

IARE '24 DISCORD TEAM

II-II

BEFA MODULE 4 SOLUTIONS

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CAPITAL BUDGETING



Few Pending ▾

BEFA MODULE 4

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Refer above link ppt for theory

PART A

1. Give various examples of capital budgeting decisions and classify them into specific kinds.

The kinds of Capital Budgeting Decisions are –

- **Accept Reject Decisions:**

This type of decision is basic to capital budgeting. If the proposed project is accepted by the top management the company proceeds with the investment of funds there in. Alternatively if the project is rejected the company does not make any investment. All those proposals which yield a rate of return or greater than the cost of capital are accepted and the rest are rejected.

- **Mutually Exclusive Decisions:**

It includes all those projects which compete with each other in a way that acceptance of one precludes the acceptance of other or others. Thus some technique has to be used for selecting the best among all and eliminates the other alternatives.

- **Capital Rationing Decisions**

Capital budgeting decision is a simple process in those firms where funds is not the constraint but in majority of the cases firms have the fixed capital budget. So a large number of projects compete for these limited budgets. So firms ratio them in a manner as to maximize the long run returns situation where in the firm which have more acceptable investments requiring greater amount of finance than is available with the firm. It is concerned with the selection of a group of investments out of many investment proposals ranked in the decision order of the rate of return.

2. What is the importance of capital budgeting? Explain the basic steps involved in evaluating capital budgeting proposals.

Capital budgeting is a process that helps in planning the investment projects of an organization in the long run. It takes all possible considerations into account so that the company can evaluate the profitability of the project. It is useful for evaluating capital investment projects such as purchasing equipment, rebuilding equipment, etc. The benefit from an investment may be in the form of a reduction in cost or in the form of increased revenue. The importance of capital budgeting can be understood from its impact on the business.

Businesses exist to earn profit except for non-profit organizations. Capital budgeting is very important for any business as it impacts the growth & prosperity of the business in the long term. It creates accountability & measurability. Some of the popular capital budgeting techniques are net present value, internal rate of return, payback period, accounting rate of return & profitability index.

Steps involved in evaluating capital budgeting proposals:

1. Identify and evaluate potential opportunities

The process begins by exploring available opportunities. For any given initiative, a company will probably have multiple options to consider. For example, if a company is seeking to expand its warehousing facilities, it might choose between adding on to its current building or purchasing a larger space in a new location. As such, each option must be evaluated to see what makes the most financial and logistical sense. Once the most feasible opportunity is identified, a company should determine the right time to pursue it, keeping in mind factors such as business need and upfront costs.

2. Estimate operating and implementation costs

The next step involves estimating how much it will cost to bring the project to fruition. This process may require both internal and external research. If a company is looking to upgrade its computer equipment, for instance, it might ask its IT department how much it would cost to buy new memory for its existing machines while simultaneously pricing out the cost of new computers from an outside source. The company should then attempt to further narrow down the cost of implementing whichever option it chooses.

3. Estimate cash flow or benefit

Now we determine how much cash flow the project in question is expected to generate. One way to arrive at this figure is to review data on similar projects that have proved successful in the past. If the project won't directly generate cash flow, such as the upgrading of computer equipment for more efficient operations, the company must do its best to assign an estimated cost savings or benefit to see if the initiative makes sense financially.

4. Assess risk

This step involves estimating the risk associated with the project, including the amount of money the company stands to lose if the project fails or can't produce its previously anticipated results. Once a degree of risk is determined, the company can evaluate it against its estimated cash flow or benefit to see if it makes sense to pursue implementation.

5. Implement

If a company chooses to move forward with a project, it will need an implementation plan. The plan should include a means of paying for the project at hand, a method for tracking costs, and a process for recording cash flows or benefits the project generates. The implementation plan should also include a timeline with key project milestones, including an end date if applicable.

3. What is NPV & IRR Compare and contrast the two methods of evaluating capital budgeting proposals.

Net present value (NPV) is the difference between the present value of cash inflows and the present value of cash outflows over a period of time. By contrast, the internal rate of return (IRR) is a calculation used to estimate the profitability of potential investments.

The two capital budgeting methods have the following differences:

- **Outcome:** The NPV method results in a dollar value that a project will produce, while IRR generates the percentage return that the project is expected to create.
- **Purpose:** The NPV method focuses on project surpluses, while IRR is focused on the breakeven cash flow level of a project.
- **Decision support:** The NPV method presents an outcome that forms the foundation for an investment decision, since it presents a dollar return. The IRR method does not help in making this decision, since its percentage return does not tell the investor how much money will be made.

- **Reinvestment rate:** The presumed rate of return for the reinvestment of intermediate cash flows is the firm's cost of capital when NPV is used, while it is the internal rate of return under the IRR method.
- **Discount rate issues:** The NPV method requires the use of a discount rate, which can be difficult to derive, since management might want to adjust it based on perceived risk levels. The IRR method does not have this difficulty, since the rate of return is simply derived from the underlying cash flows.

4. What are major sources of short-term finance?

The major sources of short-term finance are discussed below:

1. **Trade credit:** Trade credit is a common source of short-term finance available to all companies. It refers to the amount payable to the suppliers of raw materials, goods etc. after an agreed period, which is generally less than a year. It is customary for all business firms to allow credit facilities to their customers in trade business. Thus, it is an automatic source of finance. With the increase in production and corresponding purchases, the amount due to the creditors also increases. Thereby part of the funds required for increased production is financed by the creditors.
2. **Bank loans and advances:** Money advanced or granted as loan by commercial banks is known as bank credit. Companies generally secure bank credit to meet their current operating expenses. The most common forms are cash credit and overdraft facilities. Under the cash credit arrangement the maximum limit of credit is fixed in advance on the security of goods and materials in stock or against the personal security of directors. The total amount drawn is not to exceed the limit fixed. Interest is charged on the amount actually drawn and outstanding. During the period of credit, the company can draw, repay and again draw amounts within the maximum limit. In the case of overdraft, the company is allowed to overdraw its current account up to the sanctioned limit. This facility is also allowed either against personal security or the security of assets. Interest is charged on the amount actually overdrawn, not on the sanctioned limit.

5. What is meant by discounting and time value of money? How is it useful in capital budgeting?

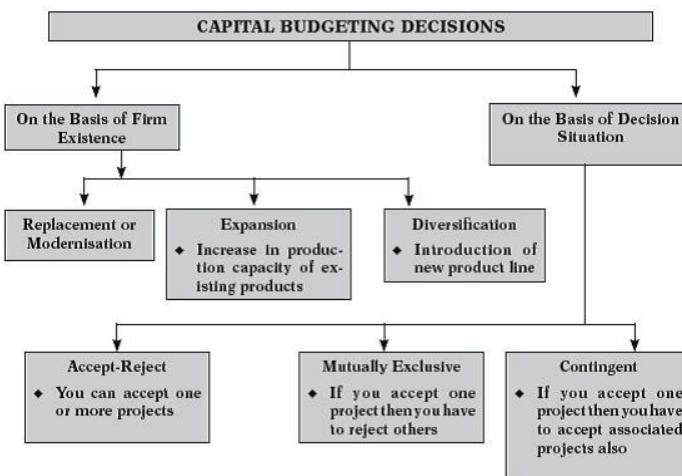
Discounting can be defined as the act of estimating the present value of a future payment or a series of cash flows that are to be received in the future. It is a key element in valuing future cash flows.

