BBS 3rd Year

Foundation of Financial System

Gazzab Ko Tuition Center

Chapter-wise details:

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3. Depository Financial Institution – Theory/Num (2-10,15)
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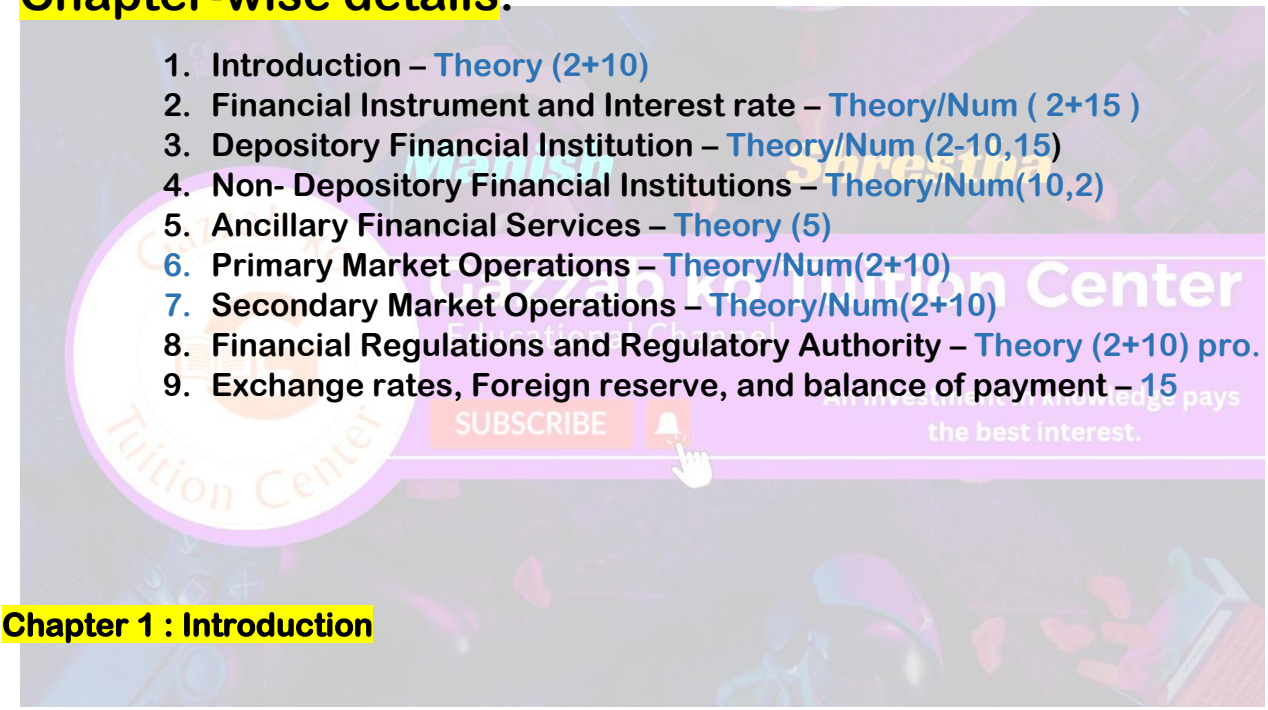

Chapter 1 : Introduction

Definition of Financial System (आर्थिक प्रणालीको परिभाषा)

A financial system is a set of institutions, markets, instruments, and regulations that facilitate the flow of money between individuals, businesses, and governments. It helps in mobilizing savings, allocating capital, and managing risks to support economic growth.

आर्थिक प्रणाली भनेको विभिन्न संस्थाहरू, बजार, उपकरणहरू, र नियमहरूको संयोजन हो, जसले व्यक्तिहरू, व्यवसायहरू, र सरकारहरू बीच पैसा प्रवाह गर्न मद्दत गर्छ। यसले बचत परिचालन, पूँजी विनियोजन, र जोखिम व्यवस्थापन गरेर आर्थिक वृद्धिमा सहयोग पुऱ्याउँछ।

Types of Financial Institutions (आर्थिक संस्थाहरूको प्रकार)

Financial institutions play a crucial role in managing money, credit, and investment in an economy. They are broadly classified into two types:

वित्तीय संस्थाहरूले कुनै पनि अर्थतन्त्रमा पैसा, ऋण, र लगानी व्यवस्थापनमा महत्त्वपूर्ण भूमिका खेल्छन्। तिनीहरू मुख्य रूपमा दुई प्रकार मा विभाजित छन्।

1. **Depository Financial Institutions (निक्षेप लिने वित्तीय संस्थाहरू)**

These institutions accept deposits from the public and provide loans. They play a key role in money circulation and credit creation.

यस्ता संस्थाहरूले जनता वा व्यवसायबाट निक्षेप संकलन गर्छन् र ऋण उपलब्ध गराउँछन्। तिनीहरूले पैसाको प्रवाह र ऋण सिर्जना गर्न महत्त्वपूर्ण भूमिका खेल्छन्।

Examples (उदाहरण):

Commercial Banks (20) (वाणिज्य बैंकहरू) – Nepal Rastra Bank, Nabil Bank, NIC Asia Bank

Development Banks (17)(विकास बैंकहरू) – Mahalaxmi Bikas Bank, Garima Bikas Bank

Microfinance Institutions (लघुवित्त संस्था) – Nirdhan Utthan, Chhimek Laghubitta

Cooperative Societies (सहकारी संस्था) – Savings and credit cooperatives

2. **Non-Depository Financial Institutions (गैर-निक्षेप लिने वित्तीय संस्थाहरू)**

These institutions do not accept deposits but provide financial services like investments, insurance, and asset management.

यस्ता संस्थाहरूले निक्षेप संकलन गर्दैनन् तर लगानी, बीमा, र सम्पत्ति व्यवस्थापन जस्ता वित्तीय सेवा प्रदान गर्छन्।

Examples (उदाहरण):

Insurance Companies (बीमा कम्पनीहरू) – Nepal Life Insurance, Rastriya Beema Sansthan

Investment Companies (लगानी कम्पनीहरू) – Nepal Investment Board, Merchant Banks

Pension Funds (पेंशन कोषहरू) – Citizen Investment Trust (CIT), Employees Provident Fund (EPF)

Stock Exchanges (शेयर बजार) – Nepal Stock Exchange (NEPSE)

A financial system is essential for economic stability and growth. It helps in mobilizing savings, allocating resources efficiently, and providing financial security to individuals and businesses. Financial institutions, whether depository or non-depository, play a significant role in ensuring the smooth functioning of the economy.

