Qst.1 "Ratio analysis is only a technique for making judgments and not a substitute for judgements." Examine.

Ans: The stakeholders of a firm viz., shareholders, creditors, suppliers, managers, employees, tax authorities, government and others are interested broadly in knowing what the firm is doing and whether the firm is financially sound or otherwise. The information requirement of each of these stakeholders may be different. Trade creditors and short term lenders are interested knowing the ability of the firm to meet short term liabilities, whereas term lending institution and banks are interested in the long term survival of the firm. Similarly, others stakeholders may have other information requirements. Before introducing you to the concept of financial analysis let us recaptulate on the various types of financial statements, as all the variables used in ratio analysis are taken from these statements.

1. **Profit & Loss A/C (P&L A/C)**: The income statement or trading and profit and loss account shows the various variables regarding expenses and revenue and the aggregate difference between these two as either net profit or net loss.

2. **Balance Sheet**: Balance sheet is a statement which shows the financial position of a firm on a particular date, it summarises the assets owned by the business and the claim of the owners and creditors against these assets in the form of liabilities as on the date of the statement.

3. **Profit & Loss Appropriation A/C**: This statement which is also known as profit and loss appropriation account is a link between P&L A/C and Balance sheet. The net profit shown in the P&L A/C is transferred to the balance sheet after appropriation though this statement. Retained earnings are the accumulated excess of earnings over losses and dividends.

4. **Fund Flow Statement**: This statement shows the sources of funds from which additional funds were derived and the use (application) of these funds.

5. **Cash Flow Statement:** This statement depicts the change in cash position from one period to another. Financial statements are the means of providing general information regarding operational results and the financial position of a business firm. These statements do not reveal significant information such as efficiency of management strength and weakness of the firm, potential of further progress etc. In order to extract meaningful information these statements need to be analysed and interpreted for specific purposes. **Ratio Analysis** Analysis of financial statements is the systematic numerical calculation of the relationship between one fact with the other to measure the profitability, operational efficiency and the growth potential of the business. The main objectives of financial statement analysis and interpretation are as follows:

- Measuring financial soundness
- Judging solvency
- Measuring profitability
- Judging operational efficiency
- Indicating trends
- Assessing growth potential
- Inter firm and intra firm comparison.

A ratio is an arithmetical relation between two figures or variables. Financial ratio analysis is a study of ratios between various items or group of items in financial statements. Financial ratio analysis is an analytical tool for measuring the performance of an organisation. Ratio analysis is primarily used to analyse past performance and based on this make future projections.

Users of Financial Ratios

Financial ratio analysis is the process of establishing relationship between the variables of the balance sheet and profit and loss account, in order to find out the strength and weakness of the firm. Ratio analysis is undertaken by the various stock holders in the firm viz. trade creditors, suppliers of long-term debt, investors and the

management itself. Trade Creditors are interested in the firm's ability to meet claims in the short run. Their analysis will therefore, be confined to the firm's liquidity position in the short run. Suppliers of long-term debt, on the other hand are more concerned with long-term solvency and survival. They analyse the firm's profitability over time, its ability to generate cash, its ability to repay interest and the principle amount. They also analyse the capital structure. Long-term suppliers of credit do analyse the historical financial statements but their main focus is on projected or proforma financial statement to analyse its future solvency and profitability. Investors are interested in the firm's earnings and how these earnings are used. They concentrate on the firm's present and future profitability. They are also interested in the firm's financial structure to the extent that it influences the firm's earnings ability and risk.

The management of the firm would be interested in every aspect of the financial ratio analysis as, this helps them assess how efficiently and effectively the firm's resources are being used.

Nature of Ratio Analysis

Ratios are used as a bench mark for evaluating the financial position and performance of a firm. Accounting figures presented in the financial statements would convey some meaning only if they are seen in relation to the other variables. Ratios help to other summarise large quantities of financial information (data). Through ratio analysis one can make a qualitative judgment. The ratios basically reflect a quantitative relationship among different variables.

Standards of Comparison

A ratio in itself would not provide any useful information, until and unless the ratios are compared with some standard. Standards of comparison may consist of: Past ratios, i.e., ratios calculated from the past financial statements of the same firm. Competitor's ratios, i.e., ratios of some selected firms preferably the firms having similar turnover. Another approach is to compare the firm's ratios with that of the market leader. Industry ratios, i.e., the average ratios of the industry to which the firm belongs Projected ratios, i.e., ratios calculated using the projected or proforma financial statements of the same firm.

Qst.2 Explain the concept of capital budgeting. Under what circumstances may NPV and IRR give conflicting recommendations? Which criteria should be followed in such circumstances and why?