Time Value of Money (TVM) is a fundamental financial concept, stating that the current value of money is higher than its future value, given its potential to earn in the years to come. Thus, it suggests that a sum of money in hand is greater in value than the same sum of money received in the next couple of years.

The time value of money is important in capital budgeting decisions because it allows small-business owners to adjust cash flows for the passage of time. This process, known as discounting to present value, allows for the preference of money received today over money received tomorrow.

6. Demonstrate capital budgeting decisions under various circumstances.

Capital budgeting decision refers to the decision in respect of purchase or sale of fixed assets and long term investment.



7. How is capital budgeting important for the finance of the organization?

Produce the basic steps involved in capital budgeting proposal decisions.

- Capital budgeting is important because it creates accountability and measurability. Any business that seeks to invest its resources in a project

without understanding the risks and returns involved would be held as irresponsible by its owners or shareholders.

- Furthermore, if a business has no way of measuring the effectiveness of its investment decisions, chances are the business would have little chance of surviving in the competitive marketplace.
- Businesses (aside from non-profits) exist to earn profits. The capital budgeting process is a measurable way for businesses to determine the long-term economic and financial profitability of any investment project.

The process of Capital Budgeting involves the following points:

- **Identifying and generating projects**

Investment proposals are the first step in capital budgeting. Taking up investments in a business can be motivated by a number of reasons. There could be the addition or expansion of a product line. An increase in production or a decrease in production costs could also be suggested.

- **Evaluating the project**

It mainly consists of selecting all criteria necessary for judging the need for a proposal. In order to maximize market value, it has to match the company's mission. It is crucial to consider the time value of money here.

- **Selecting a Project**

After the project has been finalized, the other components need to be attended to. These include the acquisition of funds which can be explored by the finance department of the company. The companies need to explore all the options before concluding and approving the project. Besides, the factors like viability, profitability, and market conditions also play a vital role in the selection of the project.

- **Implementation**

Once the project is implemented, now come the other critical elements such as completing it in the stipulated time frame or reduction of costs. Hereafter, the management takes charge of monitoring the impact of implementing the project.

- **Performance Review**

This involves the process of analyzing and assessing the actual results over the estimated outcomes. This step helps the management identify the flaws and eliminate them for future proposals.

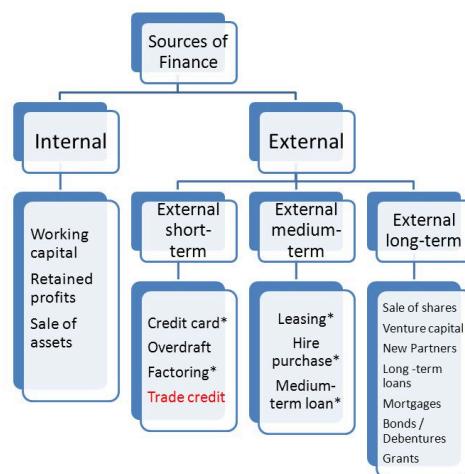
8. Classify NPV & IRR and describe the two methods of evaluating capital budgeting proposals.

Same as the 3rd Question.

9. In what way does medium term finance distinguish from sources of short-term finance?

Medium-term financial requirements are required for a period exceeding one year but not exceeding five years. All funds needed for meeting the defined revenue expenditures like expenses on heavy publicity and advertisement campaigns shall be considered as medium-term financial needs.

Short-term financial requirements arise for a short period of time often not exceeding one year (i.e., accounting period). All funds needed for financing current assets/for meeting working capital requirements shall be considered as short-term financial needs.



10. Explain the time value of money and how is it useful in capital budgeting?

Time Value of Money (TVM) is a fundamental financial concept, stating that the current value of money is higher than its future value, given its potential to earn in the years to come. Thus, it suggests that a sum of money in hand is greater in value than the same sum of money received in the next couple of years.

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PART B

1. Define Capital and different types of capital. Explain its significance.

Capital is anything that increases one's ability to generate value. It can be used to increase value across a wide range of categories, such as financial, social, physical, intellectual, etc. In business and economics, the two most common types of capital are financial and human.

Types of Capital:

The different types of capital include:

1. Financial

- Equity
- Debt
- Investments
- Working capital

2. Human

- Social
- Intellectual
- Physical
- Talents/skills

3. Natural

- Commodities
- Animals
- Vegetation
- Ecologies

- **Financial**

The most common forms of financial capital are debt and equity. Debt is a loan or financial obligation that must be repaid in the future. It has an interest expense attached to it, which is the cost of borrowing money. The cash received from borrowing money is then used to purchase an asset and fund the operations of a business, which in turn generates revenues for a company.

- **Human**

Human capital is used by businesses to create products and perform services that can be used to generate revenue for the company. Companies don't "own" people the way they do other assets. The most common types of human capital are intellectual and skills/talents.

2. Discuss the factors which are influenced on working capital requirements.

There are a large number of factors such as the nature and size of business, the character of their operations, the length of production cycle, the rate of stock turnover and the state of economic situation etc. that decode the requirement of working capital. These factors have different importance and influence on firms differently. In general the following factors generally influence the working capital requirements.

1. Nature or character of business: The working capital requirements of a firm basically depend upon the nature of its business. Public utility undertakings like electricity, water supply and railways need very limited working capital as their sales are on cash and are engaged in provision of services only.
2. Size of business or scale of operations: The working capital requirements of a concern are directly influenced by the size of its business, which may be measured in terms of scale of operations. Greater the size of a business unit,

generally, larger will be the requirements of working capital. However, in some cases, even a smaller concern may need more working capital due to high overhead charges, inefficient use of available resources and other economic disadvantages of small size.

3. Manufacturing process/Length of production cycle: In manufacturing business, the requirements of working capital will be in direct proportion to the length of manufacturing process. Longer the process period of manufacture, larger is the amount of working capital required, as the raw materials and other supplies have to be carried for a longer period

4. Rate of growth of business: The working capital requirements of a concern increase with the growth and expansion of its business activities. The retained profits may provide for a part of working capital but the fast growing concerns need a larger amount of working capital than the amount of undistributed profits.

5. Seasonal variations: If the raw material availability is seasonal, they have to be bought in bulk during the season to ensure an uninterrupted material for the production. A huge amount is, thus, blocked in the form of material inventories during such seasons, which give rise to more working capital requirements. Generally, during the busy season, a firm requires larger working capital than in the slack season.

