MS-4

1. Following are the balance sheets of a limited company as on 31st December, 2009 and 2010.

Liabilities	2009 Rs.	2010 Rs.	Assets	2009 Rs.	2010 Rs.
Share capital	54,000	74,000	Goodwill	3,000	2,520
Reserves	13,000	15,500	Buildings	50,950	48,000
P & L account	8,600	8,800	Plant	35,000	43,000
Bank loan (Long-term)	25,000	--	Stock	25,500	18,800
Creditors	28,000	24,000	Debtors	22,000	16,200
Bills payable	8,000	8,500	Cash	150	180
			Bank	--	2,100
Total	1,36,600	1,30,800		1,36,600	1,30,800

Taking into account the following additional information, your are required to prepare funds flow statement and statement change in working capital.

a. Dividend paid was Rs. 6,000.
b. Rs. 3,600 was written off as depreciation on plant and Rs. 2,950 on buildings.
c. Profit on sale of plant was Rs. 3,000.

Ans: **Working Notes**

Profit and loss adjustment account

To transfer to general reserve (15500 – 13000)	2500	By bal b/d	8600
To Dividend	6000	By profit on sale of plant	3000
To goodwill write-off (3000 -2520)	480	By funds from operation	12730
To Depreciation on plant	3600		
To depreciation on buildings	2950		
To Bal C/d	8800		
Total	24330		24330

Plant account

To bal b/d	35000	By depreciation	3600
To profit on sale	3000	By bank (sales)	--
To bank (purchase)	8600	By bal c/d	43000
Total	46600		46600

Building account

To bal b/d	50950	By depreciation	2950
		By bal c/d	49000
Total	50950		50950

Funds flow statement for the year 31st Dec 2010

Sources		Application	
Issue of shares (74000 – 54000)	20,000	Plant purchase	8600
Funds from operation	12,730	Dividend	6000
		Long term loan repaid	25000
Decrease in working capital	6870		
Total	39,600		39,600

Statements showing changes in working capital for the year 2010

	2009	2010	Increase	Decrease
Current assets				
Debts	22000	16200	--	6700
Stock	25500	18800	--	5800
Cash	150	180	30	--
Bank	--	2100	2100	--
Current liabilities				
Creditors	28000	24000	4000	
Bills payable	8000	8500		500
Total			6130	13000

Decrease in working capital = 6870

2. Two manufacturing companies which have the following operating details decide to merge:

Particulars	Company No. 1	Company No. 2
Capacity utilization %	90	60
Sales (Rs. Lakhs)	540	300
Variable cost (Rs. Lakhs)	396	225
Fixed cost (Rs. Lakhs)	80	50

Assuming that the proposal is implemented calculate: (i) Break-even sales of the merged plant and the capacity utilization at that stage. (ii) Profitability of the merged plant at 80% capacity utilization. (iii) Sales turnover of the merged plant to earn a profit of Rs. 75 lakhs. (iv) When the merged plant is working at a capacity to earn a profit of Rs. 75 lakhs what percentage increase in selling price is required to sustain an increase of 5% in fixed overheads.

Ans: (i) Break- even point in terms of sales value = $\frac{\textbf{Fixed costs}}{\textbf{Contribution}} \times \frac{\textbf{Fixed costs}}{\textbf{Contribution}} \times$ Sales

Merged plant Fixed cost = 80 + 50 = 130 lakhs
Merged plant variable cost = 621 lakhs
Merged plant sales = 840 lakhs
Contribution = Fixed cost + Profit
Profit = Sales – Total cost
= 840 – (130 + 621)
= 840 – 751 = 89 lakhs

∴ ∴ Contribution = 130 + 89 = 219 lakhs

∴ ∴ BE point = $\frac{130}{219} \times \frac{130}{219} \times$ 840 = 498.63 lakhs

(ii) At 90 % capacity utilization sales value of company No.1 = 540 lakhs

At 100% capacity utilization of company No. 1 sales value = $\frac{540}{90} \times \frac{540}{90} \times$ 100 = 600 lakhs

At 60% capacity utilization sales value of company No. 2 = 300

At 100% capacity utilization of company No. 2 sales value = $\frac{300}{60} \times \frac{300}{60} \times$ 100 = 500

