sale of money market funds.

The cash flows from financing activities section includes any activities involved in transactions with the company's owners or debtors. For example, cash proceeds from new debt, or dividends paid to investors would be found in this section.

To summarize

The cash flow statement helps the shareholders, investors and others users in assessing

* Company's ability to generate cash internally (operating activites) to meet its obligations and to pay dividends
* The causes of changes in liquidity (cash inflows and outflows)
* Whether the business can generate to cash to service finance and pay taxes and also maintain its fixed assets
* How much the business is relied on long term finance
* How much cash has been raised externally
* Indication of future cash flows for capital investments
* Reconciles profitability with liquidity

What is the Difference between Cash budget and Cashflow statements?

Cash flow Statements	Cash Budgets
Based on Actual transactions	Based on Future estimates
Based on Strict format	Prepared as per company's policy
Published for external users eg Shareholders, lenders,	It is for managements internal use
It is required by law to make cash flow	No legal Requirement.

Cash Flow from Operating Activities

	$	$
Operating Profit (PBIT)		XXX
Adjustments		
Add back: Depreciation	XX	
Loss on Disposal	XX	
Increase in Provisions	XX	
Less: Gain on Disposal	(XX)	
Decrease in Provisions	(XX)	XXX
Working Capital Changes		
Increase in Inventory	(XX)	
Increase in Receivables	(XX)	
Increase in Payables	XX	XXX
Less: Interest Paid	XX	
Tax Paid	XX	(XXX)
Net Cash flow from / (Used) in Operating Activities		**XXX**

Cash flow from Investing Activities		
	$	**$**
Purchase of NCA / Other investments		(XXX)
Sale of NCA / Other investments		XXX
Dividends received from investments		XXX
Net Cash flow from / (Used) in Investing Activities		**XXX**

Cash flow from Financing Activities		
	$	**$**
Issue of Shares / Debentures		XXX
Redemption of Shares / Debentures		(XXX)
Dividend Paid		(XX)
Net Cash flow from / (Used) in Financing Activities		**XXX**

		$
Net Increase / (Decrease) in Cash / Cash Equivalents		**XX/(XX)**
Cash / Cash Equivalents as at **start** of the year		**XX/(XX)**
Cash / Cash Equivalents as at **end** of the year		**XXX/(XX)**

6 - International Accounting Standards

IAS 1 Presentation of financial statements

In most jurisdictions the structure and content of financial statements are defined by local law. IASs are, however, designed to work in any jurisdiction and therefore require their own set of requirements for presentation of financial statements. This is provided in IAS 1, revised 2007.

A complete set of financial statements comprises:
• a statement of financial position (balance sheet)

• either
– a statement of comprehensive income, or
– an income statement plus a statement showing other comprehensive income

• a statement of changes in equity

• a statement of cash flows

• accounting policies and explanatory notes.

Statement of changes in equity
The statement of changes in equity provides a summary of all changes in equity arising from transactions with owners in their capacity as owners. This includes the effect of share issues and dividends. Other non-owner changes in equity are disclosed in aggregate only.

Statement of comprehensive income
Total comprehensive income is the realised profit or loss for the period, plus other comprehensive income. Other comprehensive income is income and expenses that are not recognised in profit or loss (i.e. they are recorded in reserves rather than as an element of the realised profit for the period). Other comprehensive income includes any change in the revaluation surplus.

IAS 1 allows a choice of two presentations of comprehensive income:

(1) A statement of comprehensive income showing total comprehensive income **, or**

(2) An income statement showing the realised profit or loss for the period PLUS a statement showing other comprehensive income.

IAS 2 inventory valuation

• **Inventories** are assets:
– held for sale in the ordinary course of business;
– in the process of production for such sale; or
– in the form of materials or supplies to be consumed in the production process or in the rendering of services.

• **Net realisable value** is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

• **Fair value** is the amount for which an asset could be exchanged or a liability settled between knowledgeable, willing parties in an arm's length transaction.

Inventories can **include** any of the following:

• **Goods purchased and held for resale**, eg goods held for sale by a retailer, or land and buildings held for resale
• **Finished goods** produced
• **Work in progress** being produced
• Materials and supplies awaiting use in the production process (**raw materials**)

Measurement of inventories
The standard states that **'Inventories should be measured at the lower of cost and net realisable value**.'

Cost of inventories
The cost of inventories will consist of all costs of:
• **Purchase**
• **Costs of conversion**
• **Other costs** incurred in bringing the inventories to their **present location and condition**

Costs of purchase
The standard lists the following as comprising the costs of purchase of inventories:
• **Purchase price** *plus*
• **Import duties** and other taxes *plus*
• Transport, handling and any other cost **directly attributable** to the acquisition of finished goods, services and materials *less*
• **Trade discounts**, rebates and other similar amounts

Costs of conversion
Costs of conversion of inventories consist of two main parts.
(a) Costs **directly related** to the units of production, eg direct materials, direct labour
(b) Fixed and variable **production overheads** that are incurred in converting materials into finished goods, allocated on a systematic basis.

Net realisable value (NRV)
As a general rule assets should not be carried at amounts greater than those expected to be realised from their sale or use. In the case of inventories this amount could fall below cost when items are **damaged or become obsolete**, or where the **costs to completion have increased** in order to make the sale.

In fact we can identify the principal situations in which **NRV is likely to be less than cost**, ie where there has been:
(a) An **increase in costs** or a **fall in selling price**
(b) A **physical deterioration** in the condition of inventory
(c) **Obsolescence** of products
(d) A decision as part of the company's marketing strategy to manufacture and sell products at a **loss**
(e) **Errors in production or purchasing**

IAS 8 Accounting policies, changes in accounting estimates and errors

Accounting policies are the specific principles, bases, conventions, rules and practices adopted by an entity in preparing and presenting financial statements.

• A **change in accounting estimate** is an adjustment of the carrying amount of an asset or a liability or the amount of the periodic consumption of an asset, that results from the assessment of the present status of, and expected future benefits and obligations associated with, assets and liabilities. Changes in accounting estimates result from new information or new developments and, accordingly, are not corrections of errors.

• **Prior period errors** are omissions from, and misstatements in, the entity's financial statements for one or more prior periods arising from a failure to use, or misuse of, reliable information that:

– Was available when financial statements for those periods were authorised for issue, and

– Could reasonably be expected to have been obtained and taken into account in the preparation and presentation of those financial statements.
Such errors include the effects of mathematical mistakes, mistakes in applying accounting policies, oversights or misinterpretations of facts, and fraud.

• **Retrospective application** is applying a new accounting policy to transactions, other events and conditions as if that policy had always been applied.

Retrospective restatement is correcting the recognition, measurement and disclosure of amounts of elements of financial statements as if a prior period error had never occurred.

• **Prospective application** of a change in accounting policy and of recognising the effect of a change in an accounting estimate, respectively, are:

– Applying the new accounting policy to transactions, other events and conditions occurring after the date as at which the policy is changed; and

– Recognising the effect of the change in the accounting estimate in the current and future periods affected by the change.

• **Impracticable** Applying a requirement is impracticable when the entity cannot apply it after making every reasonable effort to do so.

IAS 10: Events after the reporting period

Events occurring after the reporting period are those events, both favourable and unfavourable, that occur between the end of the reporting period and the date on which the financial statements are authorised for issue. Two types of events can be identified.

• Those that provide evidence of conditions that existed at the end of the reporting period – ***adjusting***

• Those that are indicative of conditions that arose after the reporting period – ***non-adjusting***

Events requiring adjustment

The standard requires adjustment of assets and liabilities in certain circumstances.
An entity shall adjust the amounts recognised in its financial statements to reflect adjusting events after the reporting period. An entity shall not adjust the amounts recognised in its financial statements to reflect non-adjusting events after the reporting period.

Examples of **adjusting events** would be:
• evidence of a permanent diminution in property value prior to the year end
• sale of inventory after the reporting period for less than its carrying value at the year end
• insolvency of a customer with a balance owing at the year end
• amounts received or paid in respect of legal or insurance claims which were in negotiation at the year end
• determination after the year end of the sale or purchase price of assets sold or purchased before the year end

Events not requiring adjustment

The standard then looks at events which do **not** require adjustment.

The standard gives the following examples of events which do **not** require adjustments:
• acquisition of, or disposal of, a subsidiary after the year end
• announcement of a plan to discontinue an operation
• major purchases and disposals of assets
• destruction of a production plant by fire after the reporting period
• announcement or commencing implementation of a major restructuring
• share transactions after the reporting period
• litigation commenced after the reporting period

But note that, while they may be non-adjusting, some events after the reporting period will require disclosure.

If non-adjusting events after the reporting period are material, non-disclosure could influence the economic decisions of users taken on the basis of the financial statements.

Accordingly, an entity shall disclose the following for each material category of non-adjusting event after the reporting period:

(a) the nature of the event; and
(b) an estimate of its financial effect, or a statement that such an estimate cannot be made.

IAS 16 Property, plant and equipment

IAS 16 covers all aspects of accounting for property, plant and equipment. This represents the bulk of items which are **'tangible' non-current assets**..

• **Property, plant and equipment** are tangible assets that:
– are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and
– are expected to be used during more than one period.

• **Cost** is the amount of cash or cash equivalents paid or the fair value of the other consideration given to acquire an asset at the time of its acquisition or construction.

• **Residual value** is the net amount which the entity expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal.

• **Entity specific value** is the present value of the cash flows an entity expects to arise from the continuing use of an asset and from its disposal at the end of its useful life, or expects to incur when settling a liability.

• **Fair value** is the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction.

• **Carrying amount** is the amount at which an asset is recognised in the statement of financial position after deducting any accumulated depreciation and accumulated impairment losses.

• An **impairment loss** is the amount by which the carrying amount of an asset exceeds its recoverable amount.

IAS 36 Impairment of assets

Impairment is determined by comparing the carrying amount of the asset with its recoverable amount.

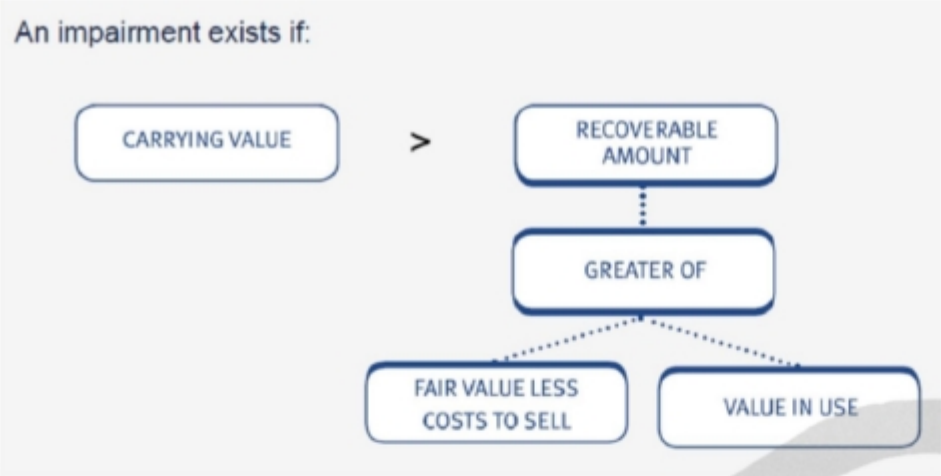
This is the higher of its **fair value less costs to sell** and its **value in use**.

• **Impairment**: a fall in the value of an asset, so that its 'recoverable amount' is now less than its carrying value in the statement of financial position.

• **Carrying amount**: is the net value at which the asset is included in the statement of financial position (ie after deducting accumulated depreciation and any impairment losses).

The **recoverable amount of an asset** should be measured as the *higher value* of:
(a) the asset's fair value less costs to sell; and
(b) its value in use.

If the recoverable amount of an asset is lower than the carrying amount, the carrying amount should be reduced by the difference (ie the impairment loss) which should be charged as an expense in profit or loss.



IAS 37 *Provisions, contingent liabilities and contingent assets*

The key aim of IAS 37 is to ensure that **provisions are made only** where there are valid grounds for them.

A **provision** is a **liability** of uncertain timing or amount.

A **liability** is a present obligation of the entity arising from past events , the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.

IAS 37 states that a provision should be **recognised** as a liability in the financial statements when:

• An entity has a **present obligation** (legal or constructive) as a result of a past event
• It is probable that an **outflow of resources embodying economic benefits** will be required to settle the obligation
• A **reliable estimate** can be made of the amount of the obligation

IAS 37 defines a **constructive obligation** as
'An obligation that derives from an entity's actions where:

• by an established pattern of past practice, published policies or a sufficiently specific current statement the entity has indicated to other parties that it will accept certain responsibilities; and

• as a result, the entity has created a valid expectation on the part of those other parties that it will discharge those responsibilities.'