For more info visit lecture notes page no 119

3. Explain about sources of capital /finance under long –term finance.

I.The source of long – term finance are:

1. Issue of shares
2. Issue debentures
3. Loan from financial institutions
4. Retained profits and
5. Public deposits

Issue of Shares: The amount of capital decided to be raised from members of the public is divided into units of equal value. These units are known as share and the

aggregate values of shares are known as share capital of the company. Those who subscribe to the share capital become members of the company and are called shareholders. They are the owners of the company. Hence shares are also described as ownership securities.

2.Issue of Preference Shares: Preference shares have three distinct characteristics. Preference shareholders have the right to claim dividend at a fixed rate, which is decided according to the terms of issue of shares. Moreover, the preference dividend is to be paid first out of the net profit. The balance, if any, can be distributed among other shareholders, that is, equity shareholders. However, payment of dividend is not legally compulsory. Only when dividend is declared, preference shareholders have a prior claim over equity shareholders.

Preference shares may be issued as:

1. Cumulative or Non-cumulative
2. Participating or Nonparticipating
3. Redeemable or Non-redeemable, or as
4. Convertible or non-convertible preference shares.

In the case of cumulative preference shares, the dividend unpaid if any in previous years gets accumulated until that is paid. No cumulative preference shares have any such provision.

Participatory shareholders are entitled to a further share in the surplus profits after a reasonable dividend has been paid to equity shareholders. Non-participating preference shares do not enjoy such rights.

Redeemable preference shares are those, which are repaid after a specified period, whereas the irredeemable preference shares are not repaid.

4. Illustrate the available sources of finance in medium term and short term

Sources of Short-term Finance are:

1. Trade credit
2. Bank loans and advances and
3. Short-term loans from finance companies.

MEDIUM TERM SOURCES OF FINANCE / FUNDS

Preference Capital or Preference Shares

Debenture / Bonds

Lease Finance

Hire Purchase Finance

Medium Term Loans from Financial Institutes, Government, and Commercial Banks

5. Write about Pay-back Period. Describe the advantages and disadvantages of Pay-back Period.

It is the most popular and widely recognized traditional method of evaluating investment proposals. It can be defined as 'the number of years required to recover the original cash outlay invested in a project'. According to Weston & Brigham, "The payback period is the number of years it takes the firm to recover its original investment by net returns before depreciation, but after taxes". According to James. C. Vanhorne, "The payback period is the number of years required to recover initial cash investment.// The pay back period is also called payout or payoff period. This period is calculated by dividing the cost of the project by the annual earnings after tax but before depreciation under this method the projects are ranked on the basis of the length of the payback period. A project with the shortest payback period will be given the highest rank and taken as the best investment. The shorter the payback period, the less risky the investment is the formula for payback period is

$$\text{PayBackPeriod} = \frac{\text{Cashoutlay(or)originalcostofproject}}{\text{Annualcashinflow}}$$

Merits:

1. It is one of the earliest methods of evaluating investment projects.
2. It is simple to understand and to compute.
3. It does not involve any cost for computation of the payback period
4. It is one of the widely used methods in small scale industry sector
5. It can be computed on the basis of accounting information available from the books.

DeMerits:

1. This method fails to take into account the cash flows received by the company after the payback period.

2. It doesn't take into account the interest factor involved in an investment outlay.
3. It is not consistent with the objective of maximizing the market value of the company's shares.
4. It fails to consider the pattern of cash inflows i. e., the magnitude and timing of cash inflows

6. State the ARR Method and advantages and disadvantages of ARR Method.

Accounting (or) Average rate of return method (ARR)

It is an accounting method, which uses the accounting information repeated by the financial statements to measure the probability of an investment proposal. It can be determined by dividing the average income after taxes by the average investment i.e., the average book value after depreciation. According to 'Soloman', accounting rate of return on an investment can be calculated as the ratio of accounting net income to the initial investment, i.e.

$$\text{AverageRate of Return} = \frac{\text{Averagenetincomeaftertaxes}}{\text{AverageInvestment}}$$

$$\text{Averagenetincomeaftertaxes} = \frac{\text{TotalIncomeafterTaxes}}{\text{No.OfYears}}$$

$$\text{AverageInvestment} = \frac{\text{TotalInvestment}}{2}$$

On the basis of this method, the company can select all those projects whose ARR is higher than the minimum rate established by the company. It can reject the projects with an ARR lower than the expected rate of return. This method can also help the management to rank the proposal on the basis of ARR. A highest rank will be given to a project with highest ARR, whereas a lowest rank will be given to a project with lowest ARR.

Merits:

1. It is very simple to understand and calculate.
2. It can be readily computed with the help of the available accounting data.
3. It uses the entire stream of earnings to calculate the ARR.

DeMerits:

1. It is not based on cash flows generated by a project.
2. This method does not consider the objective of wealth maximization
3. It ignores the length of the project's useful life.
4. It does not take into account the fact that the profits can be reinvested

7. Illustrate the NPV method with advantages and disadvantages.

Net present value method (NPV)

The NPV takes into consideration the time value of money. The cash flows of different years are valued differently and made comparable in terms of present values for this the net cash inflows of various periods are discounted using the required rate of return which is predetermined. According to Ezra Solomon, "It is a present value of future returns, discounted at the required rate of return minus the present value of the cost of the investment." NPV is the difference between the present value of cash inflows of a project and the initial cost of the project. According to the NPV technique, only one project will be selected whose NPV is positive or above zero. If a project(s) NPV is less than 'Zero'. It gives negative NPV hence. It must be rejected. If there are more than one project with positive NPV's the project is selected whose NPV is the highest. The formula for NPV is

$$\text{Net Present Value} = \frac{C_1}{(1+K)} + \frac{C_2}{(1+K)} + \frac{C_3}{(1+K)} + \dots + \frac{C_n}{(1+K)}$$

Net Present Value = PVCIF-PVCOF
 PVCIF = Present Value of Cash Inflows
 PVCOF = Present Value of Cash Outflows
 Co- investment C1, C2, C3... Cn= cash inflows in different years.
 K= Cost of the Capital (or) Discounting rate D= Years.

Merits:

1. It recognizes the time value of money.
2. It is based on the entire cash flows generated during the useful life of the asset.
3. It is consistent with the objective of maximization of wealth of the owners.
4. The ranking of projects is independent of the discount rate used for determining the present value.

DeMerits:

1. It is different to understand and use.

2. The NPV is calculated by using the cost of capital as a discount rate. But the concept of cost of capital. If self is difficult to understand and determine.
3. It does not give solutions when the comparable projects are involved in different amounts of investment.
4. It does not give the correct answer to a question whether alternative projects or limited funds are available with unequal lines.