∴ ∴ Merged plant capacity utilization = $\frac{1100 \times 100}{150} \quad \frac{1100 \times 100}{150}$ = 73.33%

At 80% capacity utilization = $\frac{840 \times 80}{73.33} \quad \frac{840 \times 80}{73.33}$ = 916.41lakhs

∴ ∴ Profit = Sales value – (FC +VC)
= 916.41 – 751
= 165.41 lakhs

(iii) Profit = 75 lakhs
Total cost = 751 lakhs
Sales value = Profit + Total cost
= 75 + 751 = 826 lakhs

(iv) Profit = 75 lakhs

Increase in fixed price is 5% = 130 + $\frac{130 \times 5}{100}$ $\frac{130 \times 5}{100}$ = 136.5 lakhs

Total cost = FC + VC = 621 + 136.5 = 757.5 lakhs
Sales = 75 + 757.5 = 832.5
Increase in sales = 832.5 – 826 = 6.5 lakhs

Percentage increase in selling price = $\frac{6.5 \times 100}{826}$ $\frac{6.5 \times 100}{826}$ = 0.78%

3. A company is considering to select a project out of the two mutually exclusive projects. The company's cost of capital is 10% and the net after tax cash flow of the project are as follows:

Year	0	1	2	3	4	5
Project X (Rs.)	2,00,000	35,000	80,000	90,000	75,000	20,000
Project Y (Rs.)	2,00,000	2,18,000	10,000	10,000	4,000	3,000

i. Calculate the NPV and IRR of each project.
ii. State with reasons which project you would recommend

The discount factors are as follows:

Year	0	1	2	3	4	5
Discount factor						
At 10%	1	0.91	0.83	0.75	0.68	0.62
At 20%	1	0.83	0.69	0.58	0.48	0.41

Ans: (i)
Net Present Value at 20%:

Year	Project X			Project Y		
	Net Cash income (Rs.)	Discount Factor	PV Rs.	Net Cash income (Rs.)	Discount Factor	PV Rs.
0	2,00,000	1	2,00,000	2,00,000	1	2,00,000
1	35,000	0.83	29050	2,15,000	0.83	1,78,450
2	80,000	0.69	55200	10,000	0.69	6,900
3	90,000	0.58	52200	10,000	0.58	5,800
4	75,000	0.48	36000	4000	0.48	1,920
5	20,000	0.41	8200	3,000	0.41	1,230
			3,80,0650			3,94,300

Net Present Value at 10%:

Year	Project X			Project Y		
	Net Cash income (Rs.)	Discount Factor	PV Rs.	Net Cash income (Rs.)	Discount Factor	PV Rs.
0	2,00,000	1	2,00,000	2,00,000	1	2,00,000
1	35,000	0.91	31850	2,15,000	0.91	1,95,650
2	80,000	0.83	66,400	10,000	0.83	8300
3	90,000	0.75	67500	10,000	0.75	7500
4	75,000	0.68	51000	4000	0.68	2720
5	20,000	0.62	12400	3,000	0.62	1860
			4,29,150			4,16,030

Internal Rate of Return: IRR = LRD + $\frac{NPVR}{PV} \frac{NPVR}{PV}$ x R

LRD = Lower rate of discount
NPVR = Net present value at lower rate of discount
PV = Difference in present value of lower and higher
R = Difference between two rates of discount

4. What is capital structure? Discuss the determinants of capital structure.

Ans: **Capital structure**: It represents the total long-term investment in a business firm. It includes funds raised through ordinary and preference shares, bonds, debentures, term loans from financial institutions, etc. Any earned revenue and capital surpluses are included.

Capital Structure Planning: Decision regarding what type of capital structure a company should have is of critical importance because of its potential impact on profitability and solvency. The small companies often do not plan their capital structure. The capital structure is allowed to develop without any formal planning. These companies may do well in the short-run, however, sooner or later they face considerable difficulties. The unplanned capital structure does not permit an economical use of funds for the company. A company should therefore plan its capital structure in such a way that it derives maximum advantage out of it and is able to adjust more easily to the changing conditions. Instead of following any scientific procedure to find an appropriate proportion of different types of capital which will minimise the cost of capital and maximise the market value, a company may just either follow what other comparable companies do regarding capital structure or may consult some institutional lender and follow its advice.