Measurement of provisions
The amount recognised as a provision should be the best estimate of the expenditure required to settle the present obligation at the end of the reporting period.

An **onerous contract** is a contract entered into with another party under which the unavoidable costs of fulfilling the terms of the contract exceed any revenues expected to be received from the goods or services supplied or purchased directly or indirectly under the

contract and where the entity would have to compensate the other party if it did not fulfil the terms of the contract.

Examples of possible provisions

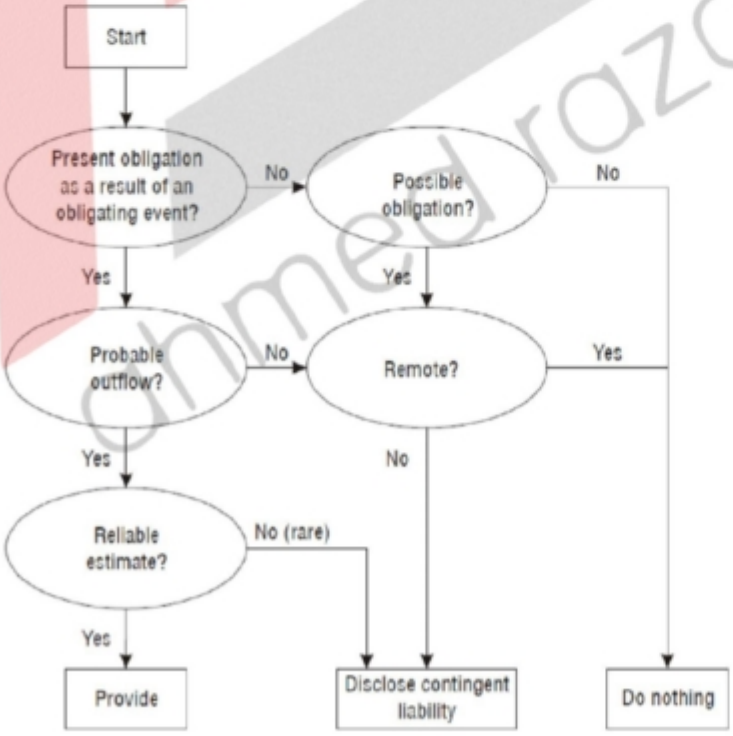
- Warranties.
- Major repairs.
- Self insurance.
- Environmental contamination.
- Decommissioning or abandonment costs.
- Restructuring.

IAS 37 defines a **contingent liability** as:

• A possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity; or
• A present obligation that arises from past events but is not recognised because:
– It is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation; or
– The amount of the obligation cannot be measured with sufficient reliability.

IAS 37 defines a **contingent asset** as:

A possible asset that arises from past events and whose existence will be confirmed by the occurrence or non-occurrence of one or more uncertain future events not wholly within control of the entity.



Degree of probability of an outflow/inflow of resources	Liability	Asset
Virtually certain (90% or above)	Provide	Recognise
Probable (50% to 89%)	Provide	Disclose by Note
Possible (less than 50%)	Disclose by Note	No disclosure
Remote (5% to 10%)	No disclosure	No disclosure

IAS 38 Intangible assets

An **intangible asset** is an identifiable non-monetary asset without physical substance The asset must be:

(a) controlled by the entity as a result of events in the past, and
(b) something from which the entity expects future economic benefits to flow.

Internally generated goodwill may **not** be recognised as an **asset**.

Research
Research activities by definition do not meet the criteria for recognition under IAS 38. This is because, at the research stage of a project, it cannot be certain that future economic benefits will probably flow to the entity from the project. There is too much uncertainty about the likely success or otherwise of the project.

Research costs should therefore be written off as an expense as they are incurred.

Development
Development costs may qualify for recognition as intangible assets provided that the following strict criteria can be demonstrated.

(a) The **technical feasibility** of completing the intangible asset so that it will be available for use or sale.
(b) Its **intention** to complete the intangible asset and use or sell it.
(c) Its **ability** to use or sell the intangible asset.
(d) How the intangible asset will generate **probable future economic benefits**. Among other things, the entity should demonstrate the existence of a market for the output of the intangible asset or the intangible asset itself or, if it is to be used internally, the usefulness of the intangible asset.
(e) Its ability to **measure** the expenditure attributable to the intangible asset during its development reliably.

Intangible assets should be initially be measured at cost, but subsequently they can be carried at **cost** or at a **revalued amount**.

7 - Auditing and Stewardship of Limited Companies

The role and function of external auditors

Financial statements are used for a variety of purposes and decisions. For example, financial statements are used by owners to evaluate management's stewardship, by investors for making decisions about whether to buy or sell securities, by credit rating services for making decisions about credit worthiness of entities, and by bankers for making decisions about whether to lend money. Effective use of financial statements requires that the reader understand the roles of those responsible for preparing and auditing financial statements.

Financial statements are the representations of management. When using management's statements, the reader must recognize that the preparation of these statements requires management to make significant accounting estimates and judgments, as well as to determine from among several alternative accounting principles and methods those that are most appropriate within the framework of generally accepted accounting standards.

In contrast, the auditor's responsibility is to express an opinion on whether management has fairly presented the information in the financial statements. In an audit, the financial statements are evaluated by the auditor, who is objective and knowledgeable about auditing, accounting, and financial reporting matters.

During the audit, the auditor collects evidence to obtain reasonable assurance that the amounts and disclosures in the financial statements are free of material misstatement. However, the characteristics of evaluating evidence on a test basis, the fact that accounting estimates are inherently imprecise, and the difficulties associated with detecting misstatements hidden by collusion and careful forgery, prevent the auditor from finding every error or irregularity that may affect a user's decision.

The auditor also evaluates whether audit evidence raises doubt about the ability of the client to continue as a going concern in the foreseeable future. However, readers should recognize that future business performance is uncertain, and an auditor cannot guarantee business success.

Through the audit process, the auditor adds credibility to management's financial statements, which allows owners, investors, bankers, and other creditors to use them with greater confidence.

The auditor expresses his assurance on the financial statements in an auditor's report. The report, which contains standard words and phrases that have a specific meaning, conveys the auditor's opinion related to whether the financial statements fairly present the entity's financial position and results of operations. If the auditor has reservations about amounts or disclosures in the statements, he modifies the report to describe the reservations.

The auditor's report and management's financial statements are only useful to those who make the effort to understand them.

Introduction to Audits and Financial Reporting
In today's economy, information and accountability have assumed a larger role in our society. As a result, the independent audit of an entity's financial statements is a vital service to investors, creditors, and other participants in economic exchanges.

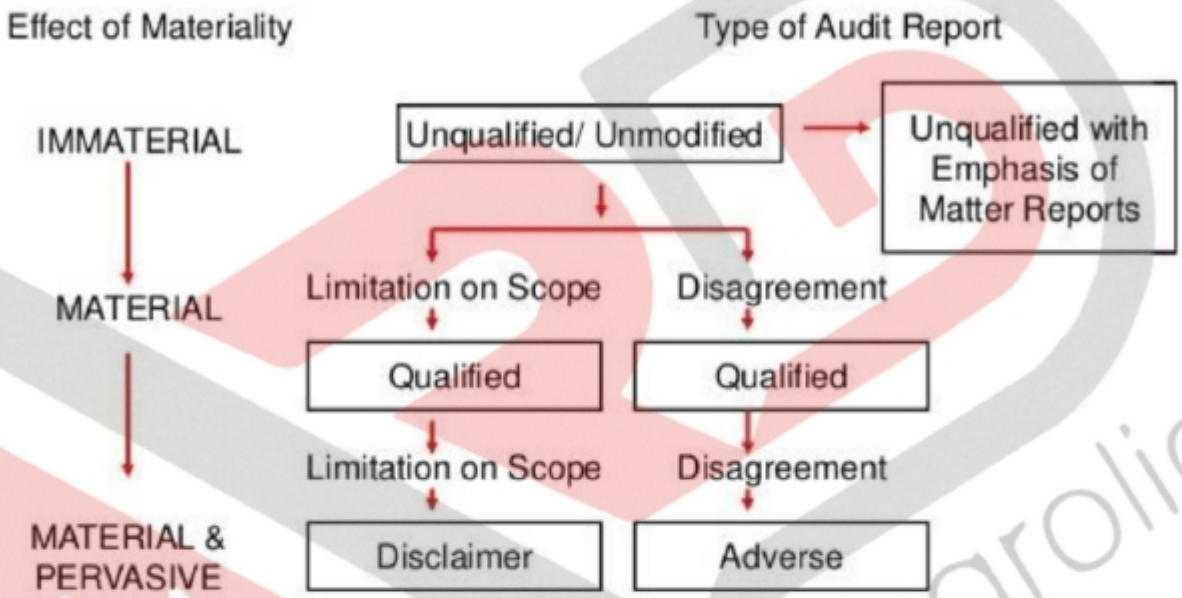
The auditor communicates audit results in a standard report. The auditor's is based on rigorous work performed by highly trained professionals.

Need for Financial Statements
Regardless of the type of entity — whether in the public or private sector, or whether for profit or not — all entities use economic resources to pursue their goals. Financial statements enable an entity's management to provide useful information about its financial position at a particular point in time and the results of its operations and its changes in financial position for a particular period of time. External financial reporting for these entities is directed toward the common interest of various users. Financial statements provide owners with information about the stewardship of management. They also provide a basis for investors' decisions about whether to buy or sell securities; for credit rating services' decisions about the credit worthiness of entities; for bankers' decisions about whether to lend money, and for decisions of other creditors, regulators, and others outside of the entity.

The Financial Statement Audit
The objective of the financial statement audit is to add credibility to management's financial statements. Access to capital markets, mergers, acquisitions, and investments in an entity depends not only on the information that management provides in financial statements, but also on the degree of assurance that the financial statements are free of material error and fraud. In the process of providing reasonable assurance that financial statements are fairly presented, an auditor assesses whether:

- Transactions and amounts that should have been recorded are reported in the financial statements.
- The assets and liabilities reported in the financial statements existed at the balance sheet date, and the transactions reported in the financial statements occurred during the period covered by the statements.
- Reported assets are owned by the entity and liabilities owed by the entity at the balance sheet date are reported.
- The financial statement amounts (assets, liabilities, revenues, and expenses) are appropriately valued in conformity with accounting standards.
- The financial statement amounts are properly classified, described, and disclosed in conformity with accounting standards.

The independent auditor forms an opinion on the overall fairness of the financial statements by testing the above representations. The opinion is communicated in the auditor's report. The standard auditor's report contains an unqualified opinion, which means that an auditor believes, without reservation, that tie financial statements present fairly the entity's financial position and results of operations in conformity with accounting standards. A qualified report, in contrast, notifies financial statement readers about concerns the auditor has about matters affecting the financial statements (such as the selection of accounting policies or the method of their application or the adequacy of financial statement disclosure) or about limitations in the scope of the auditor's work. Therefore, a user should understand the implications of a qualified opinion and read this ype of report carefully.



Responsibility for Financial Statements

Effective use of financial statements requires that the reader understand the roles of those responsible for preparing, auditing, and using financial statements.

Management is responsible for the content of its financial statements, regardless of an organization's size or form of ownership. The preparation of these statements requires management to make significant judgments and estimates. Management's responsibility for financial statements is not lessened by having the statements audited.

The Independent Audit

An audit allows creditors, bankers, investors, and others to use financial statements with confidence. While the audit does not guarantee financial statement accuracy, it provides users with a reasonable assurance that an entity's financial statements give a true and fair view (or "present fairly") its financial position, results of operations, and changes in financial position in conformity with accounting standards. An audit enhances users' confidence that financial statements do not contain material error and fraud because the auditor is an independent, objective professional who is knowledgeable of the entity's business and financial reporting requirements.

An Auditor Is Independent

The principles of independence and objectivity impose the obligation on auditors to be fair, intellectually honest, and free of conflicts of interest in relation to clients. For example, an auditor may not be financially involved with his client nor accept goods or services from him except on business terms no more favourable than those generally available to others. This ensures that an auditor is objective and, therefore, enables the public to place faith in the audit function.

Although the entity is the auditor's client, the auditor has a significant responsibility to users of the audit report. The auditor must not subordinate his judgment to any specific group, including his client. The auditor's independence, integrity, and objectivity encourages third parties to confidently use the audited financial statements.