आर्थिक प्रणाली कुनै पनि देशको आर्थिक स्थिरता र वृद्धिको लागि आवश्यक छ। यसले बचत संकलन, स्रोत व्यवस्थापन, र वित्तीय सुरक्षामा सहयोग पुऱ्याउँछ। वित्तीय संस्थाहरूले अर्थतन्त्रको नियमित सञ्चालनमा महत्त्वपूर्ण भूमिका खेल्छन्।

Financial Intermediation (वित्तीय मध्यस्थता)

Financial intermediation refers to the process by which financial institutions act as intermediaries between savers and borrowers. These institutions mobilize savings from individuals and businesses and allocate funds to those who need them for investment or consumption. This process helps in the efficient flow of capital within an economy, reducing risks and transaction costs.

Example: Commercial banks collect deposits from the public and provide loans to businesses and individuals, ensuring economic activities continue smoothly.

वित्तीय मध्यस्थता भनेको वित्तीय संस्थाहरूले बचतकर्ता र ऋणीहरू बीच पुलको रूपमा कार्य गर्ने प्रक्रिया हो। यी संस्थाहरूले व्यक्तिगत वा व्यवसायबाट बचत संकलन गरेर आवश्यक लगानी वा खर्च गर्न चाहनेहरूलाई पूँजी प्रदान गर्छन्। यस प्रक्रियाले अर्थतन्त्रमा पूँजीको प्रवाहलाई प्रभावकारी बनाउँछ, जोखिम घटाउँछ, र कारोबार लागतलाई न्यून बनाउँछ।

उदाहरण: वाणिज्य बैंकहरूले जनता वा व्यवसायबाट बचत संकलन गर्छन् र व्यापार वा व्यक्तिगत आवश्यकताका लागि ऋण उपलब्ध गराउँछन्, जसले आर्थिक गतिविधि निरन्तर सञ्चालन गर्न मद्दत गर्छ।

Components of Financial System (वित्तीय प्रणालीका तत्वहरू)

A financial system is a network of institutions, markets, instruments, and regulations that facilitate the flow of funds within an economy. It plays a crucial role in mobilizing savings, allocating resources, managing risks, and supporting economic development.

वित्तीय प्रणाली भनेको संस्थाहरू, बजार, उपकरणहरू, र नियमहरूको संयोजन हो, जसले अर्थतन्त्रमा पैसाको प्रवाहलाई प्रभावकारी रूपमा व्यवस्थापन गर्छ।

There are Few Types of Components of Financial Systems:

1. Financial Institutions (वित्तीय संस्थाहरू)

Financial institutions act as intermediaries between savers and borrowers. They mobilize savings and provide financial services such as loans, investments, and insurance.

वित्तीय संस्थाहरू बचतकर्ता र ऋणीहरू बीच मध्यस्थको रूपमा कार्य गर्छन्, जसले पूँजी परिचालन, ऋण व्यवस्थापन, र लगानी सेवा प्रदान गर्छन्।

Types of Financial Institutions:

Depository Institutions (निक्षेप लिने संस्थाहरू) – Banks, Cooperatives, Microfinance

Non-Depository Institutions (गैर-निक्षेप लिने संस्थाहरू) – Insurance companies, Pension funds, Investment firms

2. Financial Markets (वित्तीय बजारहरू)

Financial markets facilitate the buying and selling of financial assets, such as stocks, bonds, and currencies. They help in the smooth allocation of capital.

वित्तीय बजारहरू पूँजी लगानीको लागि शेयर, बण्ड, तथा अन्य धितोपत्रहरूको किनबेच गर्नको लागि प्रयोग गरिन्छ।

Types of Financial Markets:

Money Market (मुद्रा बजार) – Short-term securities (T-bills, Commercial papers)

Capital Market (पूँजी बजार) – Long-term securities (Stocks, Bonds)

Foreign Exchange Market (विदेशी विनिमय बजार) – Currency trading (Forex)

Commodity Market (बस्तु बजार) – Trading of goods like gold, oil, and agricultural products

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3. Financial Instruments (वित्तीय उपकरणहरू)

Financial instruments are contracts that represent financial assets such as money, bonds, stocks, and derivatives. These instruments help in transferring money and managing risks.

वित्तीय उपकरणहरू पूँजीको प्रवाहलाई व्यवस्थित गर्न शेयर, बण्ड, ऋणपत्र, तथा अन्य वित्तीय साधनहरू हुन्।

Types of Financial Instruments:

Debt Instruments (ऋण उपकरणहरू) – Bonds, Treasury bills

Equity Instruments (इक्विटी उपकरणहरू) – Shares, Stocks

Derivative Instruments (डेरिभेटिभ उपकरणहरू) – Futures, Options

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4. Financial Services (वित्तीय सेवाहरू)

Financial services support financial transactions by providing banking, insurance, investment, and risk management solutions.

वित्तीय सेवाहरू बैंकिङ, बीमा, लगानी, र जोखिम व्यवस्थापन जस्ता वित्तीय कारोबारमा सहायता गर्ने सेवाहरू हुन्।

Types of Financial Services:

Banking Services (बैंकिङ सेवा) – Deposits, Loans, Credit cards

Investment Services (लगानी सेवा) – Mutual funds, Portfolio management

Insurance Services (बीमा सेवा) – Life insurance, Health insurance

Foreign Exchange Services (विनिमय सेवा) – Currency exchange, International remittances

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5. Financial Regulations (वित्तीय नियमहरू)

Financial regulations ensure stability, transparency, and security in the financial system by monitoring and controlling financial institutions and markets.

वित्तीय नियमहरूले अर्थतन्त्रमा स्थिरता, पारदर्शिता, र सुरक्षा कायम गर्नका लागि वित्तीय संस्थाहरूको नियमन गर्छ।

Key Regulatory Bodies in Nepal:

Nepal Rastra Bank (नेपाल राष्ट्र बैंक) – Regulates banks and monetary policies

Securities Board of Nepal (SEBON) (नेपाल धितोपत्र बोर्ड) – Regulates stock markets

Insurance Board (बीमा समिति) – Regulates insurance companies

Company Registrar Office (कम्पनी रजिष्ट्रारको कार्यालय) – Regulates business registrations

Size of the Nepalese Financial System

1. Number of Financial Institutions (FI) in Nepal (As per Nepal Rastra Bank, 2023)

Type of Financial Institution	Number (2080 BS)
Commercial Banks (वाणिज्य बैंक)	20
Development Banks (विकास बैंक)	17
Finance Companies (वित्त कम्पनी)	17
Microfinance Institutions (लघुवित्त संस्था)	65
Insurance Companies (बीमा कम्पनी)	40+
Cooperatives (सहकारी संस्था)	34,000+
Securities Firms & Merchant Banks	50+

The financial sector contributes about **25% to Nepal's GDP**, with commercial banks dominating the sector.