Theoretically, a company should plan an optimum capital structure in such a way that the market value of its shares is maximum. The value will be maximised when the marginal real cost of each source of funds is the same. In general, the discussion on the issue of optimum capital structure is highly theoretical. The determination of an optimum capital structure in practice is a formidable task, and we have to go beyond the theory. That is why, perhaps, significant variations among industries and among' different companies within the same industry regarding capital structure are found. A number of factors influence the capital structure decision of a company. The judgement of the person or group of persons making the capital structure decision plays a crucial role. Two similar companies can have different capital structures if the decision makers differ in their judgement about the significance of various factors. These factors are highly psychological, complex and qualitative and do not always follow the accepted theory. Capital markets are not perfect and the decision has to be taken with imperfect knowledge and consequent risk. You might have become interested in identifying some of the important factors which influence the planning of the capital structure in practice. However, before we discuss these factors let us examine the features of an appropriate capital structure in the next section.

Determinants of capital structure: capital structure should be designed very carefully. The

management of the company should set a target capital structure and the subsequent financing decisions should be made with a view to achieve the target capital structure. Once a company has been formed and it has been in existence for some years, the financial manager then has to deal with the existing capital structure. The company may need funds to finance its activities continuously. Every time the funds have to be procured, the financial manager weighs the pros and cons of various sources of finance and selects most advantageous sources keeping in view the target capital structure: Thus the capital structure decision is a continuous one and has to be taken whenever a firm needs additional finance.

The factors to be considered whenever a capital structure decision is taken are: (i) Financial Leverage or Trading on equity, (ii) Cost of capital, (iii) Cash flow, (iv) Control, (v) Flexibility, (vi) Size of the company, (vii) Marketability, and (viii) Floatation costs. Let it's briefly explain these factors.

(i)Financial Leverage or Trading on Equity: The use of sources of finance with a fixed cost, such as debt and preference share capital, to finance the assets of the company is known as **financial leverage** or **trading on equity.** If the assets financed by debt yield a return greater than the cost of the debt, the earnings per share will increase without an increase in the owners' investment. Similarly, the earnings per share will also increase if preference share capital is used to acquire assets. But the leverage impact is felt more in case of debt because (i) the cost of debt is usually lower than the cost of preference share capital, and (ii) the interest paid on debt is a deductible charge from profits for calculating the taxable income while dividend on preference shares is not. Because of its effect on the earnings per share, financial leverage is one of the important considerations in planning the capital structure of a company. The companies with high level of the Earnings Before Interest and Taxes (EBIT) can make profitable use of the high degree of leverage to increase return on the shareholders' equity. One common method of examining the impact of leverage is to analyse the relationship between Earnings Per Share (BPS) at various possible levels of EBIT under alternative methods of financing. The EBIT-EPS analysis is one important tool in the hands of the financial manager to get an insight into the firm's capital structure management. He can consider the possible fluctuations in EBIT and examine their impact on EPS under different financing plans.

(ii) Cost of Capital: Measuring the costs of various sources of funds is a complex subject and needs a separate treatment. Needless to say that it is desirable to minimise the cost of capital. Hence, cheaper sources should be preferred, other things remaining the same. The cost of a source of finance is the minimum return expected by its suppliers. The expected return depends on the degree of risk assumed by investors. A high degree of risk is assumed by shareholders than debt-holders. In the case of debt-holders, the rate of interest is fixed and the company is legally bound to pay interest, whether it makes profits or not. For shareholders the rate of dividend is not fixed and the Board of Directors has no legal obligation to pay dividends even if the profits have been made by the company. The loan of debt-holders is returned within a prescribed period, while shareholders can get back their capital only when the company is wound up. This leads one to conclude that debt is a cheaper source of funds than equity. The tax deductibility of interest charges further reduces the cost of debt. The preference share capital is cheaper than equity capital, but is not as cheap as debt is. Thus, in order to minimise the overall cost of capital, a company should employ a large amount of debt.