Auditor's Responsibility for Detecting Material Error and Fraud

Auditors are responsible for planning and performing an audit to obtain reasonable assurance that the financial statements are free of material error and fraud. The concept of reasonable assurance, however, does not insure or guarantee the accuracy of the financial statements. The following characteristics of an audit are important to understanding the difference between reasonable assurance and a guarantee or absolute assurance.

Detection of Error or Fraud

In an audit of financial statements, the auditor assesses the risk of material error and fraud and, accordingly, designs the audit to provide reasonable assurance of detecting significant errors or fraud. However, some irregularities or frauds are concealed through forgery or collusion (among client personnel or outsiders). Auditors are not trained to detect forgeries, nor will customary audit procedures detect conspiracies. As a result, a properly designed and executed audit may not detect material fraud. Therefore, audits can only provide reasonable assurance that financial statements are free of material misstatements and cannot absolutely guarantee the accuracy of financial statements. Likewise, the auditor may have some responsibility for the detection of certain types of illegal acts.

Materiality in the Financial Statements

Although financial statements contain approximations, they must reflect a reasonable degree of accuracy. If the degree of misstatement is significant enough to influence the decisions of financial statement users, it is considered material.

Materiality is a relative concept. For example, a $100,000 misstatement of sales for a company with a $200,000 net income is material, while that same misstatement for a company with a $5,000,000 net income may be immaterial. In addition, qualitative characteristics influence materiality. For example, an error in the financial statements might be small as a percentage of a critical component. This small error, however, may be considered material because it could cause an entity to breach a loan agreement, which could result in a misclassification of current and noncurrent debt. An auditor considers both quantitative and qualitative aspects of errors found during the audit..

Reporting Material Error and Fraud
If material error or fraud are discovered and not corrected in the financial statements, the auditor brings such items to the attention of management and issues a qualified opinion.

The role of directors and their responsibilities to shareholders (stewardship)

BOARD COMPOSITION

The UK Corporate Governance code consists of two sections relating to the board of directors. The first, "Leadership" deals with the makeup of the board, dealing with the structure and defining key roles.

Beyond the UK board structure can differ significantly, possibly extending to the use of two boards rather than one and with differing levels of concern or support for Chair and Independent directors roles. The general trend towards globalisation and the need to attract investment from global financial institutions suggests that, over a long period of time, the structure of boards will rationalise towards a UK/US standard, whilst still allowing for local variants.

Board roles and responsibilities

Every board of directors has a unique sense of its role and responsibilities. However, whatever perception they have, it is important that they take the time to tangibly define and document their role so that it can be used to provide shareholders with a sense of assurance that the board has a formal view of this issue. Having defined their role the board can also use this as a basis for performance appraisal and through this attempt to continuously improve on their performance.

Responsibilities of the board

- To act in the shareholder's best interests.
- To safeguard the assets of the organisation.
- To uphold the law.
- To uphold the Corporate Governance Code.
- To uphold stakeholder obligations.

Roles of the board

- To define and implement strategy.
- To monitor corporate performance.
- To define risks and exact internal control.
- To focus on shareholder relationships.
- To evaluate board performance.

Non-executive directors (NEDs)

The UK code is explicit about the importance and need for sufficient NEDs to sit alongside the executive on the board of directors. A NED is an outsider, voted onto the board by shareholders to act in a monitoring capacity on their behalf. At least half of the board must be made up of NEDs.

CEO / Chair split

The Chairman is the leader of the board of directors. He must operate to the same independence criteria as NEDs in order to ensure that he is deemed to act in the interests of shareholder's without undue influence of the executive directors.

THE BOARD IN OPERATION

Board operation can be viewed in relation to the execution of their roles and responsibilities. Corporate governance offers advice to improve on the ability of the board to perform these tasks through section B of the code, "Effectiveness".

This is the largest section of the UK Corporate Governance Code, impressing the need to employ fundamental management functions at the top of the organisation in line with those that permeate all other levels of the company. The fact that the code needs to offer advice as to the need to train and induct directors, for example, is a deep criticism of the lack of professionalism at the top of many organisations.

Performance appraisal

The board must evaluate its performance annually and commit to a process of continuous improvement. The criteria for such a review should be formally documented by the board and the results of the review included in disclosure.

True and Fair View of Financial Statements

Definition

True and fair view in auditing means that the financial statements are free from material misstatements and faithfully represent the financial performance and position of the entity

Explanation

Although the expression of true and fair view is not strictly defined in the accounting literature, we may derive the following general conclusions as to its meaning

True suggests that the financial statements are factually correct and have been prepared according to applicable reporting framework such as the IFRS and they do not contain any material misstatements that may mislead the users. Misstatements may result from material errors or omissions of transactions & balances in the financial statements

Fair implies that the financial statements present the information faithfully without any element of bias and they reflect the economic substance of transactions rather than just their legal for

Application and Importance

Preparation of true and fair financial statements has been expressly recognized as one of the responsibilities of the directors of companies in the corporate law of several countries such as in the Companies Act 2006 in the UK. Auditors must therefore consider whether directors have fulfilled their responsibility for the preparation of true and fair financial statements when providing an audit opinion.

Company law of certain jurisdictions require the auditors to expressly state in their audit report whether in their opinion the financial statements present a true and fair view of the financial performance and position of the entity.

8 - Consignment Accounts

Nature of a Consignment

When a trader sells goods directly to customers, whether they are in his home country or overseas, these are ordinary sales. However, a trader may send goods to an agent to sell them for him. These goods are said to be sent on **consignment**. The main features are:

(*a*) The trader sends the goods to the agent. The goods do not belong to the agent; his job is to sell them for the trader. The goods are owned by the trader until they are sold. The trader sending the goods is called the **consignor**. The agent is called the **consignee**.
(*b*) The agent will store the goods until they are sold by him. He will have to pay some expenses, but these will later be refunded by the trader.
(*c*) The agent will receive a commission from the trader for his work.
(*d*) The agent will collect the money from the customers to whom he sells the goods. He will pay this over to the trader after deducting his expenses and commission. The statement from the agent to the trader showing this is known as the *account sales*.

Consignment accounts are to be found mainly in overseas trade.

Consignor's (the trader's) records

For each consignment to an agent a separate consignment account is opened. Think of it as a trading and profit and loss account for each consignment. The purpose is to calculate the net profit or loss on each consignment.

Goods consigned and expenses paid by the consignor

Double entry needed:

Goods consigned (*a*)	Debit consignment account Credit goods sent on consignment account
Expenses paid (*b*)	Debit consignment account Credit cash book

Expenses of the agent (consignee) and sales receipts

When the sales have been completed the consignee will send an account sales to the consignor. This will show:

		£	£
Sales			xxx
Less	Expenses	xxx	
	Commission	xxx	
			xxx
Balance now paid			xxx

The consignor enters these details in his books. The double entry needed is:

Sales (*c*):	Debit consignee's account Credit consignment account
Expenses of consignee (*d*):	Debit consignment account Credit consignee's account
Commission of consignee (*e*):	Debit consignment account Credit consignee's account
Cash received from consignee (*f*):	Debit cash Credit consignee's account

Consignee's (the agent's) records

The only items needed in the consignee's records will be found from the account sales he sent to the consignor after the goods have been sold.

He does not enter, in his double entry, the goods received on consignment. They never belong to him. His job is to sell the goods. Of course he will keep a note of the goods, but not in his double entry account records.

The double entry needed is:

Cash from sales of consignment (*c*)	Debit cash book Credit consignor's account
Payment of consignment expenses (*d*):	Debit consignor's account Credit cash book
Commission earned (*e*):	Debit consignor's account Credit profit and loss account
Cash to settle balance shown on account sales (*f*):	Debit consignor's account Credit cash book

Bad debts and consignments

Normally, when an agent sells the goods of the consignor he will collect the sale money from the customer. If the customer does not pay his account, the money in respect of this does not have to be paid by the agent to the consignor.

To make certain he does not have such bad debts, the consignor may pay an extra commission to the agent. When this happens the money for the debt will have to be paid by the agent even though he has not collected it. This extra commission is called **del credere commission.**

Consignor's accounting period and incomplete consignments

we have looked at consignments which were all sold by the agent before the financial year end of the consignor. For instance, if a consignor's account year ends annually on 31 December, all goods consigned in 19X7 will have been sold by 31 December 19X7.

Sometimes this will not be true. We could have sent goods to the agent in September 19X7, and the final sales may be in March 19X8. When the consignor prepares his final accounts up to 31 December 19X7, there will be an incomplete consignment at the date of the balance sheet.

Accounting for incomplete consignments

The main difference between a completed consignment at the balance sheet date and an uncompleted one is that the unsold stock has to be valued and carried down to the following period. This stock will appear in the balance sheet of the consignor as a current asset.

Difference Between Joint Venture And Consignment

The main differences between joint venture and consignment are as under:

1. Nature

Joint venture: It is a temporary partnership business without a firm name.

Consignment: It is an extension of business by principal through agent.

2. Parties

Joint venture: The parties involving in joint venture are known as co-ventures.

Consignment: Consignor and consignee are involving parties in the consignment.

3. Relation

Joint venture: The relation between co-ventures is just like the partners in partnership firm.

Consignment: The relation between the consignor and consignee is 'principal and agent'.

4. Sharing Profit

Joint venture: The profits ans losses of joint venture are shared among the co-ventures in their agreed proportion.

Consignment: The profits and losses are not shared between the consignor and consignee. Consignee gets only the commission.

5. Rights

Joint venture: The co-ventures in a joint venture have equal rights.

Consignment: In consignment, the consignor enjoys principal's right whereas consignee enjoys the right of agent.

6. Exchange Of Information

Joint venture: The co-ventures exchange the required information among them regularly.

Consignment: The consignee prepares an account sale which contains a details of business activities carried on and is being sent to the consignor.

7. Ownership

Joint Venture: All the co-ventures are the owners of the joint venture.

Consignment: The consignor is the owner of the business.

8. Method of Maintaining Accounts

Joint venture: There are different methods of maintaining accounts in joint venture. As per agreement the co-ventures maintain their account.

Consignment: In consignment, there is only one method of maintaining account.

9. Continuity

Joint venture: As soon as the particular venture is completed, the joint venture is terminated.

Consignment: The continuity of business exists according to the willingness of both consignor and consignee.

9 - Joint Venture Accounts

Nature of joint ventures

Sometimes a particular business venture can best be done by two or more businesses joining together to do it instead of doing it separately. The joining together is for that one venture only, it is not joining together to make a continuing business. Such projects are known as **joint ventures**. For instance, a merchant might provide the capital, the transport to the markets and the selling skills. The farmer grows the produce. The profits or losses are then shared between them in agreed ratios. It is like a partnership, but only for this one transaction. There may be several joint ventures between the same businesses, but each one is a separate venture. The agreements for each venture may be different from each other.

Accounting for large joint ventures

For large-scale or long-term joint ventures, a separate bank account and separate set of books are kept. In such cases the calculation of profit is not difficult. It is similar to preparing a set of financial statements in an ordinary business.

Accounting for smaller joint ventures

No separate set of books or separate bank accounts are kept for smaller joint ventures. Each of the parties will record in their own books only those transactions with which they have been concerned. Example 1 gives an example of such a joint venture.

PROCESS OF COMPUTERISED ACCOUNTING

- Input → Processing → Output

FEATUERES OF COMPUTERISED ACCOUNTING

1. Fast, Powerful, Simple and Integrated
2. Complete Visibility Enhanced User Experience
3. Accuracy
4. Speed
5. Scalability
6. Power
7. Improved Business Performance
8. Quick Decision Making
9. Complete Reliability

PROCESS / STEPS IN COMPUTERISED FINANCIAL ACCOUNTING

- Planning and opening of an Accounting System
- Entering of data
- Coding
- Bank reconciliation
- Posting
- Printing of trail balance
- Finalization of Accounts

Comparison between Manual and Computerized Accounting

Accounting, by definition, is the process of identifying, recording, classifying and summarizing financial transactions to produce the financial reports for their ultimate analysis. Let us understand these activities in the context of manual and computerized accounting system.

• ***Identifying*** **:** The identification of transactions, based on application of accounting principles is, common to both manual and computerized accounting system.

• ***Recording*** **:** The recording of financial transactions, in manual accounting system is through books of original entries while the data content of such transactions is stored in a well-designed accounting database in computerised accounting system.

• ***Classification*** **:** In a manual accounting system, transactions recorded in the books of original entry are further classified by posting into ledger accounts. This results in transaction data duplicity. In computerized accounting, no such data duplication is made to cause classification of transactions. In order to produce ledger accounts, the stored transaction data is processed to appear as classified so that the same is presented in the form of a report. Different forms of the same transaction data are made available for being presented in various reports.