8. Write the advantages and disadvantages of the IRR Method.

Internal Rate of Return Method (IRR)

Merits:

1. It consider the time value of money
2. It takes into account the cash flows over the entire useful life of the asset.
3. It has a psychological appear to the user because when the highest rate of return projects are selected, it satisfies the investors in terms of the rate of return on capital
4. It always suggests accepting projects with a maximum rate of return.
5. It is inconsistent with the firm's objective of maximum owner's welfare.

DeMerits:

1. It is very difficult to understand and use.
2. It involves very complicated computational work.
3. It may not give a unique answer in all situations.

9. Explain the advantages and disadvantages of the Profitability Index Method.

Merits:

1. It requires less computational work than IRR method
2. It helps to accept / reject investment proposals on the basis of value of the index.
3. It is useful to rank the proposals on the basis of the highest/lowest value of the index.
4. It is useful to tank the proposals on the basis of the highest/lowest value of the index.

5. It takes into consideration the entire stream of cash flows generated during the useful life of the asset.

DeMerits:

1. It is somewhat difficult to understand
2. Some people may feel no limitation for index number due to several limitation involved in their competitions
3. It is very difficult to understand the analytical part of the decision on the basis of probability index.

10. Define Capital Budgeting. Illustrate the significance and limitations of Capital Budgeting.

One of the important problems facing the top management in an enterprise is to determine whether the firm should invest funds to acquire fixed assets. In some instances, the goals of the firm will be accomplished by acquisition of the assets while in other situations such action may prove detrimental to the growth of the firm. A firm should acquire fixed assets if the marginal revenue derived there exceeds the marginal cost.

Significance

1] Large Investments

2] Long-term Commitment of Funds

3] Irreversible Nature

4] Long-Term Effect on Profitability

Visit [Capital Budgeting: Nature, Importance, and Limitations - iLearnlot](#) for further info on significance.

Capital budgeting techniques suffer from the following limitations:

- All the technology of capital budgeting presumes that various investment offers with proposals under opinion are mutually exclusive; which may not practically be true in some exceptional circumstances.
- The techniques of capital budgeting require the estimation of future cash inflows and outflows. The future is always uncertain and the data collected for the future may not be exact. Obviously the results based on wrong data may not be good.
- There are certain factors like the morale of the employees, goodwill of the firm, etc., which cannot be correctly quantified but which otherwise substantially influence the capital decision.
- Urgency is another limitation in the assessment of capital investment decisions.
- Uncertainty and risk pose the biggest limitation to the technology of capital budgeting.

11. The cost of a project is Rs.50,000 and annual cash inflows for the next five years are given as follows: 1st year Rs.25,000 2nd year Rs.25,000 3rd year Rs.25,000 4th year Rs.25,000 5th year Rs.25,000 Total 125,000 What is the pay-back period for the project?

1) Investment = 50,000
 cash inflow for 5 years
 25,000 1st year
 25,000 2nd ..
 25,000 3rd ..
 25,000 4th ..
 25,000 5th ..

cash inflow is in uniform
 payback period = $\frac{\text{Investment}}{\text{Cash inflow per annum}}$
 $= \frac{50000}{2500} = 2$
 payback period = 2 years

12. There are two projects X and Y. Each project requires an investment of Rs.20, 000. You are required to Rank these two projects according to pay-back period method from the following information: Net Profits Before Depreciation and After Tax (NPBDAT) for Two projects were given below:

Particulars	Process X (Rs.)	Process Y (Rs.)	Process Z (Rs.)
Materials	225	75	3
Labour	12	3	9
Direct Expenses	3	2	4
Carriage	2	3	1
Works Overheads	189	258	1895

13. A firm is considering two projects each with an initial investment of Rs.20,000 and a life of 4 years. The following is the list of estimated cash inflows after taxes and depreciation.

Years	Proposal 1 (Rs.)	Proposal 2 (Rs.)	Proposal 3 (Rs.)
1	12,500	11,750	13,500
2	12,500	12,250	12,5000
3	12,500	12,500	12,250
4	12,500	13,500	11,750
Total	50,000	50,000	50,000

Predict ARR on the basis of
 (i) Average Capital
 (ii) Original Capital Employeed methods

He may give Scrap value in sem. If given

Average Investment = (Initial Investment + Scrap Value) / 2

(B) Initial Investment = 20,000

Life = 4 years

Year Proposal 1

1 12,500

2 12,500

3 12,500

4 12,500

Total 50,000

ii) original capital

$$ARR = \frac{\text{Net profit after tax} \times 100}{\text{original capital}}$$

(CFAT)
Cash Flow After Tax = 50,000

$$\text{Depreciation} = \frac{\text{Original capital}}{\text{No. of years}}$$

$$= \frac{50,000}{4} = 12,500$$

Net profit after depreciation
and TAX = CFAT - Depreciation

$$= 50,000 - 12,500$$

$$= 37,500 - 12,500$$

$$ARR = \frac{37,500 - 12,500 \times 100}{20,000}$$

$$= 225\%$$

(B) Initial Investment = 20,000

Life = 4 years

Year proposal 1

1 12,500

2 12,500

3 12,500

4 12,500

Total 50,000

i) Average capital

$$ARR = \frac{\text{Annual average net earnings} \times 100}{\text{Average investment}}$$

$$\text{Average investment} = \frac{\text{Original investment}}{2}$$

$$= \frac{20,000}{2} = 10,000$$

$$= \frac{50,000}{2} = 25,000$$

(Scrap value is not given)

Annual average net earnings =

$$\frac{\text{Total income after tax} \times 100}{\text{No. of years}}$$

$$= \frac{50,000}{4} = 12,500$$

$$ARR = \frac{12,500 \times 100}{10,000}$$

$$= 125\%$$

This is for proposal 1 apply same procedure for proposal 2 & proposal 3

Alternate Solution:

13. $\text{invst} > 20\text{k}$ $\Rightarrow \frac{1}{2} \text{ of original inv.}$

4 yrs
Given CF after taxes & dep

(a) ARR on average capital

$\text{ARR} = \frac{\text{Avg. annul profit after tax}}{\text{Avg. investment}}$

Here AAPAT
sum of all
years: 50k
 $\frac{50\text{k}}{4} = 12500$

$$\begin{array}{lll} \text{I} & \text{II} & \text{III} \\ = \frac{12500}{10000} \times 100 & = \frac{125000}{10000} \times 100 & = \frac{125000}{10000} \times 100 \\ = 125\% & = 125\% & = 125\% \end{array}$$

b) original capital Employed methods

$$\text{ARR} = \frac{\text{Avg. ann. profit after tax}}{\text{original invest}}$$

$$\begin{array}{lll} \text{I} & \text{II} & \text{III} \\ = \frac{12500}{20k} & = \frac{12500}{20k} & = \frac{12500}{20k} \\ = 62.5\% & = 62.5\% & = 62.5\% \end{array}$$

14. Company has an investment opportunity costing Rs.50,000 with the following expected net cash flows after taxes and before depreciation.