(iii) Cash Flow: One of the features of a sound capital structure is conservation. Conservation does not mean employing no debt or a small amount of debt. Conservatism is related to the assessment of the liability for fixed charges, created by the use of debt or preference capital in the capital structure in the context of the firm's ability to generate cash to meet these fixed charges. The fixed charges of a company include payment of interest, preference dividend and principal. The amount of fixed charges will be high if the company employs a large amount of debt or preference capital. Whenever a company thinks of raising additional debt, it should analyse its expected future cash flows to meet the fixed charges. It is obligatory to pay interest and return the principal amount of debt. If a company is not able to generate enough cash to meet its fixed obligations, it may have to face financial insolvency. The companies which expect large and stable cash inflows can employ a large amount of debt in their capital structure. It is somewhat risky to employ sources of capital with fixed charges for companies whose cash inflows are unstable or unpredictable.

(iv) Control: In designing the capital structure, sometimes the existing management is governed by its desire to continue control over the company. The existing management team may not only what to be elected to the Board of Directors but may also desire to manage the company without any outside interference. The ordinary shareholders have the legal right to elect the directors of the company. If the company issues new shares, there is a risk of loss of control. This is not a very important consideration in case of a widely held company. The shares of such a company are widely scattered. Most of the shareholders are not interested in taking active part in the company's management. They do not have the time and urge to attend the meetings. They are simply interested in dividends and appreciation in the price of shares. The risk of loss of control can almost be avoided by distributing shares widely and in small lots. Maintaining control however could be a significant question in the case of a closely held company. A shareholder or a group of shareholders could purchase all or most of the new shares and thus control the company. Fear of having to share control and thus being interfered by others often delays the decision of the closely held companies to go public. To avoid the risk of loss of control the companies may issue preference shares or raise debt capital.

(v) Flexibility: Flexibility means the firm's ability to adapt its capital structure to the needs of the changing conditions. The capital structure of a firm is flexible if it has no difficulty in changing its capitalisation or sources of funds. Whenever needed the company should be able to raise funds without undue delay and cost to finance the profitable investments. The company should also be in a position to redeem its preference capital or debt whenever warranted by future conditions. The financial plan of the company should be flexible enough to change the composition of the capital structure. It should keep itself in a position to substitute one form of financing for another to economise on the use of funds.

(vi) Size of the Company: The size of a company greatly influences the availability of funds from different sources. A small company may often find it difficult to raise long-term loans. If somehow it manages to obtain a long-term loan, it is available at a high rate of interest and on inconvenient terms. The highly restrictive covenants in loans agreements of small companies make their capital structure quite inflexible. The management thus cannot run business freely. Small companies, therefore, have to depend on owned capital and retained earnings for their long-term funds. A large company has a greater degree of flexibility in designing its capital structure. It can obtain loans at easy terms and can also issue ordinary shares, preference shares and debentures to the public. A company should make the best use of its size in planning the capital structure.

(vii) Marketability: Marketability here means the ability of the company to sell or market particular type of security in a particular period of time which in turn depends upon -the readiness of the investors to buy that security. Marketability may not influence the initial capital structure very much but it is an important consideration in deciding the appropriate timing of security issues. At one time, the market favours debenture issues and at another time, it may readily accept ordinary share issues. Due to the changing market sentiments, the company has to decide whether to raise funds through common shares or debt. If the share market is depressed, the company should not issue ordinary shares but issue debt and wait to issue ordinary shares till the share market revives. During boom period in the share market, it may not be possible for the company to issue debentures successfully. Therefore, it should keep its debt capacity unutilised and issue ordinary$_4$shares to raise finances.

(viii) Floatation Costs: Floatation costs are incurred when the funds are raised. Generally, the cost of floating a debt is less than the cost of floating an equity issue. This may encourage a company to use debt rather than issue ordinary shares. If the owner's capital is increased by retaining the earnings, no floatation costs are incurred. Floatation cost generally is not a very important factor influencing the capital structure of a company except in the case of small companies.

5. Explain the following:
(a) Zero base budgeting:
(b) Performance budgeting
(c) Budgetary control system
(d) Marginal costing

Ans: (a) **Zero base budgeting**: Zero Base Budgeting is a method of budgeting whereby all activities are revaluated each time a budget is formulated. It is an approach to budget review and evaluated that requires a manager to justify the resources requested for all activities and projects, including ongoing activities and projects, in rank order. Each functional budget start with the assumption that the function does not exist and it is at zero cost. In other words, it is an expenditure control device where without reference to the past budget or achievement each divisional head has to justify the requirements of funds for each head of expenditure and prepare the budget accordingly.