• ***Summarising*** **:** The transactions are summarised to produce trial balance in manual accounting system by ascertaining the balances of various accounts. As a result, preparation of ledger accounts becomes a prerequisite for preparing the trial balance. However, in computerized accounting, the originally stored transactions data are processed to churn out the list of balances of various accounts to be finally shown in the trial balance report. The generation of ledger accounts is not a necessary condition for producing trial balance in a computerised accounting system.

• ***Adjusting Entries*** **:** In a manual accounting system, these entries are made to adhere to the principle of cost matching revenue. These entries are recorded to match the expenses of the accounting period with the revenues generated by them. Some other adjusting entries may be made as part of errors and rectification. However, in computerised accounting, Journal vouchers are prepared and stored to follow the principle of cost matching revenue, but there is nothing like passing adjusting entries for errors and rectification, except for rectifying an error of principle by having recorded a wrong voucher such as using payment voucher for a receipt transaction.

• ***Financial Statements*** **:** In a manual system of accounting, the preparation of financial statements pre-supposes the availability of trial balance. However, in computerised accounting, there is no such requirement. The generation of financial statements is independent of producing the trial balance because such statements can be prepared by direct processing of originally stored transaction data.

• ***Closing the Books*** **:** After the preparation of financial reports, the accountants make preparations for the next accounting period. This is achieved by posting of closing and reversing journal entries. In computerised accounting, there is year-end processing to create and store opening balances of accounts in database. It may be observed that conceptually, the accounting process is identical regardless of the technology used.

Advantages of Computerised Accounting System

Computerised accounting offers several advantages vis-a-vis manual accounting, these are summarised as follows ;

• ***Speed*** **:** Accounting data is processed faster by using a computerised accounting system than it is achieved through manual efforts. This is because computers require far less time than human beings in performing a task.

• ***Accuracy*** **:** The possibility of error is eliminated in a computerised accounting system because the primary accounting data is entered once for all the subsequent usage and processes in preparing the accounting reports. Normally, accounting errors in a manual accounting system occur because of repeated posting of same set of original data by several times while preparing different types of accounting reports.

• ***Reliability*** **:** The computer system is well-adapted to performing repetitive operations. They are immune to tiredness, boredom or fatigue. As a result, computers are highly reliable compared to human beings. Since computerised accounting system relies heavily on computers, they are relatively more reliable than manual accounting systems.

• ***Up-to-Date Information*** **:** The accounting records, in a computerised accounting system are updated automatically as and when accounting data is entered and stored. Therefore, latest information pertaining to accounts get reflected when accounting reports are produced and printed. For example, when accounting data pertaining to a transaction regarding cash purchase of goods is entered and stored, the cash account, purchase account and also the financial statements (trading and profit and loss account) reflect the impact immediately.

• ***Real Time User Interface*** **:** Most of the automated accounting systems are inter-linked through a network of computers. This facilitates the availability of information to various users at the same time on a real time basis (that is spontaneously).

• ***Automated Document Production*** : Most of the computerised accounting systems have standardised, user defined format of accounting reports that are generated automatically. The accounting reports such as Cash book, Trial balance, Statement of accounts are obtained just by click of a mouse in a computerised accounting environment.

• ***Scalability*** **:** In a computerised accounting system, the requirement of additional manpower is confined to data entry operators for storing additional vouchers. The additional cost of processing additional transactions is almost negligible. As a result the computerised accounting systems are highly scalable.

• ***Legibility*** **:** The data displayed on computer monitor is legible. This is because the characters (alphabets, numerals, etc.) are type written using standard fonts. This helps in avoiding errors caused by untidy written figures in a manual accounting system.

• ***Efficiency*** **:** The computer based accounting systems ensure better use of resources and time. This brings about efficiency in generating decisions, useful informations and reports.

• ***Quality Reports*** **:** The inbuilt checks and untouchable features of data handling facilitate hygienic and true accounting reports that are highly objective and can be relied upon.

• ***MIS Reports*** : The computerised accounting system facilitates the real time production of management information reports, which will help management to monitor and control the business effectively. Debtors' analysis would indicate the possibilities of defaults (or bad debts) and also concentration of debt and its impact on the balance sheet. For example, if the company has a policy of restricting the credit sales by a fixed amount to a given party, the information is available on the computer system immediately when every voucher is entered through the data entry form. However, it takes time when it comes to a manual accounting system. Besides, the results may not be accurate.

• ***Storage and Retrieval*** **:** The computerised accounting system allows the users to store data in a manner that does not require a large amount of physical space. This is because the accounting data is stored in hard-disks, CD-ROMs, floppies that occupy a fraction of physical space compared to books of accounts in the form of ledger, journal and other accounting registers. Besides, the system permits fast and accurate retrieval of data and information.

• ***Motivation and Employees Interest*** : The computer system requires a specialised training of staff, which makes them feel more valued. This motivates them to develop interest in the job. However, it may also cause resistance when we switch over from a manual system to a computer system.

Limitations of Computerised Accounting System

The main limitations emerge out of the environment in which the computerised accounting system is made to operate. These limitations are as given below ;

• ***Cost of Training*** : The sophisticated computerised accounting packages generally require specialized staff personnel. As a result, a huge training costs are incurred to understand the use of hardware and software on a continuous basis because newer types of hardware and software are acquired to ensure efficient and effective use of computerised accounting systems.

• ***Staff Opposition*** : Whenever the accounting system is computerised, there is a significant degree of resistance from the existing accounting staff, partly because of the fear that they shall be made redundant and largely because of the perception that they shall be less important to the organisation.

• ***Disruption*** **:** The accounting processes suffer a significant loss of work time when an organisation switches over to the computerized accounting system. This is due to changes in the working environment that requires accounting staff to adapt to new systems and procedures.

• ***System Failure*** : The danger of the system crashing due to hardware failures and the subsequent loss of work is a serious limitation of computerised accounting system. However, providing for back-up arrangements can obviate this limitation. Software damage and failure may occur due to attacks by viruses. This is of particular relevance to accounting systems that extensively use Internet facility for their online operations. No full proof solutions are available as of now to tackle the menace of attacks on software by viruses.

• ***Inability to Check Unanticipated Errors*** : Since the computers lack capability to judge, they cannot detect unanticipated errors as human beings commit. This is because the software to detect and check errors is a set of programmes for known and anticipated errors.

• ***Breaches of Security:*** Computer related crimes are difficult to detect as any alteration of data may go unnoticed. The alteration of records in a manual accounting system is easily detected by first sight. Fraud and embezzlement are usually committed on a computerised accounting system by alteration of data or programmes. Hacking of passwords or user rights may change the accounting records. This is achieved by tapping telecommunications lines, wire-tapping or decoding of programmes. Also, the people responsible for tampering of data cannot be located which in a manual system is relatively easier to detect.

• ***Ill-effects on Health*** : The extensive use of computers systems may lead to development of various health problems: bad backs, eyestrain, muscular pains, etc. This affects adversely the working efficiency of accounting staff on one hand and increased medical expenditure on such staff on the other.

Accounting Packages

Every Computerised Accounting System is implemented to perform the accounting activity (recording and storing of accounting data) and generate reports as per the requirements of the user. From this perspective The accounting packages are classified into the following categories :

(a) Ready to use

(b) Customised

(c) Tailored

Each of these categories offers distinctive features. However, the choice of the accounting software would depend upon the suitability to the organization especially in terms of accounting needs.

Ready-to-Use

Ready-to-Use accounting software is suited to organisations running small / conventional business where the frequency or volume of accounting transactions is very low. This is because the cost of installation is generally low and number of users is limited. Ready-to-use software is relatively easier to learn and people (accountant) adaptability is very high. This also implies that level of secrecy is relatively low and the software is prone to data frauds. The training needs are simple and sometimes the vendor (supplier of software) offers the training on the software free. However, these software offer little scope of linking to other information systems.

Customized

Accounting software may be customised to meet the special requirement of the user. Standardised accounting software available in the market may not suit or fulfil the user requirements. For example, standardised accounting software may contain the sales voucher and inventory status as separate options. However, when the user requires that inventory status to be updated immediately upon entry of sales voucher and report be printed, the software needs to be customised.

Customised software is suited for large and medium businesses and can be linked to the other information systems. The cost of installation and maintenance is relatively high because the high cost is to be paid to the vendor for customization. The customisation includes modification and addition to the software contents, provision for the specified number of users and their authentication, etc. Secrecy of data and software can be better maintained in customised software. Since the need to train the software users is important, the training costs are therefore high.

Tailored

The accounting software is generally tailored in large business organisations with multi users and geographically scattered locations. These software requires specialised training to the users. The tailored software is designed to meet the specific requirements of the users and form an important part of the organizational MIS. The secrecy and authenticity checks are robust in such softwares and they offer high flexibility in terms of number of users.

Generic Considerations before Sourcing an Accounting Software

The following factors are usually taken in considerations before sourcing an accounting software:

- *Flexibility*
- *Cost of Installation and Maintenance*
- *Size of Organization*
- *Ease of Adaptation and Training needs*
- *Utilities/MIS Reports*
- *Expected Level of Secrecy (Software and Data)*
- *Exporting/Importing Data Facility*
- *Vendors Reputation and Capability*

Ways to Ensure data Integrity while transfer to computerized accounting

- *Data encryption, which locks data by cipher*
- *Data backup, which stores a copy of data in an alternate location*
- *Access controls, including assignment of read/write privileges*
- *Input validation, to prevent incorrect data entry*
- *Data validation, to certify uncorrupted transmission*

11 – Ratios Analysis

Profitability ratios

(i) Gross Profit Ratio (margin) (also known as Gross Profit percentage) = $\frac{\text{Gross Profit}}{\text{Revenue}} \times 100$

Mark up = $\frac{\text{Gross Profit}}{\text{Cost of Sales}} \times 100$

(ii) Profit Ratio (also known as Profit percentage) = $\frac{\text{Profit for the year}}{\text{Revenue}} \times 100$

can also be expressed as $\frac{\text{Profit for the year (after interest)}}{\text{Revenue}} \times 100$

(iii) Return on Capital Employed = $\frac{\text{NPBI}}{\text{Capital Employed}} \times 100$

[Capital Employed = Issued Shares + Reserves + Non-Current Liabilities]

(iv) Return on Equity = $\frac{\text{Profit for the year after Preference Dividends}}{\text{Equity}} \times 100$

[Equity = Issued Ordinary Shares + Reserves]

(v) Return on Total Assets = $\frac{\text{NPBI}}{\text{Total Assets}} \times 100$

[Total Assets = Non-Current Assets + Current Assets]

(vi) Operating expenses to Revenue Ratio = $\frac{\text{Operating Expenses}}{\text{Revenue}} \times 100$

(vii) Non-Current Asset Turnover = $\frac{\text{Net Revenue}}{\text{Total Net Book Value of Non-Current Assets}}$

Liquidity

(i) $$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

(ii) $$\text{Liquid Ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$

(Also known as 'Acid Test' or 'Quick Ratio')

(iii) $$\text{Trade Receivables Turnover} = \frac{\text{Trade Receivables}}{\text{Credit Sales}} \times 365 \text{ days}$$

(Also known as Average Collection Period)

(iv) $$\text{Trade Payables Turnover} = \frac{\text{Trade Payables}}{\text{Credit Purchases}} \times 365 \text{ days}$$

(Also known as Average Payment Period)

(v) $$\text{Inventory Turnover} = \frac{\text{Average Inventory}}{\text{Cost of Goods Sold}} \times 365 \text{ days}$$

Or $$\text{Rate of Inventory Turnover} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$$ (answer given in times)

Cambridge International A Level only

(vi) Working Capital Cycle (in days) = Trade Receivables Turnover (in days) + Inventory Turnover (in days) – Trade Payables Turnover (in days)

Or

Working Capital Cycle (in days) = Average Collection Period + Inventory Turnover (in days) – Average Payment Period

(vii) $$\frac{\text{Net Working Assets}}{\text{Sales/Revenue}} \times 100$$

Net Working Assets = Inventories plus Trade Receivables less Trade Payables

(viii) $$\text{Income Gearing} = \frac{\text{Interest Expense}}{\text{Profit Before Interest and Tax (PBIT)}} \times 100$$

(ix) $$\text{Gearing Ratio} = \frac{\text{Fixed Cost Capital}}{\text{Total Capital}}$$

Which is: $$\frac{\text{Non-Current Liabilities + Preference Share Capital}}{\text{Issued Ordinary Share Capital + All Reserves + Non-Current Liabilities + Preference Shares}}$$