Ans: concept of capital budgeting: Capital budgeting is the process of identifying and selecting investments in the long lived assets or the assets which are expected to produce benefits over more than a year. Business is all about exploring avenues for growth and innovation, which requires continuous evaluation of possible investment opportunities. Capital budgeting to a large extent depends upon the corporate strategy.

Stages in Capital Budgeting Process

There are four stages in the capital budgeting process:

Stage 1: Investment Screening and Selection

- Projects consistent with the corporate strategy are identified by the various functional units (production, marketing, research and development) of the firm. Once the projects are identified, projects are evaluated and screened by an investment committee comprising of senior managers. The main focus of this process is to estimate how the investment proposal will affect the future cash flows of the firm and hence the value of the firm.

Stage 2: Capital Budgeting Proposal

- Once the investment proposal survives the scrutiny of the investment committee, a capital budget is proposed for the project. The capital budget lists the amount of investment required for each investment proposal. This proposal may start with estimates of expected revenue and costs. At a later stage inputs from marketing, purchasing engineering, production and accounting and finance functions are put together.

Stage 3: Budgeting Approval and Authorisation Projects included in the capital budgets are authorised, which allows further fact gathering research and analysis as a result of which the capital budget proposal is refined and put up for approval. Theapproval allows the expenditure on the project. In some firms the projects are authorised and approved concurrently, where as in others a project is first authorized so that the estimates can be refined. It is then approved. Large expenditures require formal authorisation and approvals whereas capital expenditures within a certain limit can be approved by the managers themselves.

Stage 4: Project Tracking • Once the project is approved the next step is to execute it. The concerned managers periodically report the progress of the project as well as any variances from the plan. The managers also report about time and cost overruns. This process of reporting is known as project tracking.

Net Present Value (NPV) Method: In this method all cash flows attributable to a capital investment project are discounted by a chosen percentage e.g., the firms weighted average cost of capital to obtain the present value of the future cash flows. If the present value of the future cash flows is higher than the present value of the investments the proposal is accepted else rejected.

In order to arrive at the net present value the present value of the future cash flows is deducted from the initial investment.

$$NPV = \frac{C_1}{(1+k)} + \frac{C_2}{(1+k)^2} + \frac{C_3}{(1+k)^3} + \ldots \frac{C_n}{(1+k)^n} - C_0$$

$$NPV = \sum_{t=1}^{n} \frac{C_n}{(1+k)^t} - C_0$$

Where C_0 = initial investment (cash outflows)
C_t = Cash flows occurring at time t
K= discount rate

Example : A firm can invest Rs. 10,000 in a project with a life of three years.

Year	Rs.
1	4,000
2	5,000
3	4,000

The cost of capital is 10% p.a should the investment be made?

Solution:

Firstly the discount factors can be calculated based on Rs. 1 received in with r rate of interest in 3 year

$$\frac{1}{(1+r)^n}$$

Year 1	$=\frac{\text{Re.}1}{(1.10/100)}$	$=\frac{\text{Re.}1}{(1.10)}$	$=0.909$
Year 2	$=\frac{\text{Re.}1}{(1+10/100)^2}$	$=\frac{\text{Re.}1}{(1.10)^2}$	$=0.826$
Year 3	$=\frac{\text{Re.}1}{(1+10/100)^3}$	$=\frac{\text{Re.}1}{(1.10)^3}$	$=0.751$

In this chapter, the tables given at the end of the block are used wherever possible. Obviously, where a particular year or rate of interest is not given in the tables it will be necessary to resort to the basic discounting formula.

Year	Cash flow Rs.	Discount factor	Present value Rs.
0	10,000	1,000	10,000
1	4,000	0.909	636
2	5,000	0.826	4130
3	4,000	0.751	3.4
			NPV = 770

Since the net present value is positive, investment in the project can be made.

Internal Rate of Return (IRR) Method

Internal rate of return is a percentage discount rate used in capital investment appraisals which makes the present value of the cost of the project equal to the future cash flows of the project. It is the rate of return which equates the present value of anticipated net cash flows with the initial outlay. The IRR is also defined as the rate at which the net present value is Zero. The test of profitability of a project is the relationship between the internal rate of return (%) of the project and the minimum acceptable rate of return. The IRR can be determined by solving the followingequation for r:

$$C_0 = \frac{C_{1=}}{(1+r)} + \frac{C_2}{(1+r)^2} + \frac{C_3}{(1+k)^3} + \ldots \frac{C_n}{(1+r)^n}$$

$$C_0 = \sum_{t=1}^{n} \frac{C_t}{(1+r)^t} - C_0 = 0$$

The IRR equation is the same as the one used for the NPV method. The only difference is that in the NPV method, the required rate of return k is known while in the IRR method the value of r has to be determined at which the net present value becomes zero.

A project is accepted if the internal rate of return is higher than the cost of capital.