Years	Net Cash Inflows	P.V. of Rs. 1 @ 10% D.F.
1	20,000	0.909
2	15,000	0.826
3	25,000	0.751
4	10,000	0.683

Using 10% as the cost of capital determine

- (i) Pay-back Period
- (ii) Net Present Value @10% D.f. and
- (iii) Profitability Index @10% D.f.

② payback period when cash inflow is uneven

$$\text{paybacks } E + \frac{B}{C}$$

E = year preceding to the year of recovery

B = Amount left to be recovered

\Rightarrow cash inflow during the final year of recovery
 cash inflow till 3rd year = $20000 + 15000 + 25000 = 60000$
 from above the investment 50,000 is recovered by
 3rd year

$$\text{cash inflow till 3rd year} = 20000 + 15000 + 25000 = 60000$$

$$\text{payback period} = E + \frac{B}{C} = 2 + \frac{50000 - 35000}{25000}$$

$$= 2 + \frac{15000}{25000}$$

$$= 2 + 0.6$$

$$\approx 2.6 \text{ years}$$

14. a) Pay back period

initial layout = 50,000

cash inflow for 4 yrs

$$= 20K + 15K + 25K + 10K$$

$$= 70K$$

Balance outlay

50k is recovered btw 2 & 3 yrs

sum of 35k recovered by 2nd yr

15k balance by 3rd

$$\text{Payback} = 2 + \frac{15,000}{25,000} \text{ (inflow in 3rd yr)}$$

$$= 2 + 0.6 = \underline{\underline{2.6 \text{ yrs}}}$$

b) NPV @ 10% DF

PV

$$1. \quad 18180 \quad (20K \times 0.909)$$

$$2. \quad 12390 \quad (15K \times 0.826)$$

$$3. \quad 18775$$

$$4. \quad 6830$$

$$\underline{\underline{256175}}$$

NOW

$$NPV = 56175 - 50000$$

$$= \underline{\underline{-38825}}$$

c) Profitability index @ 10% DF

$$PI = \frac{PV \text{ of cash inflow}}{PV \text{ of cash outflow}} - ?$$

(Q) iii) profitability index @ 10% DF

Year	Net cash inflow	P.V @ 10% DF	I.V @ 10% DF
1	20,000	0.909	18180
2	15,000	0.826	12390
3	20,000	0.751	18775
4	10,000	0.638	6830
			56175

outflow / investment = 50000

$$P.II = \frac{P.V \text{ of cash inflow}}{P.V \text{ of cash outflow}}$$

$$= \frac{56176}{50000}$$

$$P.II = 1.124 \%$$

15. A project involves initial outlay of Rs. 1,29,600. Its working life is expected to be 3 years. The cash inflows are likely to be as follows: year 1 Rs. 64,000; Year 2 Rs. 56,000 and Year 3 Rs. 24,000. Compute the internal rate of return.

(ii) Net present value @ 10% D.F. $\left(\frac{1}{(1+0.1)^t}\right)$

Total present value - cash outflow

$$\Rightarrow \underbrace{18180 + 12390 + 18775 + 6830}_{\text{Total present value}} = \underline{\underline{56175}}$$
$$= 56175 - 50,000 = \underline{\underline{6175}}$$

(iii) Probability index @ 10% D.F.

$$PI = \frac{\text{Present value of cash inflow}}{\text{Initial cash outlay}}$$

$$= \frac{56175}{50,000} = \underline{\underline{1.1235}}$$

(15) cost = 1,29,600

time = 3 yrs

<u>Yrs</u>	1	2	3
Int'lous	64000	56000	24000 ..

Internal rate of return

$$IRR = L + \frac{P_1 - 0}{P_1 - P_2} \times D$$

fake payback period

$$\frac{\text{initial investment}}{\text{avg cash inflow}} = \frac{1,29,600}{48,000}$$

fake payback period $\leftarrow 2.7$

$L=5$

<u>Yr</u>	<u>Cash inflow</u>	<u>PV factor</u>	<u>Present value</u>	<u>JPP</u>	<u>Pvat</u>	<u>Current Value</u>
1	64000	0.952	60928	0.948	60952	
2	56000	0.907	50792	0.889	49784	
3	24000	0.863	20912	0.839	2013L	<u>$P_1 = 132432$</u>

$$IRR = 5 + \frac{132432 - 129600}{132432 - 130272} \times 1$$

$$= 5 + 1.31$$

$$= 5 + 1.31$$

$$= 6.31\%$$

16. A Company has an estimated Life of 4 years and an investment opportunity costing Rs.2,50,000 with the following expected Net Cash Flow After Taxes and Before Depreciation.

Years	Net Cash Inflows	P.V. of Rs. 1 @ 24% D.F.
1	1,20,000	0.806
2	90,000	0.650
3	1,60,000	0.524
4	30,000	0.423

Using 24% as the cost of capital predict the following:
(i)Net Present Value @24% D.f.
(ii)Profitability Index @24%D.f
(iii)Pay-back Period

(16)

Time - 4 yrs

Cost - 2,50,000

(17)

(i) Net present value @ 24% / 1.07

 $NPV = \text{total present value} - \text{Cash outflow}$

$$= (96720 + 58500 + 83840 + 12690) - 2,50,000$$

$$= 25,1750 - 25,0000$$

$$\underline{= 1750}$$

(ii) Profitability Index

$$PI = \frac{\text{total present value}}{\text{Cash outflow}}$$

$$= \frac{251750}{250000} = 1.007$$

(iii) Pay back period

$$12000 + 90000 = 2,10000$$

$$2,10,000 + \frac{40,000}{180,000}$$

4

2 + $\frac{1}{4}$ year2.25 yrs

17. A Company has an investment opportunity costing Rs. 40,000 with the following expected net cash flow after taxes and before depreciation.

Years	Net Cash Inflows	P.V. of Rs. 1 @ 10% D.F.	P.V. of Rs. 1 @ 15% D.F.
1	7,000	0.909	0.870
2	7,000	0.826	0.756
3	7,000	0.751	0.658
4	7,000	0.683	0.572
5	7,000	0.621	0.497
8	8,000	0.564	0.432
7	10,000	0.513	0.376
8	15,000	0.467	0.327
9	10,000	0.424	0.284
10	4,000	0.386	0.247

Using 10% as the cost of capital compute:
 (i) Net Present Value @10% D.F. and 15% D.F.
 (ii) Profitability Index @10% D.F.
 (iii) Pay-back Period
 (iv) IRR @10% D.F. and 15% D.F.

a)

Years	Cash Inflow	Total Cash Inflow
1	7,000	7,000
2	7,000	14,000
3	7,000	21,000
4	7,000	28,000
5	7,000	35,000
6	8,000	43,000
7	10,000	53,000
8	15,000	68,000
9	10,000	78,000
10	4,000	82,000

The initial investment of Rs.40,000 will be recovered between the years 5 and 6. The pay back period would be a fraction more than 5 years. The sum of Rs.35,000 is recovered by the end of the 5th year. The balance Rs.5,000 is needed to be recovered in the 6th year. In the 6th year cash inflow is Rs.8,000. The pay back fraction therefore $(5000 / 8000)$ or 0.625.