Investment ratios (stock exchange ratios) Cambridge International A Level only

(i) $$\text{Earnings per share} = \frac{\text{Net Profit – Preference Share Dividend}}{\text{No. of issued Ordinary Shares}}$$

(ii) $$\text{Price Earnings Ratio} = \frac{\text{Market Price per share}}{\text{Earnings per share}}$$

(iii) $$\text{Dividend yield} = \frac{\text{Dividend paid and proposed}}{\text{Market Price of share}}$$

(iv) $$\text{Dividend cover} = \frac{\text{Profit available to pay ordinary dividend}}{\text{Ordinary dividend paid}}$$

(v) $$\text{Dividend per share} = \frac{\text{Ordinary dividend paid}}{\text{Number of issued ordinary shares}}$$

- **Calculate ratios using year-end balances where appropriate, unless the question specifies the use of average figures.**
- **Calculate ratios to the number of decimal places required by the question.**

PROFITABILITY

GROSS PROFIT MARGIN

While the gross profit is a dollar amount, the gross profit margin is expressed as a percentage of net sales. The Gross Profit Margin illustrates the profit a company makes after paying off its Cost of Goods sold. The Gross Profit Margin shows how efficient the management is in using its labour and raw materials in the process of production (In case of a trader, how efficient the management is in purchasing the good). There are two key ways for you to improve your gross profit margin. First, you can increase your process. Second, you can decrease the costs of the goods. Once you calculate the gross profit margin of a firm, compare it with industry standards or with the ratio of last year. For example, it does not make sense to compare the profit margin of a software company (typically 90%) with that of an airline company (5%).

$$\frac{\text{Gross Profit}}{\text{Revenue}} \times 100$$

NET PROFIT MARGIN

Net profit margin tells you exactly how the management and operations of a business are performing. Net Profit Margin compares the net profit of a firm with total sales achieved. The main difference between GP Margin and NP Margin are the overhead expenses (Expenses and loss). In some businesses Gross Margin is very high but Net Margin is low due to high expenses, e.g. Software Company will have high Research expenses.

$$\frac{\text{Profit for the year (after interest)}}{\text{Revenue}} \times 100$$

Return on Capital Employed (ROCE)

This is the key profitability ratio since it calculates return on amount invested in the business. If this ratio is high, this means more profitability (In exam if ROCE is higher for any firm it is better than the other firm irrespective of GP and NP Margin). This return is important as it can be compared to other businesses and potential investment or even the Interest rate offered by the bank. If ROCE is lower than the bank interest then the owner should shoot himself. This ratio can go up if profits increase and capital employed remains the same. Also if Capital employed decreases, this ratio might go up.

$$\frac{\text{NPBI}}{\text{Capital Employed}} \times 100$$

[*Capital Employed = Issued Shares + Reserves + Non-Current Liabilities*]

Return on Total Assets

This shows how much profit is generated on total assets (Fixed and Current). The ratio is considered and indicator of how effectively a company is using its assets to generate profits.

Operating Profit x 100
Total Assets

Return on Shareholders' Funds / Return on Net Assets / Return on Owners capital

Since all the capital employed is not provided by the shareholders, this specifically calculates the return to the shareholders (It's almost the same thing as ROCE)

Net Profit After Tax x 100
Share holder Funds / Equity

LIQUIDITY

As we know a firm has to have different liquidity. In other words they have to be able to meet their day to day payments. It is no good having your money tied up or invested so that you haven't enough money to meet your bills! Current assets and liabilities are an important part of this liquidity and so to measure the firms liquidity situation we can work out a ratio. The current ratio is worked out by dividing the current assets by the current liabilities.

CURRENT RATIO

The figure should always be above 1 or the form does not have enough assets to meet its liabilities and is therefore technically insolvent. However, a figure close to 1 would be a little close for a firm as they would only just be able to meet their liabilities and so a figure of between 1.5 and 2 is generally considered being desirable. A figure of 2 means that they can meet their liabilities twice over and so is safe for them. If the figure is any bigger than this then the firm may be tying too much of their money in a form that is not earning them anything. If the current ratio is bigger than 2 they should therefore perhaps consider investing some for a longer period to earn them more.

$$\frac{\text{Current Assets}}{\text{Current Liabilities}}$$

However, the current assets also include the firm's stock. If the firm has a high level of stock, it may mean one of the two things, 1. Sales are booming and they're producing a lot to keep up with demand. 2. They can't sell all they're producing and it's piling up in the warehouse!

If the second of these is true then stock may not be a very useful current asset, and even if they could sell it isn't as liquid as cash in the bank, and so a better measure of liquidity is the ACID TEST (or QUICK) RATIO. This excludes stock from the current assets, but is otherwise the same as the current ratio.

ACID TEST RATIO

Ideally this figure should also be above 1 for the firm to be comfortable. That would mean that they can meet all their liabilities without having to pay any of their stock. This would make potential investors feel more comfortable about their liquidity. If the figure is far below 1, they may begin to get worried about their firm's ability to meet its debts.

$$\frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$

Rate of Stock Turnover

It shows the number of times, on average, that the business will sell its stock in a given period of time. It basically gives an indication of how well the stock has been managed. A high ratio is desirable because the quicker the stock is turned over, more profit can be generated. A low ratio indicates that stocks are kept for a longer period of time (which is not good).

$$\frac{\text{Cost of Sales}}{\text{Average Inventory}} \text{ (answer given in times)}$$

Inventory Holding Period (Days): This is Rate of stock turnover in days. Lower the better.

$$\frac{\text{Average Inventory}}{\text{Cost of Sales}} \times 365 \text{ days}$$

Debtors Collection Period (Days): Shows how long it takes on average to recover the money from debtors. Lower the better.

$$\frac{\text{Trade Receivables}}{\text{Credit Sales}} \times 365 \text{ days}$$

Creditor Payment Period (Days) Shows how long it takes on average to payback the creditors. Higher the better.

$$\frac{\text{Trade Payables}}{\text{Credit Purchases}} \times 365 \text{ days}$$

Working Capital Cycle: (Only for MCQ). (Lower the better)

Stock Days + Debtor Days – Creditor Days

Utilization Ratios

Total Asset utilization (Total Asset Turnover)
Shows how much sales are being generated on Total Assets. Higher ratio indicates better utilization of Total Assets.

Net Sales (times)
Total Assets

Fixed Asset Utilization (Fixed Asset Turnover)
Shows how much sales are being generated on Fixed Assets. Higher ratio indicates better utilization of Fixed Assets.

$$\frac{\text{Net Revenue}}{\text{Total Net Book Value of Non-Current Assets}}$$

Working Capital Utilization (Working Capital Turnover)
Shows how much sales are being generated on Working Capital. Higher ratio indicates better utilization of Working Capital.

Net Sales (times)
Working Capital

INVESTMENT RATIOS

All of these ratios are calculated from the point of view of ordinary shareholders

What is Earning? (Profit attributable to ordinary shareholders) This is Profit After Interest , tax and preference share dividend. Basically whatever goes to ordinary shareholders.

1. **Earning Per Share**

How much profit after tax and preference share dividends is attributable to each ordinary share. Simply shows how much the company has earned for one ordinary share, since all the earnings belong to ordinary shareholders. Investors regard EPS as a measure of success of the company. Obviously the higher this number the more money is made by the company. This ratio allows us to compare different companies power to make money. The higher the EPS (with all else equal), the higher each share should be worth. When we do our analysis we should look for a positive trend of EPS in order to make sure the company is finding more ways to make more money. Otherwise the company is not growing. The main problem with EPS is since it is expressed on per share basis it becomes difficult to compare companies with different amount of number of shares. An important aspect of EPS that's often ignored is the capital that is required to generate the earnings in the calculation. Two companies could generate the same EPS number, but one could do so with less equity (investment) - that company would be more efficient at using its capital to generate income and, all other things being equal, would be a "better" company.

$$\frac{\text{Net Profit} - \text{Preference Share Dividend}}{\text{Number of issued Ordinary Shares}}$$

2. Dividend Per Share

This is calculated using dividends paid . Dividends are a form of profit distribution to the shareholder. Having a growing dividend per share can be a sign that the company's management believes that the growth can be sustained. A high Dividend per share also means the company has enough cash available to pay for dividends.

$$\frac{\text{Ordinary dividend paid}}{\text{Number of issued Ordinary Shares}}$$

3. Dividend Cover

This shows the relation of earning to dividends . How many times the dividend for the year can be covered(paid) from this year's earnings. A low cover indicates future dividends are at risk if company's profitability falls in the future(as they are not retaining enough profits and are distributing the majority) .A high dividend cover is an indication of safety of dividends in the future ,as the company has retained enough profits. The long term investors look for high dividend cover companies, because they believe if the company is retaining more profits then they have more growth opportunities. If the ratio is under 1, the company is using its profit from a previous

year to pay this year's dividend. This ratio also shows the dividend policy of the company , a high cover indicates a very conservative approach where majority of the profits are invested back in the business.

$$\frac{\text{Profit available to pay ordinary dividend}}{\text{Ordinary dividend paid}}$$

4. Dividend Yield :

This shows the dividends as a % of market price. This is used to calculate cash return on investment. We take investment as market price because that is the opportunity cost of holding a share. High dividend yield makes the share more attractive.

$$\frac{\text{Dividend paid and proposed}}{\text{Market Price of share}}$$

5. Interest Cover

Shows how many times the operating profit can cover for the interest expense. A high ratio is desirable to this would mean company has more ability to handle its interest charges and to more amount will be available to pay for dividends. A low cover may turn a small profit into a loss due to the interest expense. Low cover also makes it difficult for the company to raise more debts and loans as the financial intuitions demand a minimum interest cover level.

$$\frac{\text{Profit before interest and tax (PBIT)}}{\text{Interest expense}} \text{ (times)}$$

6. Price to Earning Ratio

This relates market price to the Earning per share. High Ratio shows the investor has more confidence in this company's future to maintain its current level of earning , that is why they are willing to pay more . The ratio should be compared with the average ratio of the similar companies. Some believe that the high ratio may mean that share price is overvalued and will fall in future. But a growing PE ratio shows increase in the confidence level of investors.

$$\frac{\text{Market Price per share}}{\text{Earnings per share}}$$

7. Gearing Ratio

This shows how much of the total capital employed (total amount invested in the business) is coming from external sources (not by ordinary shareholders) . The amount of financing provided by long term liabilities and preference shareholders.

This is measure of risk because if a high proportion is coming from these sources than majority of the profits will go as interest payments and preference dividends (especially In the low profitability years), infact the interest expense has to be paid even in case of losses. If a company is already highly geared then its difficult to raise more loans (obviously). Gearing of more than 50% is considered high and risky. Remember high gearing is not necessarily bad (but it's risky) , it depends on risk preference of the investor. A high geared company tends to grow faster because they rely on debt and external financing, it can give amazing returns in good years but in a bad year it can also go bankrupt.

$$\frac{\text{Fixed Cost Capital}}{\text{Total Capital}}$$

which is:

$$\frac{\text{Non-Current Liabilities + Preference Share Capital}}{\text{Issued Ordinary Share Capital + All Reserves + Non-Current Liabilities + Preference Shares}}$$

8. Income Gearing

This shows how much% of operating profit has to go for interest Its same as interest cover but calculated as a %.

$$\frac{\text{Interest Expense}}{\text{Profit Before Interest and Tax (PBIT)}} \times 100$$

9 . Net Asset Value Per Share (Book value Per Share)

This is the value of one ordinary share according to the balance sheet. Remember all reserves belong to ordinary shareholders. This indicates the amount of cash each share will receive if the company is liquated at that date. Theoretically the book value of one share should also be the market value , but market value tends to be higher because - Balance sheet does not include internally generated intangible assets such as human capital and goodwill. - Balance Sheet is historical and cant take into account future gains - Speculations in stock market effects the share price.

$$\frac{\text{Ordinary Share Capital + All Reserves}}{\text{No of Ordinary Shares}}$$

10.RETURN ON EQUITY : Shows how much return as a percentage of capital is earned by the company

$$\frac{\text{Profit After Interest and Tax}}{\text{Total Ordinary Shareholder funds}} \times 100$$

Advantages of Ratios

1. Shows a trend
2. Helps to compare a single firm over a two years (time series)
3. Helps to compare to similar firms over a particular year.
4. Helps in making decisions

Disadvantages (Limitations):

1. A ratio on its own is isolated (We need to compare it with some figures)
2. Depends upon the reliability of the information from which ratios are calculated.
3. Different industries will have different ideal ratios.
4. Different companies have different accounting policies. E.g. Method of depreciation used.
5. Ratios do not take inflation into account.
6. Ratios can ever simplify a situation so can be misleading.
7. Outside influences can affect ratios e.g. world economy, trade cycles.
8. After calculating ratios we still have to analyze them in order to derive a conclusion.