According to Leonard Merewit "Z.B.B is technique which compliments and links the existing planning, budgeting and review process. It identifies alternatives and efficient methods of utilizing limited resources and effective attainment of selected benefits. It is a flexible management approach which provides a credible rationale for reallocating resources by focusing on a systematic review and justification of the funding and performance level of correct programming or activities."

The budgeting function starts from zero and not on the basis of trends or historical figures adjusted for inflation and other conditions. It starts from the basic premise that the budget for

the next year is zero and every process or expenditure has then to be justified in its entity in order to be included in the next year's budget. Important point of this Budget is that the burden of proof thus shifts to each manager to justify why the money sho0uld be spent as all and to indicate what would happen if the proposed activities are not carried out and no money is spent.

Steps involved in Zero Base Budgeting:

i. Corporate objective should be established and laid down in details.
ii. Decision units are identified by dividing the organisation according to functions or departments.
iii. The activity of each function or department is described, analysed and documented.
iv. The targets and objectives of each activity are clearly determined ignoring existing budget.
v. The performance assessment and measurement criteria for each activity are clearly defined.
vi. Each separate activity of the organisation is described in decision package.
vii. Each activity or decision package is evaluated and ranked by cost benefit analysis.
viii. Available resources are directed towards alternatives in order of priority to ensure optimum results.

The advantages of Z.B.B. are as follows:

i. It provides a systematic approach for the evaluation of different activities and ranks then in order of preference for the allocation of scarce resources.
ii. It adds psychological impetus to employ to avoid wasteful expenditure.
iii. It is planning tool for management which helps in identification of wasteful and obsolescent items of expenditure.
iv. It renders greater flexibility on the top-level management in the allocation of available financial resources while choosing between different levels of particular activity.
v. It ensures the optimum use of available resources as the allocation is based on raking of the competing claims of funds by their relative cost benefit analysis.
vi. Under it each activity is thoroughly examined and justified.
vii. Since this system requires participation of all manages in preparation of budgets, responsibility of all levels of management in successful execution of budgetary system can be ensured.

All above benefits through implementation of zero base budgeting makes the managers to work more efficiently and effectively in decision making problems.

(b) **Performance budgeting**: Budget in the ordinary sense of the term, denotes the facts related to the planned income and expenditure prepared for a specific future date. It is prepared in the form of a statement expressed either in monetary terms or only in numbers, or both. Performance budgeting involves evaluation of the performance of the organisation in the context of both specific, as well as, overall objectives of the organisation. It presupposes a crystal clear perception of organisational objectives in general, and short-term business objectives as stipulated in the budget, in particular by each employee of the organisation, irrespective of his level. It thus, provides a definite direction to each employee and also a control mechanism to higher management.

As per ICMA, " The budget is a financial and or quantitative statement, prepared and approved prior to a defined period of time, of the policy to be pursed to be during that period for the purpose of attaining a given objective."

As per the National Institute of Bank Management, Bombay the performance budget technique is "The processes of analysis, identifying, simplifying and crystallising specific performance objective of a job to be achieved over a period, within the framework of organisational objectives, the purposes and objectives of job. The technique is characterised by its specific direction towards the business objectives of the organisation."