Functions of Financial Intermediaries

a) Mobilization of Savings (बचत संकलन गर्ने)
b) Efficient Allocation of Capital (पूँजीको उचित व्यवस्थापन गर्ने)
c) Risk Management (जोखिम व्यवस्थापन गर्ने)
d) Liquidity Provision (तरलता व्यवस्थापन गर्ने)
e) Facilitating Payments and Transactions (भुक्तानी प्रणाली सहज बनाउने)
f) Price Determination in Financial Markets (वित्तीय बजारमा मूल्य निर्धारण गर्ने)
g) Reducing Transaction Costs (कारोबार लागत घटाउने)

Role of Financial Intermediaries in the Financial System of a Country

Promoting Economic Growth (आर्थिक वृद्धिमा योगदान)

Enhancing Financial Inclusion (वित्तीय पहुँच वृद्धि गर्ने)

Stabilizing the Economy (अर्थतन्त्रलाई स्थिर बनाउने)

Strengthening Investment Opportunities (लगानीका अवसर बढाउने)

Supporting Government Policies (सरकारी नीतिहरूलाई सहयोग गर्ने)

Chapter 2

Financial Instrument and Interest Rate

Financial Instrument (वित्तीय उपकरण)

A financial instrument is a legal contract that represents a financial value. It can be used for investment, raising capital, or hedging risks in financial markets. Financial instruments are classified into different types based on their nature and function.

वित्तीय उपकरण (Financial Instrument) भनेको कुनै पनि यस्तो कानूनी सम्झौता वा साधन हो, जसले वित्तीय मूल्य (Financial Value) प्रतिनिधित्व गर्छ। यसलाई लगानी, पूँजी संकलन, जोखिम व्यवस्थापन वा वित्तीय कारोबारका लागि प्रयोग गरिन्छ।

Common Types of Financial Instruments:

- Equity Instruments
- Debt Instruments (ऋण उपकरण)
- Derivative Instruments (व्युत्पन्न उपकरण)
- Cash Instruments (नगद उपकरण)

The main Types of Financial Instruments are:

1. **Money Market Instrument**
2. **Capital Market Instrument**

- **Money Market Instrument**

Money Market Instruments - are short-term debt securities that are highly liquid and have low risk. These instruments are typically used by governments, financial institutions, and corporations to manage short-term funding needs. They generally have maturities of one year or less and are considered safe investments due to their short-term nature. Examples of money market instruments include Treasury bills, certificates of deposit (CDs), commercial paper, and repurchase agreements (repos).

मनि मार्केट इन्स्ट्रुमेन्टहरू भनेका छोटो अवधिका ऋण सुरक्षा उपकरणहरू हुन्, जुन अत्यधिक तरल र कम जोखिम भएका हुन्छन्। यी उपकरणहरू प्रायः सरकार, वित्तीय संस्थाहरू, र कम्पनीहरूले छोटो अवधिका फन्डिङ आवश्यकता पूरा गर्न प्रयोग गर्छन्। यी उपकरणहरूको सामान्यतया म्याच्युरिटी एक वर्षभन्दा कम हुन्छ र तिनीहरूलाई छोटो अवधिको स्वभावका कारण सुरक्षित लगानीका रूपमा मानिन्छ। मनि मार्केट इन्स्ट्रुमेन्टहरूको उदाहरणमा ट्रेजरी बिल्स, सर्टिफिकेट अफ डिपोजिट (सीडी), कमर्शियल पेपर र रिपर्चेज एग्रीमेन्ट (रेपो) समावेश छन्।

Type of Money Market Instruments are :

Treasury Bills (T-Bills) | ट्रेजरी बिल (टी-बिल्स)

- Issued by the government to meet short-term borrowing needs.
- These are sold at a discount and redeemed at face value upon maturity.
- Considered the safest money market instrument.

Example: A government might issue a 91-day T-bill for NPR 98,000, which will be redeemed at NPR 100,000 after 91 days.

👉 **सरकारले छोटो अवधिको ऋण उठाउन जारी गर्ने वित्तीय साधन। यी छुटमा बेचिन्छन् र परिपक्वता भएपछि पूरा रकम फिर्ता पाइन्छ।**

Certificate of Deposit (CD) | प्रमाणपत्र निक्षेप (सीडी)

- Issued by banks and financial institutions to attract fixed-term deposits.
- Offers higher interest rates than savings accounts.
- Can be traded in the secondary market before maturity.

Example: A bank issues a CD for NPR 500,000 with a maturity of 6 months at a 7% annual interest rate.

👉 **बैंक तथा वित्तीय संस्थाले जारी गर्ने निक्षेप साधन, जसमा निश्चित अवधिको लागि लगानी गरिन्छ र उच्च ब्याज पाइन्छ।**

Commercial Paper (CP) | वाणिज्य पत्र (सीपी)

- Issued by large corporations to raise short-term funds.
- Typically unsecured but backed by the company's creditworthiness.
- Maturity ranges from 7 days to 1 year.

Example: A large company issues a commercial paper worth NPR 10 million for 180 days to finance its working capital.

👉 **ठूला कम्पनीहरूले छोटो अवधिको लागि पूँजी उठाउन जारी गर्ने ऋणपत्र। यो बैंक ग्यारेन्टीविना कम्पनीको क्रेडिटमा निर्भर गर्दछ।**

Repurchase Agreements (Repo) | पुनर्खरिद सम्झौता (रेपो)

- A short-term borrowing tool where securities are sold with an agreement to repurchase them at a higher price.
- Used by banks and financial institutions to manage liquidity.
- The difference between the selling and repurchase price is the interest earned.

Example: A bank sells government securities worth NPR 50 million with an agreement to buy them back in 7 days at NPR 50.5 million.