12 - ABC Costing

An alternative to absorption costing is activity based costing (ABC).

ABC involves the identification of the factors (cost drivers) which cause the costs of an organisation's major activities. Support overheads are charged to products on the basis of their usage of an activity.

For costs that vary with production level in the short term, the cost driver will be volume related (labour or machine hours).

Overheads that vary with some other activity (and not volume of production) should be traced to products using transaction-based cost drivers such as production runs or number of orders received.

Definition

Activity based costing (ABC) involves the identification of the factors which cause the costs of an organization's major activities. Support overheads are charged to products on the basis of their usage of the factor causing the overheads.

The major ideas behind activity based costing are as follows.

(a) Activities cause costs. Activities include ordering, materials handling, machining, assembly, production scheduling and despatching.

(b) Producing products creates demand for the activities.

(c) Costs are assigned to a product on the basis of the product's consumption of the activities.

Steps for ABC system

An ABC system operates as follows.

Step 1 Identify an organisation's major activities.

Step 2 Identify the factors which determine the size of the costs of an activity/cause the costs of an activity. These are known as cost drivers.

A **cost driver** is a factor which causes a change in the cost of an activity.

Examples of Cost Drivers

Costs	Possible cost driver
Ordering costs	Number of orders
Materials handling costs	Number of production runs
Production scheduling costs	Number of production runs
Despatching costs	Number of despatches

Step 3 Collect the costs associated with each cost driver into what are known as cost pools.

Step 4 Charge costs to products on the basis of their usage of the activity. A product's usage of an activity is measured by the number of the activity's cost driver it generates.

ABC versus traditional costing methods

Both traditional absorption costing and ABC systems adopt the two stage allocation process.

Allocation of overheads
ABC establishes separate cost pools for support activities such as despatching. As the costs of these activities are assigned directly to products through cost driver rates, reapportionment of service department costs is avoided.

Absorption of overheads
The principal difference between the two systems is the way in which overheads are absorbed into products.

(a) Absorption costing most commonly uses two **absorption bases** (labour hours and/or machine hours) to charge overheads to products.

(b) ABC uses many **cost drivers** as absorption bases (eg number of orders or despatches). Absorption rates under ABC should therefore be more closely linked to the causes of overhead costs.

Cost drivers

The principal idea of ABC is to focus attention on **what causes costs to increase,** ie the cost drivers.

(a) The **costs that vary with production volume**, such as power costs, should be traced to products using production **volume-related cost drivers**, such as direct labour hours or direct machine hours.

Overheads which do not vary with output but **with some other activity** should be traced to products using **transaction-based cost drivers**, such as number of production runs and number of orders received.

(b) Traditional costing systems allow overheads to be related to products in rather more arbitrary ways producing, it is claimed, less accurate product costs.

Merits of ABC Costing

(a) The **complexity of manufacturing has increased**, with wider product ranges, shorter product life cycles and more complex production processes. **ABC recognises this complexity with its multiple cost drivers.**

(b) In a more competitive environment, companies must be able to assess product profitability realistically. **ABC facilitates a good understanding of what drives overhead costs**.

(c) In modern manufacturing systems, overhead functions include a lot of non-factory-floor activities such as product design, quality control, production planning and customer services. **ABC is concerned with all overhead costs** and so it takes management accounting beyond its 'traditional' factory floor boundaries.

Criticisms of ABC

It has been suggested by critics that **activity based costing has some serious flaws**.

(a) Some measure of (arbitrary) cost apportionment may still be required at the cost pooling stage for items like rent, rates and building depreciation.

(b) Can a single cost driver explain the cost behaviour of all items in its associated pool?

(c) Unless costs are caused by an activity that is measurable in quantitative terms and which can be related to production output, cost drivers will not be usable. What drives the cost of the annual external audit, for example?

(d) ABC is sometimes introduced because it is fashionable, not because it will be used by management to provide meaningful product costs or extra information. If management is not going to use ABC information, an absorption costing system may be simpler to operate.

(e) The cost of implementing and maintaining an ABC system can exceed the benefits of improved accuracy.

(f) Implementing ABC is often problematic.

The implications of using ABC

Pricing – pricing decisions will be improved because the price will be based on more accurate cost data.

Decision making – this should also be improved. For example, research, production and sales effort can be directed towards the most profitable products.

Performance management – should be improved. ABC can be used as the basis of budgeting and forward planning. The more realistic overhead should result in more accurate budgets and should improve the process of performance management. In addition, an improved understanding of what drives the overhead costs should result in steps being taken to reduce the overhead costs and hence an improvement in performance.

Sales strategy – this should be more soundly based. For example, target customers with products that appeared unprofitable under absorption costing but are actually profitable, and vice versa.

13 - Standard Costing and Variance Analysis

A **standard cost** is an estimated unit cost built up of standards for each cost element (standard resource price and standard resource usage).

Standard costing is principally used to value inventories and cost production and to act as a control device.

Sample standard cost of product 12345 is set out below on a **standard cost card.**

STANDARD COST CARD

Product: the Splodget, No 12345

	Cost	*Requirement*	$	$
Direct materials				
A	$2.00 per kg	6 kgs	12.00	
B	$3.00 per kg	2 kgs	6.00	
C	$4.00 per litre	1 litre	4.00	
Others			2.00	
				24.00
Direct labour				
Grade I	$4.00 per hour	3 hrs	12.00	
Grade II	$5.40 per hour	5 hrs	27.00	
				39.00
Variable production overheads	$1.00 per hour	8 hrs	8.00	
Fixed production overheads	$3.00 per hour	8 hrs	24.00	
Standard full cost of production			95.00	

It is determined by management's estimates of the following.

- The expected prices of materials, labour and expenses
- Efficiency levels in the use of materials and labour
- Budgeted overhead costs and budgeted volumes of activity

Standard costing has two principal **uses**.

- **To value inventories and cost production** for cost accounting purposes. It is an alternative method of valuation to methods like FIFO and LIFO
- **To act as a control device** by establishing standards (expected costs) and comparing actual costs with the expected costs, thus highlighting areas of the organisation which may be out of control.

It can also be used in the following circumstances.

(a) To assist in setting **budgets** and **evaluating managerial performance**.

(b) To enable the principle of **'management by exception'** to be practised. A standard cost, when established, is an average expected unit cost. Because it is only an average, actual results will vary to some extent above and below the average. Only significant differences between actual and standard should be reported.

(c) To provide a prediction of future costs to be used in **decision-making** situations.

(d) To **motivate** staff and management by the provision of challenging targets.

(e) To provide guidance on possible ways of **improving efficiency**.

Standard costing as a control technique

Standard costing involves the establishment of predetermined estimates of the costs of products or services, the collection of actual costs and the comparison of the actual costs with the predetermined estimates. The predetermined costs are known as standard costs and the difference between standard and actual cost is known as a **variance**. The process by which the total difference between standard and actual results is analysed in known as **variance analysis**.

Where standard costing should be used

Standard costing is most suited to mass production and repetitive assembly work.

Types of standards

- An **ideal standard** is a standard which can be attained under perfect operating conditions: no wastage, noinefficiencies, no idle time, no breakdowns
- An **attainable standard** is a standard which can be attained if production is carried out efficiently, machines are properly operated and/or materials are properly used. Some allowance is made for wastage and inefficiencies
- A **current standard** is standard based on current working conditions (current wastage, current inefficiencies)
- A **basic standard** is a long-term standard which remains unchanged over the years and is used to show Trends

The **different types of standard have a number of advantages and disadvantages.**

(a) **Ideal standards** can be seen as **long-term targets** but are not very useful for day-to-day control purposes.

(b) **Ideal standards cannot be achieved**. If such standards are used for budgeting, an allowance will have to be included to make the budget realistic and attainable.

(c) **Attainable standards** can be used for **product costing**, cost control, inventory valuation, estimating and as a basis for budgeting.

(d) **Current standards** or attainable standards provide the **best basis for budgeting**, because they represent an achievable level of productivity.

(e) Current standards **do not attempt to improve** on current levels of efficiency.

(f) **Current standards** are useful during **periods when inflation is high**. They can be set on a month by month basis.

(g) **Basic standards** are used to show **changes in efficiency or performance** over a long period of time. They are perhaps the least useful and least common type of standard in use.

The impact on employee behaviour of the type of standard set

Ideal: Some say that they provide employees with an **incentive to be more efficient** even though it is highly unlikely that the standard will be achieved. Others argue that they are likely to have an unfavourable effect on employee motivation because the differences between standards and actual results will always be adverse. The **employees may feel that the goals are unattainable** and so **they will not work so hard**.

Attainable: Might be an **incentive to work harder** as they provide a **realistic but challenging target of efficiency**.

Current: Will not motivate employees to do anything more than they are currently doing.

Basic: May have an **unfavourable impact** on the motivation of employees. Over time they will discover that they are easily able to achieve the standards. They may become bored and lose interest in what they are doing if they have nothing to aim for.

Budgets and standards compared

Budgets and standards are very similar and interrelated, but there are important differences between them

Budgets	Standards
Gives planned total aggregate costs for a function or cost centre	Shows the unit resource usage for a single task, for example the standard labour hours for a single unit of production
Can be prepared for all functions, even where output cannot be measured	Limited to situations where repetitive actions are performed and output can be measured
Expressed in money terms	Need not be expressed in money terms. For example a standard rate of output does not need a financial value put on it

A **variance** is the difference between an actual result and an expected result.

Variance analysis is the process by which the *total* difference between standard and actual results is analysed.

The reasons for variances

Variance	Favourable	Adverse
Material price	Unforeseen discounts received Greater care in purchasing Change in material standard	Price increase Careless purchasing Change in material standard
Material usage	Material used of higher quality than standard More effective use made of material Errors in allocating material to jobs	Defective material Excessive waste Theft Stricter quality control Errors in allocating material to jobs
Labour rate	Use of workers at a rate of pay lower than standard	Wage rate increase
Labour efficiency	Output produced more quickly than expected, because of work motivation, better quality of equipment or materials, better learning rate Errors in allocating time to jobs	Lost time in excess of standard allowed Output lower than standard set because of lack of training, sub-standard material etc Errors in allocating time to jobs
Overhead Expenditure	Savings in costs incurred More economical use of services	Increase in cost of services Excessive use of services Change in type of services used
Overhead Volume	Production or level of activity greater than budgeted.	Production or level of activity less than budgeted
Fixed overhead capacity	Production or level of activity greater than budgeted	Production or level of activity less than budgeted
Selling price	Unplanned price increase Less competition Competitor shuts down business	Unplanned price reduction Intense competition New competitor in the market
Sales volume	Additional demand	Unexpected fall in demand Production difficulties

Investigating variances

Factors which should be considered in assessing the significance of the variance.

- Materiality
- Controllability
- The type of standard being used
- Variance trend
- Interdependence between variances
- Costs of investigation

Interdependence between variances

Individual variances should not be looked at in isolation. One variance might be inter-related with another, and much of it might have occurred only because the other variance occurred too. **When two variances are interdependent (interrelated) one will usually be adverse and the other one favourable.** Here are some examples.

Interrelated variances	Explanation
Materials price and Usage	If **cheaper materials** are purchased for a job in order to obtain a favourable price variance, materials wastage might be **higher** and an **adverse usage variance** may occur. If the cheaper materials are more difficult to handle, there might be an **adverse labour efficiency variance** too. If more expensive materials are purchased, the **price variance** will be **adverse** but the **usage variance** might be **favourable** if the material is easier to use or of a higher quality.
Labour rate and Efficiency	If employees are paid higher rates for experience and skill, using a highly skilled team might lead to an **adverse rate variance** and a **favourable efficiency variance** (experienced staff are less likely to waste material, for example). In contrast, a favourable rate variance might indicate a larger-than-expected proportion of inexperienced workers, which could result in an **adverse labour efficiency variance**, and perhaps **poor materials handling and high rates of rejects** too (and hence an adverse materials usage variance).
Selling price and sales volume	A reduction in the selling price might stimulate bigger sales demand, so that an **adverse selling price variance** might be counterbalanced by a **favourable sales volume variance**. Similarly, a price rise would give a **favourable price variance**, but possibly cause an **adverse sales volume variance**.