The Main objectives of PB are: (i) to coordinate the physical and financial aspects; (ii) to improve the budget formulation, review and decision-making at all levels of management (iii) to facilitate better appreciation and review by controlling authorities (legislature, Board of Trustees or Governors, etc) as the presentation is more purposeful and intelligible; (iv) to make more effective performance audit possible; and (v) to measure progress towards long-term objectives which are envisaged in a development plan. In performance budgeting (PB), precise detainment of job to be performed or services to be rendered is done. Secondly, the budget is prepared in terms of functional categories and their sub-division into programmes, activities, and projects. Thirdly, the budget becomes a comprehensive document. Since the financial and physical results are interwoven, it facilitates management control. Performance budgeting (or programme budgeting) has been designed to correct the shortcomings of traditional budgeting by emphasizing management's considerations/ approaches. Both the financial and physical aspects are incorporated into the budget. A performance budget presents the operations of an organisation in terms of functions, programmes, activities, and projects. The traditional (also known as line-item or object-account) budget in government enumerates estimated expenditures by type (and quantity) for a specified period of time, usually one year. The expenditure is classified by object; the personnel are listed by type of position; the budget is divided into sections according to organisational units, department sections; and the types of expenditure are listed by category. The necessity for linking the expenditures (or inputs in financial terms) to outputs (in physical terms), facilitating the evaluation of outcomes (or result of activities) cannot be overemphasized. Performance budgeting requires preparation of periodic performance reports. Such reports compare budget and actual data, and show variances. Their preparation is greatly facilitated if the authority and responsibility for the incurrence of each cost element is clearly defined within the firm's organisational structure. In addition, the accounting system should be sufficiently detailed and coordinated to provide necessary data for reports designed for the particular use of the individuals or cost centres having primary responsibility for specific cost. The responsibility for preparing the performance budget of each department lies on the respective Department Head. Each Department Head will be supplied with a copy of the section of the master budget appropriate to his sphere. For example, the chief buyer will be supplied with the copy of the materials purchase budget so that he may arrange for purchase of necessary materials. Periodic reports from various sections of a department will be received by the departmental head that will submit a summary report about his department to the budget committee. The report may be daily, weekly or monthly, depending upon the size of business and the budget period. These reports will be in the form of comparison of budgeted and actual figures, both periodic and cumulative. The purpose of preparing these reports is to promptly inform about the deviations in actual and budgeted activity to the person who has the necessary authority and responsibility to take necessary action to correct the deviations from the budget.

(c) **Budgetary control system**: No system of planning can be successful without having an effective and efficient system of control. Budgeting is closely connected with control. The exercise of control in the organisation with the help of budgets is known as budgetary control. The process of budgetary control includes

(i) Preparation of various budgets
(ii) Continuous comparison of actual performance with budgetary performance and
(iii) Revision of budgets in the light of changed circumstances.

A system of budgetary control should not become rigid. There should be enough scope for flexibility to provide for individual initiative and drive. Budgetary control is an important device for making the organisation more efficient on all fronts. It is an important tool for controlling costs and achieving the overall objectives.

Installing A Budgetary Control System: Having understood the meaning and significance of budgetary control in an organisation, it will be useful for you to know how a budgetary control system can be installed in the organisation. This requires first of all, finding answers to the following questions in the context of an organisation:

What is likely to happen?
What can be made to happen?
What are the objectives to be achieved?
What are the constraints and to what extent their effects can be minimised?

Having found answers to the above questions, the following steps may be taken for installing an effective system of budgetary control in an organisation.

Organisation for Budgeting: The setting up of a definite plan of organisation is the first step towards installing budgetary control system in an organisation. A, Budget Manual should be prepared giving details of the powers, duties, responsibilities and areas of operation of each executive in the organisation.

Responsibility for Budgeting: The responsibility for preparation and implementation of the budgets may be fixed as under:

Budget Controller: Although the Chief Executive is finally responsible for the budget programme, it is better if a large part of the supervisory responsibility is delegated to an official designated as Budget Controller or Budget Director. Such a person should have knowledge of the technical details of the business and should report directly to the President of the Chief Executive of the organisation.

Budget Committee: The Budget Controller is assisted in his work by the Budget Committee. The Committee may consist of Heads of various departments, viz., Production, Sales Finance, Personnel, Purchase, etc. with the Budget Controller as its Chairman. It is generally the responsibility of the Budget Committee to submit, discuss and finally approve the budget figures. Each head of the department should have his own Sub-committee with executives working under him as its members.

Fixation of the Budget Period: `Budget period' means the period for which a budget is prepared and employed. the budget period depends upon the nature of the business and the control techniques. For example, a seasonal industry will budget for each season, while an industry requiring long periods to complete work will budget for four, five or even larger number of years. However, it is necessary for control purposes to prepare budgets both for long as well as short periods.

Budget Procedures: Having established the budget organisation and fixed the budget period, the actual work or budgetary control can be taken upon the following pattern:

Key Factor: It is also termed as limiting factor. The extent of influence of this factor must first be assessed in order to ensure that the budget targets are met. It would be desirable to prepare first the budget relating to this particular factor, and then prepare the other budgets. We are giving below an illustrative list of key factors in certain industries. 69 Budgeting and Budgetary Control

Industry	**Key factor**
Motor Car	Sales demand
Aluminium	Power
Petroleum Refinery	Supply of crude oil
Electro-optics	Skilled technicians
Hydra power generation	Monsoon

The key factors should be correctly identified and examined. The key factors need not be of a permanent nature. In the long run, the management may overcome the key factors by introducing new products, by changing material mix or by working overtime or extra shifts etc.