\therefore Pay back period is 5.625 years.

b) Net Present Value

Year	Inflow (Rs.)	Present value factor (10%)	Present value (Rs.)
1	7,000	0.909	6,363
2	7,000	0.826	5,782
3	7,000	0.751	5,257
4	7,000	0.683	4,781
5	7,000	0.621	4,347
6	8,000	0.564	4,512
7	10,000	0.513	5,130
8	15,000	0.467	7,005
9	10,000	0.424	4,240
10	4,000	0.386	1,544
Total present value of inflows			48,961

∴ Net present value at 10% discounting factor

$$\text{Rs.}(48,961 - 40,000) = \text{Rs.}8961.$$

c) Profitability Index**(c) Profitability Index:**

$$\text{Profitability Index} = \frac{\text{PV of cash inflow}}{\text{PV of cash outflow}}$$

d) Internal Rate of Return

$$\frac{40,000}{(82,000 \div 10)} = 4.878$$

		Discount factor 14%		Discount factor 15%	
Year	Annual Cash Inflows	PV factor	Present Value	PV factor	Present Value
1	7,000	0.877	6,139	0.870	6,090
2	7,000	0.769	5,383	0.756	5,292
3	7,000	0.675	4,725	0.658	4,606
4	7,000	0.592	4,144	0.572	4,004
5	7,000	0.519	3,633	0.497	3,479
6	8,000	0.456	3,648	0.432	3,456
7	10,000	0.400	4,000	0.376	3,760
8	15,000	0.351	5,265	0.327	4,905
9	10,000	0.308	3,080	0.284	2,840
10	4,000	0.270	1,080	0.247	988
		Total PV	41,097		39,420
		Less: Initial Investment	40,000		40,000
			1,097		- 580

$$= 5\% / 9,561 * 8,961 = 4.67$$

$$= 10 + 4.67 = 14.67\%$$

or, IRR = 14.65% i.e., the rate at which NPV is zero.

(17)

$$\text{Cost} = 40,000$$

(i) Net present value @ 10% DF & 15% DF

$$NPV @ 10\% = 48961 - 40,000 =$$

8961 — Accept

$$NPV @ 15\% = 39420 - 40,000$$

-580 — reject

(ii) Profitability index @ 10%

$$\frac{\text{total present value}}{\text{cash outflow}} = \frac{48961}{40,000} =$$

1.224 — Acpt

(iii) Pay-back period

$$5 \text{ yrs} - 7000 \times 5 + \frac{8}{8}$$

$$0.625$$

$$= \underline{\underline{5.625 \text{ yrs}}}$$

18. What is NPV & IRR Compare and contrast the two methods of evaluating capital budgeting proposals.

Net present value (NPV) is the difference between the present value of cash inflows and the present value of cash outflows over a period of time. The IRR for an investment proposal is that discount rate which equates the present value of cash inflows with the present value of cash outflows of an investment. The IRR is also known as cutoff or handle rate. It is usually the concern's cost of capital.

19 What is meant by discounting and time value of money? How is it useful in capital budgeting?

20 What is meant by discounting and time value of money? How is it useful in capital budgeting?

PART C

1 List out the essentials of a budget.

Essentials of an Effective Budgeting:

- Sound Forecasting
- An Adequate, Planned and Reliable Accounting System
- Efficient Organization
- Formation of Budget Committee
- Cleanly defined Business Policies
- Availability of Standard Information
- Support of Top Management
- Good Reporting System
- Motivation

2 Compare relation budget with budgeting

A **budget** is a financial and quantitative statement of an operational plan related to a specific time period, which is to be followed during the budgeted period in order to achieve specific financial objectives of an organization.

Budgeting

Budgeting refers to the process of preparation, implementation and operation of budgets. It involves formulation of operational plans for a given future period and expressing it in monetary terms.

3 Show the characteristics of good budgeting

Characteristics Of Good Budget

- Long range goal and possible emergencies.
- Repayment of due bills, debts and notes.
- Commitments both regular (as mortgage payment) and irregular (such as taxes)
- Miscellaneous, overlooked items, unexpected expenses and extra spending.
- Current living expenses such as food, clothing, allowance and transportation.
- Satisfaction of near future goals.

4 List out the essentials of budgetary control.

- **1. Sound forecasting:**
 - The estimates for the future needs of business should be precise and accurate.
 - A scientific forecasting system gives adequate and reliable data for budgeting.
- **2. Goal orientation:**
 - Budgets must directly flow from objectives of the enterprise, and goals of budgetary control must be clearly defined.
- **3. Proper recording system:**
 - Sound accounting procedures should be allowed for proper recording of actual operations. Unless the actual performance is accurately recorded and quickly reported; the whole structure of budgeting will fall. Budgeting is greatly helped if there is also the system of standard costing in use.
- **4. Participation:**

- All individuals responsible for achieving results should be consulted in the formulation of budgets. No system of budgetary control can succeed without the mutual understanding of superiors and subordinates. Participation assures full co-operation and commitment for making budgets successful. Participation also makes budgets realistic and workable.
- **5. Top Management support:**
- Since budgeting highlights inefficiencies there is bound to be resistance. This makes it more necessary that top management should believe in the importance of budgetary control. Thus the overall budgets must be set and approved at the chief executive level.
- **6. Flexibility:**
- Budgets should be flexible. If actual business conditions differ from what was expected, it should be possible to recast the budget quickly.
- **7. Enforce timeliness:**
- Budgets must be prepared so as to be ready before the period to which they relate. Moreover sufficient time should be allowed for the budget programme to develop and reach near perfection.
- **8. Efficient organization:**
- A good organisation structure is necessary for success in budgeting. There should be fixed responsibility centres, budget committee and budget controller.
- **9. Proper Co-ordination:**
- The budget plans must be properly co-ordinated in order to eliminate bottlenecks. Individual budgets should be co-ordinated with one another.
- **10. Sound administration:**
- Budgets cannot replace good management. Budgets should be administered efficiently by responsible executives.
- **11. Constant Review:**
- Constant review of the budgets is necessary so as to prevent them from degenerating into license for spending the full budgeted amount even though it may not be necessary.
- **12. Reward and punishment:**

- The concerned employees should be suitably rewarded for performance as per the budget. But slack employees should not be allowed to go unpunished.
- **13. Results take time:**
- The budgetary control is an efficient tool to control performance. But it requires time to show results. Those who administer budgetary control should have high degree of knowledge and experience in the field
- **NOTE ONLY SUBHEADINGS ARE SUFFICIENT**

5 What are the objectives of budgetary control?

Objectives of Budgetary Control:

1. Cost Control – The main aim of budgetary control is to control the production and other costs with maximum output.
2. Coordination – Establishing coordination amongst various departments is the primary objective of budgetary control.
3. Control on Various Activities – Various activities are controlled through budgetary control for the attainment of budget estimates.
4. Help to Administrators – Budgetary control helps administrations in smooth running of the business. It can be used in production, administration, sales and in estimating financial requirements.