Example: A company has to select one of the following two projects:

	Project A	Project B
Cost	11000	10000
Cash inflows		
Year 1	6000	1000
2	2000	1000
3	1000	2000
4	5000	10000

Using the internal rate of return method suggest which project is preferable.

Solution:

The cash inflow is not uniform and hence the internal rate of return will have to be calculated by the trial and error method. In order to have an approximate idea about such a rate, it will be better to find out the Factor. The factor reflects the same relationship of investment and cash inflows in case of payback calculation:

F	I/C
Where F	Factor to be located
I	Original investment
C	Average cash inflow per year
The factor in case of Project A would be:	The factor in case of Project B would be:
$F = \frac{11,000}{3,500} = 3.14$	$F = \frac{10,000}{3,500} = 2.86$

The factor thus calculated will be located in the table given at the end of the unit on the line representing number of years corresponding to estimated useful life of the asset. This would give the expected rate of return to be applied for discounting the cash inflows, the internal rate of return.

Qst3. What do you understand by working capital? Explain various methods of working capital analysis. How will you measure working capital in a going concern?

Ans: Working Of Capital: As far as working capital management decisions are concerned the underlying criteria are the same but, there is an increased focus on liquidity and management of operating cycle. Operating cycle refers to the time it takes to convert current assets (excluding cash) into cash. The operating cycle in part determines how long it takes for a firm to generate cash from current assets and therefore the risk and cost of its investment in current assets or working capital. Working capital is the capital that can be immediately put to work to generate the benefits of capital investment. Working capital is also known as current capital or circulating capital.

The major difference between long-term financial management and short-term financial management (also referred to as working capital management) is with regards to quantum and frequency of cash flows. In case of long-term financial management the amount of funds dedicated are usually large and one off decisions whereas,

in case of short term financing the amount of funds dedicated are relatively small and frequently repetitive in nature. The impact of long term financing ranges over an extended period of time usually 15-20 years or more, whereas, the impact of short term financing is within the operating cycle usually ranging form three months to a year.

There are two concepts of working capital:

(i) Gross working capital

(ii) Net working capital

The gross working capital is the total of all current assets. Net working capital is the difference between current assets and current liabilities. The constituents of working capital are shown in *Table 4.1.* Part A of this table shows current assets and part B of this table shows current liabilities.

Table : Constituents of current assets and current liabilities

Part A	**Part B**
Current Assets	**Current Liabilities**
Cash and Bank Balances	Sundry Creditors
Inventories	Trade Advances
Raw material and components, work in progress/process (WIP) finished goods,	Borrowings (short term)
trade debtors, loans and advances,	Outstanding expenses
investments, pre-paid expenses	Taxes and dividends payable,
	Other liabilities maturing within a year

This unit deals with certain aspects and considerations related to overall working capital management and is divided into the following sections:

- characteristics of current assets
- factors influencing working capital requirements
- levels of current assets
- current assets financing policy
- profit criterion for current assets
- operating cycle analysis
- impact of inflation on working capital
- approaches to bank financing
- methods for estimating working capital requirements
- source of working capital finance

Qst.4 Write short notes on the following:

Ans: **(a) Outstanding Expenses:** Expenses are generally recorded only when they are paid. The failure to record an unpaid expenses in the accounts results in an understatement of that expense and also an understatement of a liability. In order to avoid understatement of these expenses and liabilitie, an adjustment entry is passed by debiting the expense account and, crediting the personal account of the party to whom such amount is to be paid. If outstanding expenses appear on the credit side of the trial balance, then they will be taken to the liability side of the balance sheet.

(b) Expenses paid in advance: Expenses paid in advance of their use or consumption are known as prepaid expenses. At the end of the year, a part of the payment remains unconsumed and is treated as an asset, because its benefit is to be availed of in future. For prepaid expense, the adjustment entry is made by debiting prepaid

expense account and crediting expense account. If this item appears on the debit side of the trial balance, it will be shown only on the assets side of the balance sheet. It will not appear in Profit &Loss Account at all.

(c) Accrued interest: Accrued income is an amount earned but not actually received during the accounting period or till the date of preparation of final accounts for the period concerned. The first effect of accrued income is to credit the profit and loss account and to show the same in the assets side of the balance sheet (d) Treatment of abnormal loss in final accounts: It is the income received but not earned during the accounting period. In other words, it is the income for which services are to be rendered in future. This income is deducted from the concerned income in the credit side of profit and loss account and is also shown as a liability in the balance sheet.

To see the impact of adjustment entries' on the final account (financial condition of the business firm) let's take the same illustration of Ms. Naina again only including the some common adjustments in it. And let us check its impact practically by comparing the transactions of both the illustrations (with or without adjustment entries).