👉 **छोटो अवधिको ऋण उठाउन प्रयोग गरिने सम्झौता, जहाँ बैंक वा वित्तीय संस्थाले सुरक्षाहरू बेचेर पछि फिर्ता किन्ने गर्छ।**

Banker's Acceptance (BA) | बैंकरको स्वीकृति (बीए)

- A short-term credit instrument guaranteed by a bank.
- Used in international trade transactions.
- Maturity period ranges from 30 to 180 days.

Example: A company imports goods worth NPR 2 million and issues a BA, which the bank guarantees to pay after 90 days.

👉 **अन्तर्राष्ट्रिय व्यापारका लागि बैंकले ग्यारेन्टी दिने छोटो अवधिको वित्तीय साधन।**

Call Money & Notice Money | कल मनी र नोटिस मनी

- **Call Money:** Short-term borrowing for one day.
- **Notice Money:** Short-term borrowing for more than 1 day but less than 14 days.
- Used by banks to maintain cash reserve requirements.

Example: A bank borrows NPR 100 million for one day under call money.

👉 **बैंकहरूले आफ्नो तरलता व्यवस्थापन गर्न एक दिन वा केही दिनको लागि लिने छोटो अवधिको ऋण।**

Interbank Lending Market | अन्तर्बैंक ऋण बजार

- Banks lend to each other to manage short-term liquidity needs.
- Interest rates fluctuate based on market conditions.

Example: Bank A lends NPR 500 million to Bank B for 7 days at an interest rate of 5%.

👉 **बैंकहरूले एकअर्कालाई छोटो अवधिको लागि दिने ऋण, जुन बजार दरमा आधारित हुन्छ।**

- **Capital Market Instrument**

Capital Market Instruments (पूँजी बजार उपकरण)

Capital market instruments are financial securities used by companies and governments to raise long-term funds. These instruments typically have a maturity of more than one year and help in wealth creation, investment, and economic growth.

पूँजी बजार उपकरण भनेको कम्पनीहरू र सरकारले दीर्घकालीन वित्तीय स्रोत जुटाउन प्रयोग गर्ने वित्तीय साधनहरू हुन्। यी साधनहरूको परिपक्वता अवधि एक वर्षभन्दा बढी हुन्छ।

Type of Capital Market Instruments are :

Equity Shares (इक्विटी सेयर)

- Represents ownership in a company.
- Shareholders receive dividends and have voting rights.
- The price of equity shares fluctuates based on market demand and company performance.

👉 **इक्विटी सेयर भनेको कम्पनीमा स्वामित्व जनाउने साधन हो। सेयरधनीले मुनाफाबाट लाभांश प्राप्त गर्छन् र कम्पनीको निर्णय प्रक्रियामा मताधिकार राख्छन्।**

Preference Shares (प्राथमिकता सेयर)

- Shareholders get a fixed dividend before equity shareholders.
- No or limited voting rights.
- In case of liquidation, preference shareholders are paid before equity shareholders.

👉 **प्राथमिकता सेयरधनीले निश्चित मात्राको लाभांश पाउँछन्, तर उनीहरूसँग मतदानको अधिकार सीमित हुन्छ।**

Bonds & Debentures (बण्ड र डिबेन्चर)

- Debt instruments where investors lend money to companies or governments.
- Fixed interest payments (coupon payments) at regular intervals.
- Safer than equity shares but offer lower returns.

👉 **बण्ड र डिबेन्चर भनेको ऋणपत्रहरू हुन्, जसमा लगानीकर्ताले कम्पनी वा सरकारलाई निश्चित ब्याजदरमा ऋण दिन्छन्।**

Government Securities (सरकारी प्रतिभूति - G-Secs)

- Issued by the government to raise long-term funds.
- Considered the safest capital market instrument.
- Examples: Treasury Bonds, Savings Bonds.

👉 **सरकारले दीर्घकालीन वित्तीय स्रोत जुटाउन जारी गर्ने सुरक्षा साधन। यी सबैभन्दा सुरक्षित लगानी मानिन्छ।**

Mutual Funds (म्युचुअल फण्ड)

- A collective investment scheme where funds from multiple investors are pooled and invested in stocks, bonds, or other securities.
- Managed by professional fund managers.
- Offers diversification and risk management.

👉 **म्युचुअल फण्ड भनेको विभिन्न लगानीकर्ताहरूको रकम संकलन गरी सेयर, बण्ड, वा अन्य सुरक्षा साधनहरूमा लगानी गर्ने कोष हो।**

Derivatives (डेरिभेटिभ्स)

- Financial contracts whose value is derived from an underlying asset (stocks, bonds, commodities, etc.).
- Types: Futures, Options, Swaps.
- Used for hedging and speculation.

Exchange-Traded Funds (ETFs) | एक्सचेन्ज-ट्रेडेड फण्ड (ईटीएफ)

- A type of investment fund that trades like a stock on the stock exchange.
- Offers diversification and lower fees.

👉 **ईटीएफ भनेको स्टक एक्सचेन्जमा कारोबार गरिने लगानी कोष हो, जसले कम लागतमा विविधीकरणको सुविधा दिन्छ।**

👉 **डेरिभेटिभ्स भनेको कुनै आधारभूत सम्पत्तिको मूल्यमा आधारित वित्तीय सम्झौता हो, जसलाई जोखीम व्यवस्थापन वा नाफा कमाउन प्रयोग गरिन्छ।**

Interest Rate (ब्याज दर)

An interest rate is the cost of borrowing money or the return earned on an investment, expressed as a percentage of the principal amount. Interest rates are set by central banks, financial institutions, and market conditions.

Types of Interest Rates:

- Fixed Interest Rate (स्थिर ब्याज दर)
- Variable Interest Rate (परिवर्तनीय ब्याज दर)
- Nominal Interest Rate (नाममात्र ब्याज दर)
- Real Interest Rate (वास्तविक ब्याज दर)

Derivative Securities (व्युत्पन्न प्रतिभूति)

Derivative securities are financial contracts whose value is derived from an underlying asset, such as stocks, bonds, commodities, currencies, interest rates, or market indexes. They are used for **hedging risks, speculation, and arbitrage** in financial markets.

व्युत्पन्न प्रतिभूति (Derivative Securities) भनेको यस्ता वित्तीय सम्झौताहरू हुन्, जसको मूल्य कुनै अन्य सम्पत्तिको (Underlying Asset) मूल्यबाट प्राप्त हुन्छ। उदाहरणका लागि, शेयर, ऋणपत्र, वस्तुहरू (Commodities), मुद्राहरू (Currencies), ब्याज दर (Interest Rates) वा बजार सूचकांकहरू (Market Indexes)।

Key Features of Derivative Securities:

✓ **Value Depends on Underlying Asset** – The price of derivatives fluctuates based on the value of the underlying asset.