Making a Forecast: A forecast is an estimate of the future financial conditions or operating results. Any estimation is based on consideration of probabilities. An estimate differs from a budget in that the latter embodies an operating plan of an organisation. A budget envisages a commitment to certain objectives or targets, which the management seeks to attain on the basis of the forecasts prepared. A forecast on the other hand is an estimate based on probabilities of an event. A forecast may be prepared in financial or physical terms for sales, production cost, or other resources required for business. Instead of just one forecast a number of alternative forecasts may be considered with a view to obtaining the most realistic, overall

plan.

Preparing Budgets: After the forecasts have been finalised the preparation of budgets follows. The budget activity starts with the preparation of the sales budget. Then production budget is prepared on the basis of sales budget and the production capacity avail-able. Financial budget (i.e. cash or working capital budget) will be prepared on the basis of sales forecast and production budget. All these budgets are combined and coordinated into a master budget. The budgets may be revised in the course of the financial period if it becomes necessary to do so, in view of the unexpected developments, which have already taken place or are likely to take place. Choice between Fixed and Flexible Budgets: A budget may be fixed or flexible. A fixed budget is based on a fixed volume of activity. It may lose its effectiveness in planning and controlling if the actual capacity utilisation is different from what was planned for any particular unit or time e.g. a month or a quarter, The flexible budget is more useful for changing levels of activity as it considers fixed and variable costs separately. Fixed costs, as you are aware, remain unchanged over a certain range of output. Such costs change when there is a change in capacity level. The variable costs change in direct pro-portion to output. If flexible budgeting approach is adopted, the budget controller can analyse the variance between actual costs and budgeted costs depending upon the actual level of activity attained during a period of time. This will be explained in detail a little later.

(d) **Marginal costing**: The technique of Marginal Costing is a definite improvement over the technique of Absorption Costing. According to this technique, only the variable costs are considered in calculating the cost of the product, while fixed costs are charged against the revenue of the period. The revenue arising from the excess of sales over variable costs is technically known as Contribution under Marginal Costing.
The following example will help you in understanding the technique.

Example (i) : From the following data, Let us prepare a statement of cost and profit according to Marginal Costing Technique.

Statement of Cost and Profit
(According to Marginal Costing Technique)

	Product A		Product B		Product C	
	Per Unit	Total	Per unit	Total	Per unit	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Direct Material	3	3,000	4	4,000	5	5,000
Direct Labour	2	2,000	3	3,000	4	4,000
Variable overheads	1	1,000	1	1,000	1	1,000
Total marginal cost	6	6,000	8	8,000	10	10,000
Contribution	4	4,000	7	7,000	10	10,000
Selling price	10	10,000	15	15,000	20	20,000

Thus, the total contribution from the three products A, B and C is Rs. 21,000. The profit will now be computed as follows:

Total Contribution:	Rs. 21,000
Fixed costs:	Rs. 9,000

Profit	Rs. 12,000

Example (ii): Let us prepare the statement profit or loss account for the following data by using Marginal costing technique.

Profit loss account for first year

	Rs.			Rs.
Direct Material			Sales	--
A	3,000		Closing stock	24,000
B	4,000		Loss	9,000
C	5,000	12,000		
Direct Labour				
A	2,000			
B	3,000			
C	4,000	9,000		
Variable		3,000		
Fixed overheads		9,000		
		33,000		33,000

Profit loss account for second year

	Rs.		Rs.	
Opening stock	24,000	Sales		
Fixed overheads	9,000	A	10,000	
		B	15,000	
Profit	12,000	C	20,000	45,000
	45,000			45,000

The above statement shows that the company suffers a loss of Rs. 9,000 in the first year because of non-recovery of fixed overheads, while in the second year it makes a profit of Rs. 12,000. It may be seen from the two years ` Profit and Loss Accounts that the fixed cost of one year has not been carried forward to the next year, Thus, the profit and Loss Account gives a correct picture.