6 List out the any five steps in budgetary control.

1 Developing Budgets

The first stage in budgetary control is developing various budgets. It will be necessary to identify the budget centers in the organization and budgets will have to develop for each one of them.

Thus budgets are developed for functions like purchase, sale, production, manpower planning as well as for cash, capital expenditure, machine hours, labor hours and so on.

Utmost care should be taken while developing the budgets. The factors affecting the planning should be studied carefully and budgets should be developed after a thorough study of the same.

2. Recording Actual Performance

There should be a proper system of recording the actual performance achieved. This will facilitate the comparison between the budget and the actual. An efficient accounting and cost accounting system will help to record the actual performance effectively.

3. Comparison of Budgeted and Actual Performance

One of the most important aspects of budgetary control is the comparison between the budgeted and the actual performance.

The objective of such a comparison is to find out the deviation between the two and provide the base for taking corrective action.

4. Corrective Action

Taking appropriate corrective action based on the comparison between the budgeted and actual results is the essence of budgeting.

A budget is always prepared for the future and hence there may be a variation between the budgeted results and actual results.

There is a need to investigate the same and take appropriate action so that the deviations will not repeat in the future. Responsibilities can be fixed on proper persons so that they can be held responsible for any such deviations.

NOTE SUBHEADINGS ARE ENOUGH

7 Write any five advantages of budgetary control.

Benefits of Budgetary Control

1. Budgeting facilitates the planning of various activities and ensures that the working of the organization is systematic and smooth.
2. Budgeting is a coordinated exercise and hence combines the ideas of different levels of management in the preparation of the same.
3. Any budget cannot be prepared in isolation and therefore coordination among various departments is facilitated automatically.
4. Budgeting helps planning and controlling income and expenditure to achieve higher profitability and also acts as a guide for various management decisions.
5. Budgeting is an effective means for planning and thus ensures sufficient availability of working capital and other resources.
6. It is extremely necessary to evaluate the actual performance with predetermined parameters. Budgeting ensures that there are well-defined parameters and thus the performance is evaluated against these parameters.
7. As the resources are directed to the most productive use, budgeting helps in reducing the wastages and losses.

8 Illustrate the five demerits of budgetary control.

1. Danger of inaccurate estimates:

Budgets are based on estimates and they involve forecasting of future events. The effectiveness of budgetary programme depends to a great extent on the accuracy with which estimates are made.

2. Danger of rigidity:

In practice, budgets often tend to become rigid. It becomes difficult to make changes in budgets to suit the changing circumstances.

Budgetary limits are regarded as final and little scope is left for initiative and judgment on the part of the subordinate staff. Inflexibility makes budgets unrealistic and invalid under the changed conditions.

3. Human factor:

Budgets need the willing co-operation and active participation of people working in the enterprise. It is not always possible to get the voluntary cooperation and support from all in the construction and implementation of budgets.

4. Expensive:

It requires a lot of expenditure in terms of money, time and effort. A considerable time is needed in learning effective budgeting. Budgets cannot give results overnight and great patience is required on the part of the management. Management may lose interest and confidence in budgeting, where quick results are expected.

5. Hide Inefficiencies:

Budgets are sometimes used to hide inefficiencies. Budgets tend to grow from the precedent. Many items which cease to be relevant are continued because of their use in previous budgets.

6. Departmental Outlook:

Budgeting fails when departmental goals are allowed to supersede enterprise objectives. Functional budgets may not reflect the overall goals of the organisation in their proper perspective.

Similarly, situation may demand that the departmental manager should not cross budget limit in the interest of overall business objectives. However, in this enthusiasm and zeal to keep within budget limits, a departmental manager may overlook the enterprise goals.

7. Danger of over budgeting:

Budgets are often so detailed that they become cumbersome, meaningless and unduly expensive. Over budgeting usually reflects the superior manager's desire to maintain control. However, to derive full benefits of budgetary control, over budgeting should be avoided and subordinates should be adequately trained to read and administer budgets in the proper manner.

8. No substitute for efficient management:

No doubt, budgeting is of a great help in arriving at right decisions. But budget does not replace management and administration. It is a servant and not a master. It opens up vistas but someone has to read it, interpret it and implement it.

9. Lack of cost-benefit analysis:

Budget making is a tempting exercise. It can be effective only when there is a correlation between the cost of the system and the benefits to be derived from it.

NOTE SUBHEADINGS ARE ENOUGH

9 Explain the importance of flexible budget.

Flexible budgeting is very useful and significant in modern times.

- It is an important tool of cost control.
- It provides for necessary allowance to be made in the budget figures and suggests what the figure should have been with the level of activity actually attained.
- It is very useful in cost control where yearly forecasts for overheads cannot be made with precision.
- A flexible budget should be prepared for one year and then, for different control periods within a year, separate fixed budgets can be prepared. This procedure makes possible to control the activity effectively within the budgeted period.

- For the departments where the nature of activities is flexible (for example sales department), the importance of flexible budgeting is obvious.
- A flexible budget is virtually a dynamic tool for cost control. It makes possible to estimate costs for any level of activity.
- It facilitates the comparison of actual results with the budgeted figures.

10 Demonstrate difference between fixed budget and Performance budget.

Fixed Budget is static in nature while Flexible Budget is dynamic. Fixed Budget operates in only one activity level, but Flexible Budget can be operated on multiple levels of output. Fixed Budget is based on the assumption, whereas Flexible Budget is realistic. Fixed Budget is inelastic, as it cannot be re-casted as per the actual output.

- Definition. Performance-Based Budgets are budgets that are focused on outcomes, and targets that are set for the organizations.
- Example. Performance-Based budgeting involves setting targets in order to meet the objectives of the organization, at large.

11 State the meaning of cash budget.

A Cash budget represents the expected future cash flow of an organization over a defined period of time. It is an estimate of the cash receipts expected in the future over the budget period, the expenditure to be incurred in cash, and finally, the cash balance with the company at the end of the period.

12 List out the advantages of cash budget.

1. You can avoid debt.

If all you're allowed to do is spend the cash you have, then you avoid debt. Once you run out of cash, you can no longer spend anything. That does mean you must set aside cash for emergency situations, otherwise you may find yourself in an uncomfortable situation. If your hot water heater goes

out and you don't have enough cash available to replace it, then you'll be taking cold showers until you do.

2. You are forced to budget better.

A cash-only budget forces households and businesses to budget better. There are no "outs" with this type of budget. You either make ends meet and live comfortably or you don't and suffer the consequences. It is a process which requires frequent attention to details, tracking specific spending habits, and proactive management to ensure that there is always enough money available to take care of every need.