Variance Formulae

Material	**Material Price Variance** = (SP/Kg – AP/Kg) x Actual Qty Purchased / Used **Material Usage Variance** = (SQA for AP – A Qty Used) x SP / Kg **Material Total Variance** = (SCA for AP – A Cost Incurred)
Labour	**Labour Rate Variance** = (SR / Hr – AR / Hr) x Actual Paid Hrs **Labour Efficiency Variance** = (SHA for AP – Actual Operating Hrs) x SR / Hr **Labour Total Variance** = (SCA for AP – A Cost Incurred)

Fixed Overhead	**Fixed Prod OH Expenditure Variance** = (Budg OH for BP – Actual OH for AP) **Fixed Prod OH Volume Variance** = (Budg Volume – Actual Volume) x OAR / Unit **Fixed Prod OH Volume Efficiency** = (SHA for AP – A Operating Hrs) x OAR / Hr **Fixed Prod OH Volume Capacity** = (Budg Hrs for BP – A Hrs for AP) x OAR / Hr **Fixed Prod OH Total Variance (Over / Under Absorption)** = (Actual OH Incurred – Amount Absorbed) (OFUA)
Sales	**Sales Price Variance** = (Standard Selling Price / Unit – Actual Selling Price / Unit) x Actual Units Sold **Sales Volume Variance** = (Budgeted Volume – Actual Volume) x Standard Selling Price / Unit

An **operating statement** is a regular report for management which compares actual costs and revenues with budgeted figures and shows variances.

Operating Statement Format

Budgeted Profit (Budg Units x Std. Profit / Unit)			**xxxxxx**
Sales Volume Profit Variance			xx/(xx)
Sales Price Variance			xx/(xx)
Cost Variances	**FAV**	**ADV**	
Material Price Variance	xx		
Material Usage Variance		xx	
Labor Rate Variance	xx		
Labor Efficiency Variance		xx	
Fixed Production OH Expenditure	xx		
Fixed Production OH Volume Efficiency		xx	
Fixed Production OH Volume Capacity	xx	xx	
Total Cost Variances	xx	xx	xx/(xx)
Actual Profit before Non-Production Costs			**xxxxx**
Less Non Production OH			(xxx)
Actual Net Profit			**xxxx**

14 - Budgeting and Control

A budget is a **quantified plan of action** for a forthcoming accounting period.

The planning and control cycle

The planning and control cycle has seven steps.

Step 1. Identify **objectives**

Step 2. Identify potential **strategies**

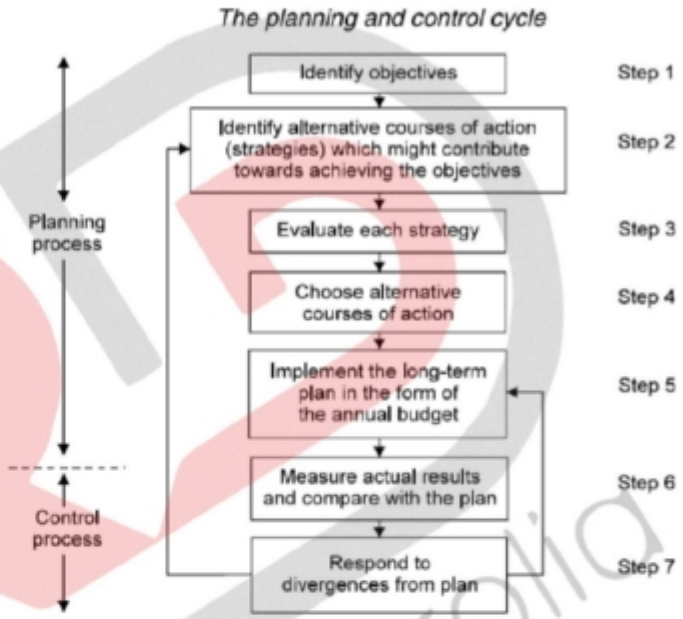
Step 3. Evaluate strategies

Step 4. Choose alternative courses of action

Step 5. Implement the long-term plan

Step 6. Measure actual results and compare with the plan

Step 7. Respond to divergences from the plan



Objectives of budgetary systems

- Ensure the achievement of the organisation's objectives
- Compel planning
- Communicate ideas and plans
- Coordinate activities
- Provide a framework for responsibility accounting
- Establish a system of control
- Motivate employees to improve their performance

Behavioural implications of budgeting

(a) The **managers who set the budget** or standards are **often not the managers** who are then made **responsible for achieving budget targets.**

(b) The **goals of the organisation as a whole**, as expressed in a budget, **may not coincide with the personal aspirations of individual managers**.

(c) **Control is applied at different stages by different people**. A supervisor might get weekly control reports, and act on them; his superior might get monthly control reports, and decide to take different control action. Different managers can get in each others' way, and resent the interference from others.

Imposed style of budgeting (top-down budgeting)

In this approach to budgeting, **top management prepare a budget with little or no input from operating personnel** which is then imposed upon the employees who have to work to the budgeted figures.

The times when imposed budgets are effective are as follows.

- In newly-formed organisations
- In very small businesses
- During periods of economic hardship
- When operational managers lack budgeting skills
- When the organisation's different units require precise coordination

Advantages

- **Strategic plans** are likely to be incorporated into planned activities
- They **enhance** the **coordination** between the plans and objectives of divisions
- They use **senior management's awareness** of total resource availability
- They **decrease the input from inexperienced or uninformed lower-level employees**
- They **decrease the period of time taken** to draw up the budgets

Disadvantages

- **Dissatisfaction**, **defensiveness** and **low morale** amongst employees
- The **feeling of team spirit** may disappear
- The **acceptance of organisational goals** and **objectives** could be limited
- The feeling of the budget as a **punitive device** could arise
- **Unachievable budgets** for overseas divisions could result if consideration is not given to local operating and political environments
- **Lower-level management initiative** may be **stifled**

Participative style of budgeting (bottom-up budgeting)

In this approach to budgeting, **budgets are developed by lower-level managers who then submit the budgets to their superiors**. The budgets are based on the lower-level managers' perceptions of what is achievable and the associated necessary resources.

Participative budgets are effective in the following circumstances.

- In **well-established organisations**
- In **very large businesses**
- During periods of **economic affluence**
- When operational managers have **strong budgeting skills**
- When the organisation's different units act **autonomously**

Advantages

- They are based on **information from employees** most familiar with the department
- **Knowledge spread** among several levels of management is pulled **together**
- **Morale** and **motivation** is improved
- They **increase operational managers' commitment** to organisational objectives
- In general they are **more realistic**
- **Co-ordination** between units is **improved**
- **Specific resource requirements** are **included**

- **Senior managers' overview** is mixed with operational level details

Disadvantages

- They **consume more time**
- **Changes implemented** by senior management may **cause dissatisfaction**
- Budgets may be **unachievable** if managers' are not qualified to participate
- They may cause managers to introduce **budgetary slack**
- They can support **'empire building'** by subordinates
- An **earlier start** to the budgeting process could be required

Incremental budgeting

The traditional approach to budgeting, known as **incremental budgeting**, bases the budget on the current year's results plus an extra amount for estimated growth or inflation next year. It encourages slack and wasteful spending to creep into budgets.

Incremental budgeting is so called because it is concerned mainly with the increments in costs and revenues which will occur in the coming period.

A **fixed budget** is a budget which is designed to remain unchanged regardless of the volume of output or sales achieved.

Flexible budgets

Comparison of a fixed budget with the actual results for a different level of activity is of little use for control purposes. **Flexible budgets** should be used to show what cost and revenues should have been for the actual level of activity.

A **flexible budget** is a budget which, by recognising different cost behaviour patterns, is designed to change as volume of activity changes.

Zero based budgetary systems

The principle behind **zero based budgeting (ZBB)** is that the budget for each cost centre should be made from 'scratch' or zero. Every item of expenditure must be justified in its entirety in order to be included in the next year's budget.

Zero based budgeting involves preparing a budget for each cost centre from a zero base. Every item of expenditure has then to be justified in its entirety in order to be included in the next year's budget.

Limiting factor in Budgeting

The factor that **limits the scale of operations**, this is usually sales demand, but it may be production capacity where demand is high. Budgeting cannot proceed until the budget for the limiting factor has been prepared, since this affects all the other budgets.

Budget Formats

Finished Goods Production / Purchase Budget (Units)

Budgeted Sales Qty	XXX
Add: Required Closing Inventory	XXX
Add: Losses (If any)	XXX
Less: Opening Inventory	(XXX)
FG Production / Purchase Qty Budget	**XXX**
Multiply by	X
Production / Purchase cost per unit	$X
FG Production / Purchase cost budget ($)	**$XXXX**

Raw Material Purchase Qty Budget (Kgs / Litres etc)

Material Usage Budget / Production requirements (Production units x Mat required / unit)	XXX
Add: Required Closing Inventory	XXX
Add: Expected Loss (If any)	XXX
Less: Opening Inventory	(XXX)
Raw Material Purchase Qty Budget	**XXX**
Multiply by	X
Raw Material Cost per kg / Litre	$X
Raw Material Purchase Cost Budget ($)	**$XXXX**

Cash Budget

Cash budget / forecast is one of the most important budgets that an organization prepares because liquidity is more important for survival than profitability.

ARD Ltd

Cash Budget for the year 2016

	JAN	FEB	MAR
Receipts / Inflows			
Cash Sales	-	XX	XX
Collection from Debtors	XX	XX	XX
Sale of NCA	XX	-	XX
Issue of Share / Loans	XX	XX	-
Other Receipts	XX	-	XX
Total Receipts	**XX**	**XX**	**XX**
Payments / Outflows			
Cash Purchase	XX	-	XX
Payment to creditors	XX	XX	XX
Cash Drawing	-	XX	XX
Purchase of NCA	XX	XX	-
Repayment of Loan / Debentures	XX	-	XX
Other payments	-	XX	XX
Total Payments	**XX**	**XX**	**XX**
Net Cash flows / Surplus (Deficit) (Total Receipt – Total Payments)	**XX**	**(XX)**	**XX**
Add: Opening Cash Balance	**XX**	**XX**	**XX**
Closing Cash Balance	**XX**	**XX**	**XX**

Uses of Cash Budgets

- It helps to identify short and long term cash needs so that appropriate action can be taken
- It determines future ability of the business to pay trade payables and other debts early to avail cash discounts
- It helps to identify how much credit can be extended to customers before falling into liquidity problems
- It reveals any expected surplus of cash which may be invested or loaned for a short time period
- It ensures sufficient cash is available required to carry out business operations

Action plans for Cash Shortage or Surplus

Cash Position	Appropriate management action
Short term surplus	➢ Pay trade payables early to avail discounts ➢ Bulk purchase to avail trade discounts ➢ Attempt to increase sales by extending credit to trade receivables ➢ Make short-term investments
Short term deficits	➢ Re-negotiate overdraft limit ➢ Give incentives to customers to buy in cash ➢ Offer cash discounts to debtors for early payments ➢ Negotiate longer credit from suppliers (if possible)
Long term surplus	➢ Make investments on long term basis ➢ Expand level of operations ➢ Replace or improve non-current assets ➢ Redemption of preference share or debentures
Long term deficit	➢ Issue of ordinary / preference shares / additional investment by owner ➢ Arrange long term bank loan ➢ Issue of debentures ➢ Sale of surplus non-current assets ➢ Consider shutdown or divestment opportunities

15 - Investment Appraisal

Investment can be divided into **capital expenditure** and **revenue expenditure** and can be made in **non-current assets** or **working capital**.

Capital expenditure is expenditure which results in the **acquisition** of non-current assets or an **improvement** in their earning capacity. It is not charged as an expense in the income statement; the expenditure appears as a non-current asset in the statement of financial position.

Revenue expenditure is charged to the income statement and is expenditure which is incurred:

(a) For the purpose of the trade of the business - this includes expenditure classified as selling and distribution expenses, administration expenses and finance charges

(b) To maintain the existing earning capacity of non-current assets

Investment can be made in **non-current assets** or **working capital**.

(a) **Investment in** non-current assets involves a significant elapse of time between commitment of funds and recoupment of the investment. Money is paid out to acquire resources which are going to be used on a continuing basis within the organisation.

(b) **Investment in working capital** arises from the need to pay out money for resources (such as raw materials) before it can be recovered from sales of the finished product or service. The funds are therefore only committed for a short period of time.

Capital budgeting is the process of identifying, analysing and selecting investment projects whose returns are expected to extend beyond one year.