✓ **Used for Hedging & Risk Management** – Investors and businesses use derivatives to protect against market fluctuations.

✓ **Can be Highly Leveraged** – Small investments can control large amounts of assets, increasing both potential gains and risks.

Definition of Base Interest Rate

The Base Interest Rate is the minimum interest rate set by a central bank or financial institution, below which commercial banks cannot lend to their customers. It serves as a benchmark for determining lending rates for various loans. This rate is influenced by factors such as the cost of funds, inflation, and economic policies.

बेस ब्याजदर भनेको केन्द्रीय बैंक वा वित्तीय संस्थाले निर्धारण गर्ने न्यूनतम ब्याजदर हो, जसभन्दा कम ब्याजदरमा वाणिज्य बैंकहरूले ग्राहकलाई ऋण दिन सक्दैनन्। यो ब्याजदर विभिन्न ऋणहरूको ब्याजदर निर्धारण गर्ने आधारको रूपमा काम गर्छ। यसलाई कोषको लागत, मुद्रास्फीति, र आर्थिक नीतिहरू जस्ता तत्वहरूले प्रभावित गर्छ।

Open-End Funds vs. Closed-End Funds

1. Open-End Funds

Definition:

Open-end funds are mutual funds that continuously issue and redeem shares based on investor demand. There is no fixed number of shares, and investors can buy or sell shares directly from the fund at the **Net Asset Value (NAV)**, which is calculated daily.

Key Features:

- Shares are bought and sold at NAV.
- No limit on the number of shares issued.
- Investors can enter or exit at any time.
- Managed by professional fund managers.
- Common examples: Mutual Funds, Exchange-Traded Funds (ETFs).

2. Closed-End Funds

Definition:

Closed-end funds are investment funds that issue a fixed number of shares through an **Initial Public Offering (IPO)**. These shares are then traded on stock exchanges like stocks, and their prices fluctuate based on supply and demand rather than NAV.

Key Features:

- Fixed number of shares available.
- Shares trade on stock exchanges at market price, which may be above or below NAV.
- Investors must buy or sell through the stock market.
- Less liquidity compared to open-end funds.
- Common examples: Closed-End Mutual Funds, Listed Investment Companies.

Feature	Open-End Funds	Closed-End Funds
Share Issuance	Unlimited shares	Fixed number of shares
Trading Method	Bought/sold at NAV	Traded on stock exchanges
Pricing	Based on NAV	Market-driven price
Liquidity	Highly liquid	Less liquid
Regulation	Managed by fund managers	Subject to market fluctuations

Loanable Funds Theory of Interest Rate

The Loanable Funds Theory explains the determination of the interest rate in an economy based on the demand and supply of loanable funds. According to this theory, the interest rate is the price of borrowing money, determined by the interaction of those who supply loanable funds (savers) and those who demand them (borrowers).

Key Components:

- Supply of Loanable Funds: Comes from savings by households, businesses, and the government. More savings increase the supply of loanable funds, leading to lower interest rates.
- Demand for Loanable Funds: Comes from businesses for investment, consumers for loans, and the government for deficit financing. Higher demand raises interest rates.
- Equilibrium Interest Rate: The point where the demand and supply of loanable funds meet determines the prevailing interest rate.
- Factors Affecting Loanable Funds:
- Savings Rate: More savings increase loanable funds and lower interest rates.
- Investment Demand: Higher demand for capital raises interest rates.
- Inflation Expectations: Higher inflation expectations lead to higher interest rates.
- Government Policies: Tax policies, subsidies, and central bank regulations affect the supply and demand for funds.
-

In Nepali (नेपालीमा):

ऋणयोग्य कोष सिद्धान्त (Loanable Funds Theory) अर्थशास्त्रमा ब्याजदर निर्धारण गर्ने एउटा सिद्धान्त हो। यो सिद्धान्त अनुसार ब्याजदर ऋणयोग्य कोषको आपूर्ति (Supply) र माग (Demand) को परस्पर क्रियाद्वारा निर्धारण गरिन्छ।

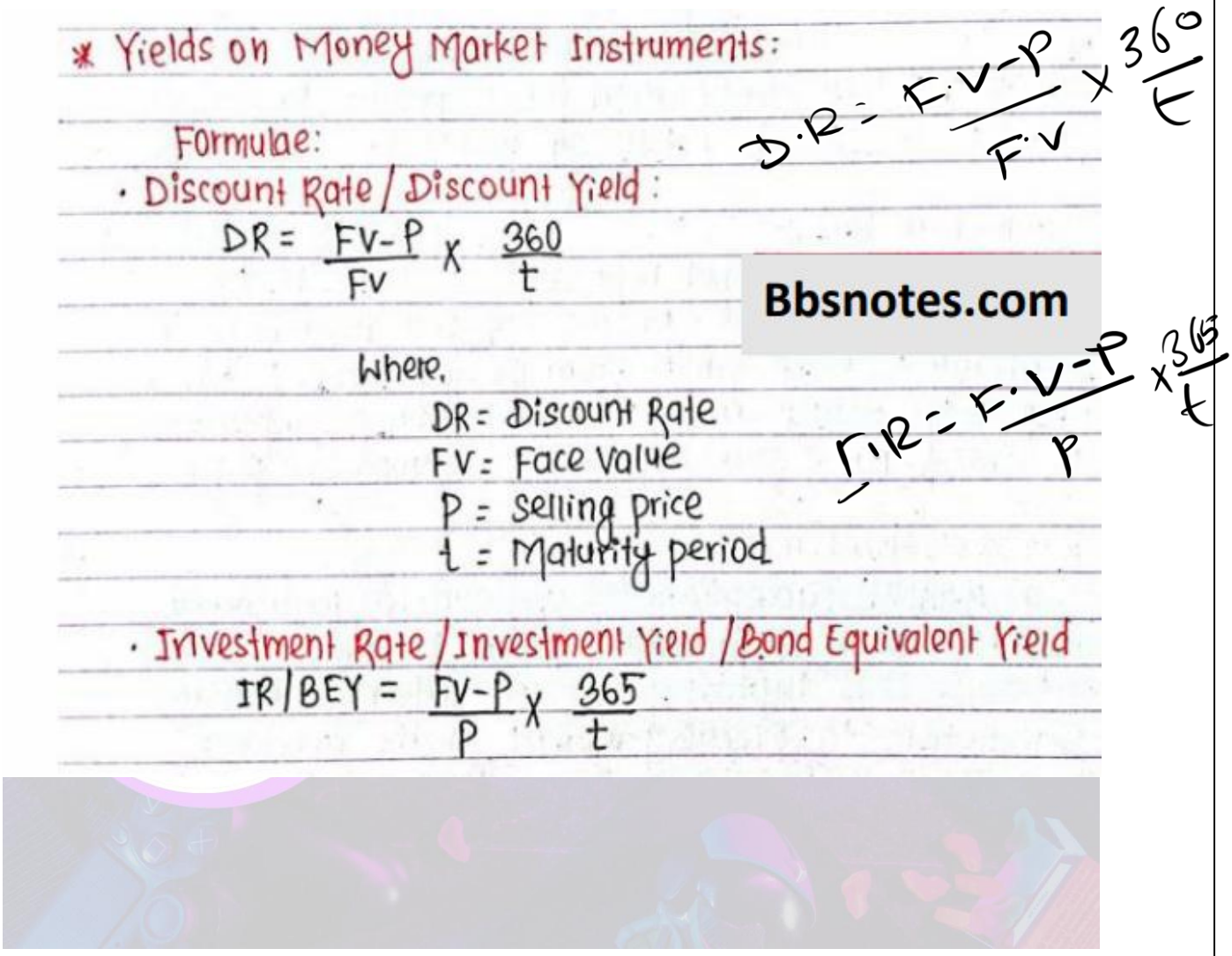
मुख्य तत्वहरू:

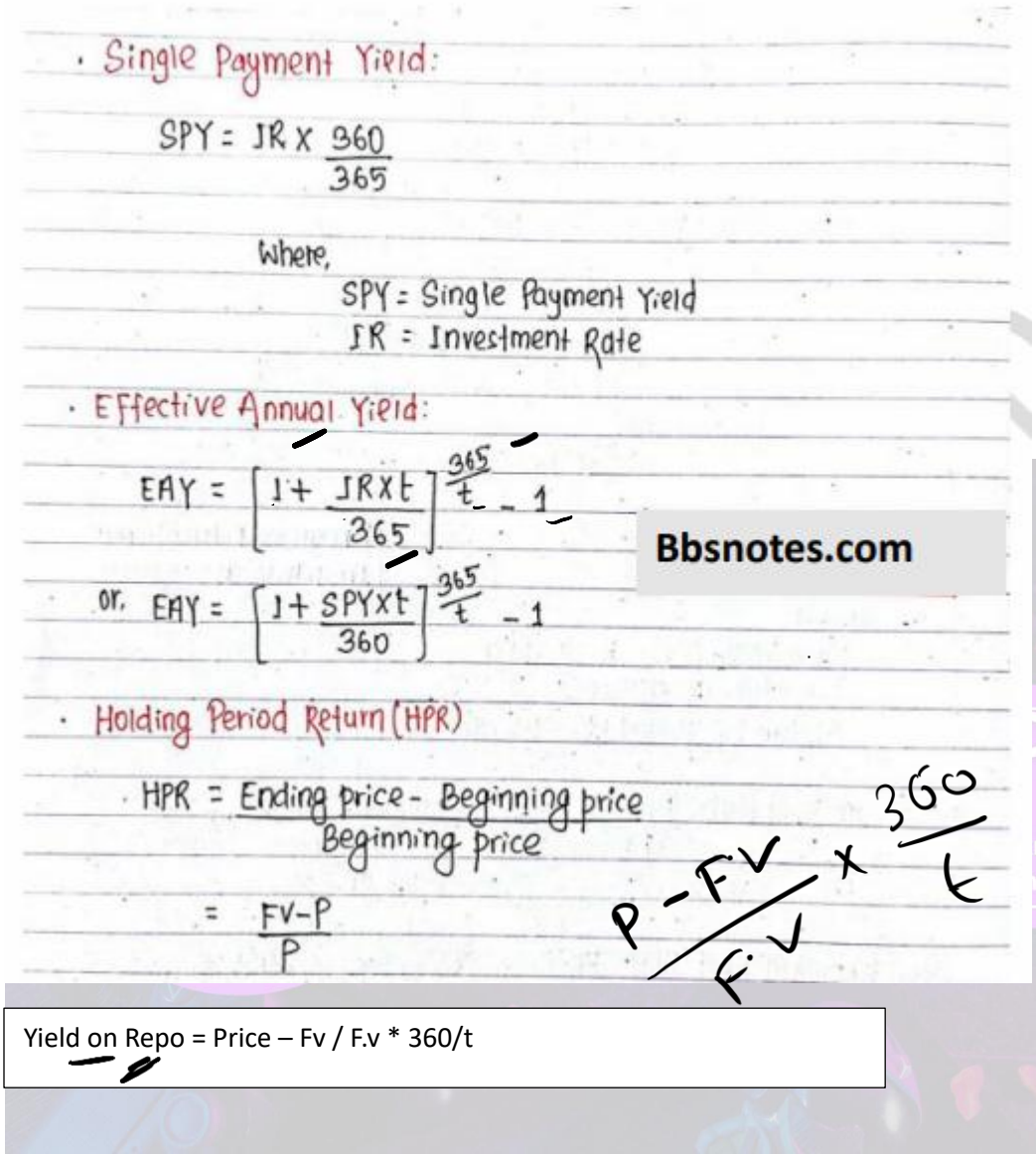
1. **ऋणयोग्य कोषको आपूर्ति: घरपरिवार, व्यवसाय, र सरकारको बचतबाट आउँछ। बचत बढेमा ऋणयोग्य कोषको आपूर्ति बढ्छ, जसले ब्याजदर घटाउँछ।**
2. **ऋणयोग्य कोषको माग: व्यवसायहरूका लगानी आवश्यकताहरू, उपभोक्ताहरूका ऋण आवश्यकताहरू, र सरकारको घाटा पूर्ति आवश्यकताबाट उत्पन्न हुन्छ। माग बढेमा ब्याजदर बढ्छ।**
3. **सन्तुलित ब्याजदर (Equilibrium Interest Rate): ऋणयोग्य कोषको आपूर्ति र माग जहाँ समान हुन्छ, त्यहाँ ब्याजदर निर्धारण हुन्छ।**