3. You become more resourceful.

When you're using a cash budget, you must find efficiencies that you may not seek out if you are using other financial resources and tools. You must find ways to save cash, which means you must eliminate all waste from your budget. Businesses find that when they are watching every penny (or equivalent) that comes in and out with their cash flow, they can control spending better and find new ways of growth. You get to see where all your cash is going when you use this type of budget.

4. You stay in-touch with reality.

People don't look at their bills because it makes them feel like they don't need to pay it. With a cash budget approach, you're given a heavy dose of reality. You must look at your financial statements, your bills, your obligations, and every expenditure that you make. There is no other way to determine if you're overspending on purchases. Because your supply of cash is limited, overspending limits your resource access. You're forced out of the position of being able to purchase something which you may not be able to afford at the moment.

5. You can quickly identify potential deficits.

When you are operating off of a cash budget, then you can quickly determine if you'll have enough cash to meet obligations. If not, then you'll be able to trigger a corrective action to ensure the budget estimates can be met. Being cash-only does not limit the ability to borrow money from a business perspective. It's better to borrow to pay taxes or meet a monthly payroll, especially if the cash shortfall is a temporary issue.

13 State the factors which are considered for preparation of production budget

there are three basic factors which govern the quantity to be manufactured during a given period. They are raw material supply, labor supply and plant capacity. For this purpose, separate budgets are developed for example, materials budget, labor budget and plant capacity utilization budget.

14 Briefly explain the meaning and advantages of master budget

The master budget reveals how much your company is earning and spending as a whole, and shows whether the business is in good or negative financial standing. Advantage: Master Budget Equals Masterly Planning Another advantage of having a master budget is the ability to identify problems and plan ahead.

15 Show the meaning and characteristics of performance budget.

The concept of performance budgeting is used mainly in the Government and public sector undertakings. It projects the Government activities and expenditure thereon for the budget period. It shows budgeted expenses classified by functions, activities and unit cost, if possible

16 List out the uses of performance budget.

- 1) It presents clearly the purposes and objectives for which the funds are sought and the programmes are designed in...
- (2) It helps in better understanding and better review of the budget by the legislators. ADVERTISEMENTS:
- (3) It improves the formulation of the budget and facilitates decision-making at all levels of government.
- (4) It enhances accountability and provides an additional tool to management in financial operations.

17 Explain any five requisites for successful budgetary control system.

Essentials of effective budgetary control are: 1. sound forecasting 2. goal orientation 3. proper recording system 4. participation 5. top management support 6. flexibility 7. enforce timeliness 8. efficient organization 9. proper co-ordination 10. sound administration 11. constant review 12. reward and punishment and 13. results take time!

1. Sound forecasting:

The estimates for the future needs of business should be precise and accurate

A scientific forecasting system gives adequate and reliable data for budgeting.

2. Goal orientation:

Budgets must directly flow from objectives of the enterprise, and goals of budgetary control must be clearly defined.

3. Proper recording system:

Sound accounting procedures should be allowed for proper recording of actual operations. Unless the actual performance is accurately recorded and quickly reported; the whole structure of budgeting will fall. Budgeting is greatly helped if there is also the system of standard costing in use.

4. Participation:

All individuals responsible for achieving results should be consulted in the formulation of budgets. No system of budgetary control can succeed without the mutual understanding of superiors and subordinates. Participation assures full co-operation and commitment for making budgets successful. Participation also makes budgets realistic and workable.

5. Top Management support:

Since budgeting highlights inefficiencies there is bound to be resistance. This makes it more necessary that top management should believe in the importance of budgetary control. Thus the overall budgets must be set and approved at the chief executive level.

6. Flexibility:

Budgets should be flexible. If actual business conditions differ from what was expected, it should be possible to recast the budget quickly.

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Budgets must be prepared so as to be ready before the period to which they relate. Moreover sufficient time should be allowed for the budget programme to develop and reach near perfection.

8. Efficient organization:

A good organisation structure is necessary for success in budgeting. There should be fixed responsibility centres, budget committee and budget controller.

9. Proper Co-ordination:

The budget plans must be properly co-ordinated in order to eliminate bottlenecks. Individual budgets should be co-ordinated with one another.

10. Sound administration:

Budgets cannot replace good management. Budgets should be administered efficiently by responsible executives.

11. Constant Review:

Constant review of the budgets is necessary so as to prevent them from degenerating into license for spending the full budgeted amount even though it may not be necessary.

12. Reward and punishment:

The concerned employees should be suitably rewarded for performance as per the budget. But slack employees should not be allowed to go unpunished.

13. Results take time:

The budgetary control is an efficient tool to control performance. But it requires time to show results. Those who administer budgetary control should have high degree of knowledge and experience in the field.

18 State the steps which are involved in zero based budgeting.

Zero Based Budgeting Steps

1) Identification of a task

2) Finding ways and means of accomplishing the task

3) Evaluating these solutions and also evaluating alternatives of sources of funds

4) Setting the budgeted numbers and priorities

19 State any five advantages of zero based budgeting.

Zero Based Budgeting Advantages

1. Accuracy: Against the regular methods of budgeting that involve just making some arbitrary changes to the previous year's budget, this method makes every department relook each and every item resulting in cash flow and compute their operation costs. This, to some extent, helps in cost reduction as it gives a clear picture of costs against the desired performance.
2. Efficiency: This helps in the efficient allocation of resources (department-wise) as it does not look at the historical numbers but looks at the actual numbers
3. Reduction in redundant activities: It leads to the identification of opportunities and more cost-effective ways of doing things by removing all the unproductive or redundant activities.
4. Budget inflation: Since every line item is to be justified, a zero-based budget overcomes the weakness of incremental budgeting of budget inflation.
5. Coordination and Communication: It also improves coordination and communication within the department and motivates employees by involving them in decision-making.

20 Write any four differences between fixed budget and flexible budget.

Fixed Budget	Flexible Budget
A fixed budget is a budget that remains static irrespective of the activity level.	A flexible budget is a budget that changes as per the necessity of activity level.
The fixed budget doesn't change as per the fluctuations of business.	Flexible budget changes as per the fluctuations of business;
A fixed budget is always static.	A flexible budget is very dynamic.
Pretty simple.	Quite complex.
It is easy to prepare a fixed budget.	It is quite tough to prepare a flexible budget since one needs to prepare for all situations.

The dissonance between the actual level and the budgeted level is quite high since there is no similarity in activity level	The dissonance between the actual level and the budgeted level is quite low.
Comparison is difficult since the activity levels are different at the actual level and budgeted level.	Comparison is quite easy since the activity levels are quite similar.
Pretty rigid, no fluctuation is taken into account.	Quite flexible, almost every fluctuation is taken into account.
A fixed budget is mostly estimated on assumptions and anticipations.	A flexible budget is prepared with realistic situations in mind.