Relevant v irrelevant cash flows

Relevant Costs	Irrelevant Costs
Cash based	Non cash costs e.g. depreciation, provisions etc.
Future inflows and outflows	Past / Historical / Sunk costs
Incremental costs	Fixed Costs
Opportunity costs	General Fixed costs
Differential costs	Allocated costs
Variable costs	Committed costs
Specific Fixed Costs	Apportioned costs
Attributable / Directly attributable Fixed costs	Absorbed costs
Working capital costs	

Investment Appraisal Techniques

Investment appraisal technique can be divided into two categories:

Traditional (Non-DCF) Techniques

- Simple Payback
- ARR (Accounting Rate of Return)

DCF Based Techniques

- Discounted Payback
- NPV (Net Present Value)
- IRR (Internal Rate of Return)

The payback period

Payback is the time it takes the cash inflows from a capital investment project to equal the cash outflows, usually expressed in years.

Advantages of the payback method

(a) It is **simple to calculate** and **simple to understand**. This may be important when management resources are limited. It is similarly helpful in communicating information about minimum requirements to managers responsible for submitting projects.

(b) It uses **cash flows** rather than accounting profits.

(c) It can be used as a **screening device** as a first stage in eliminating obviously inappropriate projects prior to more detailed evaluation.

(d) The fact that it tends to **bias** in favour of **short-term projects** means that it tends to minimise both financial and business risk.

(e) It can be used when there is a **capital rationing situation** to identify those projects which generate additional cash for investment quickly.

Disadvantages of the payback method

(a) It **ignores** the **timing** of cash flows within the payback period.

(b) It ignores the cash flows after the end of payback period and therefore the total project return.

(c) It **ignores the time value of money** (a concept incorporated into more sophisticated appraisal methods). This means that it does not take account of the fact that $1 today is worth more than $1 in one year's time. An investor who has $1 today can either consume it immediately or alternatively can invest it at the prevailing interest rate, say 10%, to get a return of $1.10 in a year's time.

(d) Payback is **unable to distinguish between projects** with the same payback period.

(e) The choice of any **cut-off** payback period by an organisation is **arbitrary**.

(f) It may lead to **excessive investment** in **short-term projects**.

(g) It takes account of the risk of the timing of cash flows but not the **variability** of those cash flows.

Accounting Rate of Return

$$\textbf{ARR} = \frac{\textbf{Average profits}}{\textbf{Average investment}} \times 100$$

The **return on capital employed** method (ROCE) (also called the **accounting rate of return** method or the **return on investment** (ROI) method) of appraising a capital project is to estimate the accounting rate of return that the project should yield. If it exceeds a target rate of return, the project will be undertaken

$$\textbf{Average Profit} = \frac{\textbf{Total Project Profit over life}}{\textbf{life (yrs)}}$$

$$\textbf{Average Investment} = \frac{\textbf{Opening + Ending}}{\textbf{2}}$$

OR

$$\textbf{Average Investment} = \frac{\textbf{Initial + Scrap Value}}{\textbf{2}}$$

The ARR and the comparison of mutually exclusive projects

The ROCE method of capital investment appraisal can also be used to compare two or more projects which are mutually exclusive. The project with the highest ROCE would be selected (provided that the expected ROCE is higher than the company's target ROCE).

Advantages of ARR
(a) It is a quick and simple calculation.

(b) It involves the familiar concept of a percentage return.

(c) It looks at the entire project life.

Disadvantages of ARR

(a) It is based on **accounting profits** and not cash flows. Accounting profits are subject to a number of different accounting treatments.

(b) It is a **relative measure** rather than an absolute measure and hence takes no account of the size of the investment.

(c) It takes no account of the length of the project.

(d) Like the payback method, it ignores the time value of money.

Time value of money

The concept of time value of money rests on the following assumptions

- Consumption Preference
- Investment Preference
- Risk Preference

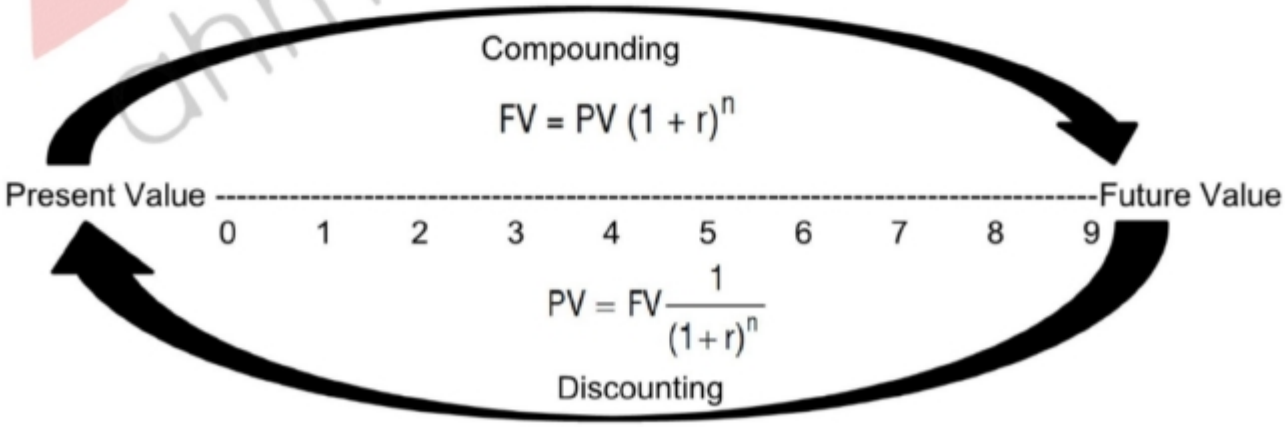
Discounted cash flow

Discounted cash flow, or **DCF** for short, is an investment appraisal technique which takes into account both the timings of cash flows and also total profitability over a project's life.

Two important points about DCF are as follows.

(a) DCF looks at the **cash flows** of a project, not the accounting profits. Cash flows are considered because they show the costs and benefits of a project when they actually occur and ignore notional costs such as depreciation.

(b) The **timing** of cash flows is taken into account by **discounting them**. The effect of discounting is to give a bigger value per $1 for cash flows that occur earlier: $1 earned after one year will be worth more than $1 earned after two years, which in turn will be worth more than $1 earned after five years, and so on.



where FV is the future value of the investment with interest
PV is the initial or 'present' value of the investment
r is the compound rate of return per time period, expressed as a proportion (so 10% = 0.10, 5% = 0.05 and so on)
n is the number of time periods.

Present value is the cash equivalent now of a sum of money receivable or payable at a stated future date, discounted at a specified rate of return.

The **cost of capital** has two aspects to it.

(a) It is the **cost of funds** that a company raises and uses.

(b) The return that investors expect to be paid for putting funds into the company. It is therefore the **minimum return** that a company should make from its own investments, to earn the cash flows out of which investors can be paid their return.

The net present value method

The **NPV method** of investment appraisal is to accept projects with a positive NPV. Ensure that you are aware of the three conventions concerning the timings of cash flows.

An **annuity** is a constant cash flow for a number of years. A **perpetuity** is a constant cash flow forever.

Net present value or **NPV** is the value obtained by discounting all cash outflows and inflows of a capital

investment project by a chosen target rate of return or **cost of capital.**

The NPV method compares the **present value** of all the **cash inflows** from an investment with the **present value** of all the **cash outflows** from an investment. The NPV is thus calculated as the PV of **cash inflows** minus the PV of **cash outflows**.

NPV	
NPV positive	Return from investment's cash inflows in excess of cost of capital ⇒ undertake project
NPV negative	Return from investment's cash inflows below cost of capital ⇒ don't undertake project
NPV 0	Return from investment's cash inflows same as cost of capital

Note. We assume that the cost of capital is the organisation's target rate of return.

NPV and shareholder wealth maximisation
If a project has a positive NPV it offers a **higher return** than the return required by the company to provide satisfactory returns to its sources of finance. This means that the **company's value** is increased and the project contributes to shareholder wealth maximisation.

Advantages of NPV

a) The method uses **all relevant cash flows** relating to the project

(b) It allows for the **timing** of the cash flows

(c) It allows for time value of money

Disadvantages of NPV

(a) The basic decision rule, accept all projects with a positive NPV, will not apply when the capital available for investment is **rationed**.

(b) The **cost of capital** used in DCF calculations may be **difficult to estimate**.

(c) The **cost of capital** may **change** over the life of the investment.

The internal rate of return method

The **IRR method** of investment appraisal is to accept projects whose IRR (the rate at which the NPV is zero) exceeds a target rate of return. The IRR is calculated using interpolation.

Using the **NPV method of discounted cash flow**, present values are calculated by discounting at a target rate of return, or cost of capital, and the difference between the PV of costs and the PV of benefits is the NPV. In contrast, the **internal rate of return (IRR)** method is to calculate the **exact DCF rate of return** which the project is expected to achieve, in other words the rate at which the **NPV is zero**. If the expected rate of return (the IRR or DCF yield) **exceeds** a **target rate** of return, the project would be worth undertaking (ignoring risk and uncertainty factors).

$$IRR \approx a + \left(\left(\frac{NPV_a}{NPV_a - NPV_b} \right) (b - a) \right)\%$$

where a = the lower of the two rates of return used
b = the higher of the two rates of return used
NPV_a = the NPV obtained using rate a
NPV_b = the NPV obtained using rate b

Note. Ideally NPVa will be a positive value and NPVb will be negative. (If NPVb is negative, then in the equation above you will be subtracting a negative, ie treating it as an added positive).

Advantages of IRR
(a) Information it provides is **more easily understood** by managers, especially non-financial managers.

(b) Based on cash flows rather than profits

(c) Also incorporates time value of money

(d) indicates return actually to be expected from expenditure

(e) May assist in ranking different proposals

Disadvantages of IRR

(a) Managers may **confuse IRR** and accounting return on capital employed, **ARR**

(b) IRR method **ignores** the **relative size** of investments

(c) May give multiple IRR or even no IRR when projects with un-conventional cashflows are appraised

(d) IRR and NPV may give different recommendations in case of mutually exclusive projects

(e) more difficult to calculate than NPV

(f) NPV is usually more useful in ranking different projects

Summary of NPV and IRR comparison

(a) When cash flow patterns are conventional both methods gives the **same** accept or reject **decision**.

(b) The IRR method is **more easily understood**.

(c) NPV is **technically superior** to IRR and simpler to calculate.

(d) **IRR** and **accounting ROCE** can be **confused**.

(e) **IRR ignores** the **relative sizes** of investments.

(f) Where cash flow patterns are non-conventional, there may be **several IRRs** which decision makers must be aware of to avoid making the wrong decision.

(g) The **NPV method** is superior for **ranking mutually exclusive projects** in order of attractiveness.

(h) The **reinvestment assumption** underlying the **IRR** method cannot be **substantiated**.

(i) When **discount rates** are **expected to differ** over the life of the project, such **variations** can be incorporated easily into **NPV** calculations, but not into IRR calculations.

(j) Despite the advantages of the NPV method over the IRR method, the **IRR method** is **widely used** in practice.

16 – Limiting Factor Analysis

Limiting Factor

Limiting factor is any factor that limits organizational activity. Every commercial business aims for profit maximization but its aim is restricted by some factors such as **availability of raw material** for production, **availability of labor hours, availability of machine hours, shortage of factory space, finance** etc. In Limiting factor analysis we need to identify that limiting factor and make an optimal production plan. Optimal plan is a production plan that maximizes overall company profitability.

Contribution = Sales – All Variable Costs
Contribution towards covering fixed costs and making profit

Product	**A**		**B**		**C**	
Selling price / unit		XXX		XXX		XXX
Less: Variable Cost / Unit						
Direct Material	X		X		X	
Direct Labor	X		X		X	
Direct Exp	X		X		X	
Variable OH	X	(XX)	X	(XX)	X	(XX)
Contribution / Unit		**XX**		**XX**		**XX**
Divide by						
Kgs / Hrs per unit		**X**		**X**		**X**
Contribution per unit of kg / hr		**XX**		**XX**		**XX**
Ranking		**3**		**1**		**2**

Optimal Production Plan and profit statement (in class)

Reducing the effect of limiting factors in long term

1. **Shortage of Raw Material**
   (a) Search for new source of raw material
   (b) Reduce the dependency on particular material or component by re-designing / re-engineering

2. **Shortage of Skilled Labour**
   (a) Attract more skilled labour by advertising and incentives such as increased pay, paying for moving costs etc

3. **Shortage of production capacity e.g. machinery, machine hours**
   (a) purchase of additional production machinery
   (b) sub-contract some work to outside companies

4. **Shortage of factory space**
   (a) increase factory space by building an extension
   (b) purchasing / Hiring an additional factory
   (c) sub-contract some work to outside companies

5. **Lack of Demand for a particular product**
   (a) increase sales levels by changing prices
   (b) advertising campaigns or giving sales incentives to staff / customers

6. **Shortage of finance**
   (a) Additional investment by owners / share holders
   (b) loans from bank or other sources