ऋणयोग्य कोषलाई असर गर्ने तत्वहरू:

- **बचत दर: बचत बढेमा ब्याजदर घट्छ।**
- **लगानीको माग: लगानीको माग बढेमा ब्याजदर बढ्छ।**
- **मुद्रास्फीति अपेक्षा: मुद्रास्फीति उच्च भएमा ब्याजदर पनि बढ्छ।**
- **सरकारी नीति: कर, अनुदान, र केन्द्रीय बैंकको नियमहरूले कोषको आपूर्ति र मागमा असर पार्छ।**

List of Formula In finance of Unit -2





Yield on Repo = Price – Fv / F.v * 360/t

Formulae:

1. Net Assets Value (NAV) = $\frac{\text{Total assets - Liabilities}}{\text{Number of shares outstanding}}$

2. Offering price per share = $\frac{\text{NAV per share}}{1 - \text{load fee}}$

3. Current Market price = NAV (1 - discount %)
   or,
   = NAV (1 + premium %)

4. Discount percentage = $\frac{\text{NAV - Current MPS}}{\text{NAV}}$

5. Premium percentage = $\frac{\text{Current MPS - NAV}}{\text{NAV}}$

Note:
If NAV > Current MPS → Discount
NAV < Current MPS → premium

6. NAV Based HPR = $\frac{NAV_1 - NAV_0 + D_1 + CG_1}{NAV_0} \times 100$

* Interest Rates:

$$K = K^* + IP + DRP + LP + MRP + SP$$

Where,

K = Market rate of interest on a 'n' year security, which differ from one security to another depending upon the nature of risk associated.

K* = Real Risk-free rate of interest that exists on a risk-free assets in the world with zero inflation. (T-bill rate)

IP = Average inflation premium

DRP = Default Risk premium that results because of the possibility that a borrower will not pay interest and principal within the stated time period.

LP = liquidity premium

MRP = Maturity Risk premium reflected by price risk on longer-term security.

SP = Specral feature premium on the given securities.

- Treasury Securities:

$$ok_{n\text{-}T} = K^* + IP + MRP$$

- Corporate Securities:

$$ok_{n\text{-}C} = K^* + IP + MRP + DRP + LP$$
$$= ok_{n\text{-}T} + DRP + LP$$

$$IP_{100} = \frac{I_1 + I_2 + I_3 + I_4 \times 86}{100}$$

IP = Average Inflation premium

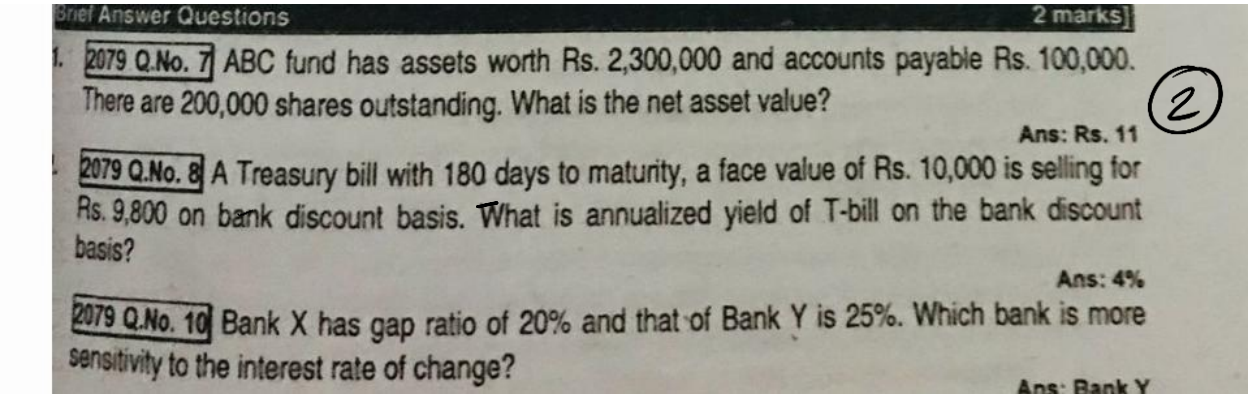
$$IP_1 = I_1$$

$$IP_2 = \frac{I_1 + I_2}{2}$$

$$IP_3 = \frac{I_1 + I_2 + I_3}{3}$$ and so on....

Where,

I_1 = Rate of inflation in year 1
I_2 = Rate of Inflation in Year 2
I_3 = Rate of inflation in year 3 and so on...



Brief Answer Questions 2 marks]

1. 2079 Q.No. 7 ABC fund has assets worth Rs. 2,300,000 and accounts payable Rs. 100,000. There are 200,000 shares outstanding. What is the net asset value?

Ans: Rs. 11

2079 Q.No. 8 A Treasury bill with 180 days to maturity, a face value of Rs. 10,000 is selling for Rs. 9,800 on bank discount basis. What is annualized yield of T-bill on the bank discount basis?

Ans: 4%

2079 Q.No. 10 Bank X has gap ratio of 20% and that of Bank Y is 25%. Which bank is more sensitivity to the interest rate of change?

Ans: Bank Y

2079 Q.N 7

Solution

Given,

Total Assets = Rs.23,00,000

Total Liabilities = Rs. 100,000

No. of Share outstanding = 200,000 share

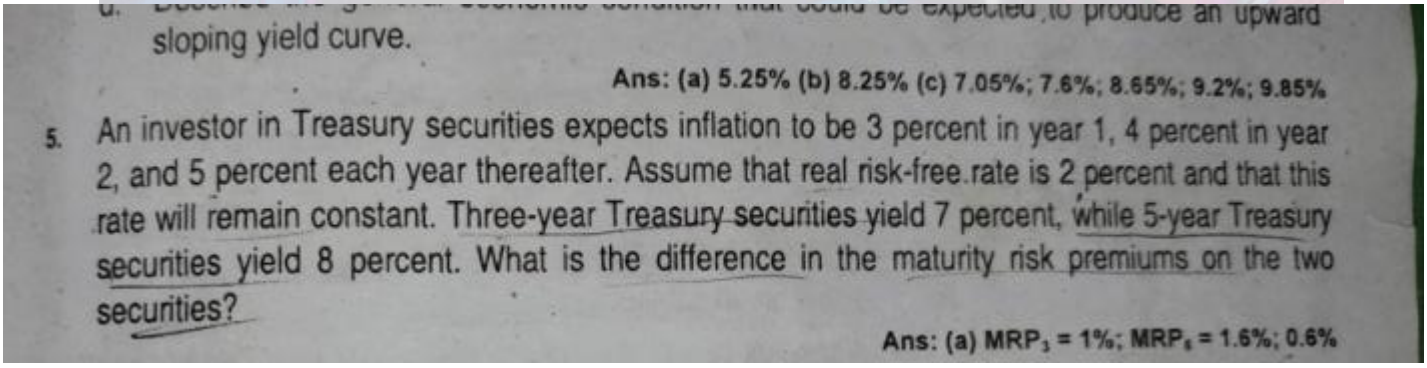
Net Asset Value (NAV) = ?

Now , We know that ,

Net Assets Value (NAV) = $\frac{\text{Total asset – total liabilities}}{\text{No. of shares outstanding}}$

= 23,00,000 – 100,000 / 200,000

= Rs. 11



sloping yield curve.

Ans: (a) 5.25% (b) 8.25% (c) 7.05%; 7.6%; 8.65%; 9.2%; 9.85%

5. An investor in Treasury securities expects inflation to be 3 percent in year 1, 4 percent in year 2, and 5 percent each year thereafter. Assume that real risk-free rate is 2 percent and that this rate will remain constant. Three-year Treasury securities yield 7 percent, while 5-year Treasury securities yield 8 percent. What is the difference in the maturity risk premiums on the two securities?

Ans: (a) MRP_3 = 1%; MRP_5 = 1.6%; 0.6%

Descriptive Answer Questions [10 marks]

4. A Treasury bill with 180 days to maturity, a face value of Rs 10,000 is selling for Rs 9,900 on bank discount basis.
   a. What is annualized yield of T-bill on the bank discount basis?
   b. What is its investment rate?
   c. What is the holding period return on T-bill?
   d. What is the effective annual yield on the T-bill?

Sol^{n} Given,

Time to maturity (t) = 180 days

Face value (F.V) = Rs. 10,000

selling price (P) = Rs. 9,900 (Discount Basis)

a) Annualized yield T-bill on bank

Discount basis.

$$DR = \frac{F.V - P}{F.V} \times \frac{360}{t}$$

$$= \frac{10,000 - 9,900}{10,000} \times \frac{360}{180} = 0.02 \text{ or } 2\%$$

∴ Hence, Annualized yield on treasury bill on bank Discount basis is 2%.

b) Investment Rate:

$$IR = \frac{F.V - P}{P} \times \frac{365}{t}$$

$$= \frac{10,000 - 9,900}{9,900} \times \frac{365}{180}$$

$$= 0.0205 \text{ or } 2.05\%$$

∴ Annualized investment yield on treasury bill on investment basis is 2.05%.

c) Holding period Return (HPR)

$$HPR = \frac{E - B}{B}$$

$$HPR = \frac{F.V - P}{P}$$

$$= \frac{10,000 - 9900}{9900} = 0.0101 \text{ or } 1.01\%$$

∴ Hence, 180-days holding period return on T-bill is 1.01%.

d) Effective Annualized yield on T-bill.

$$EAY = \left[1 + \frac{IR \times t}{365}\right]^{\frac{365}{t}} - 1$$

$$\left[1 + \frac{180}{365}\right]^{\frac{365}{180}}$$

$$= \left[1 + 0.0205 \times \frac{}{} \right. \qquad 180 \qquad - 1$$

$$= 0.0205 \text{ or } 2.05\%$$

∴ Hence, Effective Annualized yield on T-bill is 2.05%. Ans

Ans: (a) 2% (b) 2.05% (c) 1.01% (d) 2.05%

5. The ABC Growth Fund, a closed-end investment company, has a portfolio of assets worth Rs 1,000 million. It has liabilities of Rs 5 million. It also has 80 million shares outstanding.
   a. What is the fund's NAV?
   b. If the fund trades at 5 percent discount from its NAV, what is the market price of the fund's shares?

Ans: (a) Rs 12.44 per share (b) Rs 11.82 per share

Sol^n Given,

Total Asset = Rs. 1000 million

Total liabilities = Rs. 5 million

No. of share outstanding = 80 million shares

(a) Net Asset value (NAV) = $\frac{\text{Total Asset} - \text{Total liabilities}}{\text{No. of share as}}$ = Rs. 12.44 per share

(b) If fund trade at 5% Discount

Market price = NAV(1 − Dis. rate)

= 12.44(1 − 0.05)

= Rs. 11.82 per share

Ans: (a) Rs 12.44 per share (b) Rs 11.82 per share

6. Suppose a mutual fund has the following assets and liabilities:

Stocks	Rs 700,000
Bonds	Rs 500,000
Accounts payable	Rs 200,000

There are 50,000 shares outstanding.

a. What is the NAV?

b. Suppose the firm sells another 1,000 shares. It has a 2 percent load. What is the selling price?

Ans: (a) Rs 20 (b) Rs 20.41

Sol^2

Total Asset = stock + Bond

= 7,00,000 + 5,00,000

= Rs. 12,00,000

Total liabilities = Account payable = Rs. 2,00,000

No. of share o/s = Rs. 50,000

Now,

Net Asset value (NAV) = ?.

$$NAV = \frac{\text{Total Asset} - \text{total liabilities}}{\text{No. of share outstanding}}$$

(b) load fees = 2%

$$\text{Selling price} = \frac{NAV}{1 - \text{Load fees}} = \frac{12,00,000 - 2,00,000}{50,000} \Big/ \frac{20}{1 - 0.02}$$

$$= \frac{20}{0.98} = \text{Rs } 20.41$$

Ans: (a) Rs 20 (b) Rs 20.41

7. An investor in Treasury securities expects inflation to be 3 percent in year 1, 4 percent in year 2, and 5 percent each year thereafter. Assume that real risk-free rate is 2 percent and that this rate will remain constant. Three-year Treasury securities yield 7 percent, while 5-year Treasury securities yield 8 percent. What is the difference in the maturity risk premiums on the two securities?

Soln

Given,

Expected inflation year 1 (I_1) = 3% ✓

Expected inflation year 2 (I_2) = 4% ✓

Expected inflation year 3 ($I_{3-\infty}$) = 5% ✓

Real Risk free rate (k^*) = 2%

Three year T-sec. (Ok_3) = 7%

Five year T-sec (Ok_5) = 8%

MRP on 5 yr & 3 year security ($Ok_5 - Ok_3$) = ?

$$Ok_{3\,T\,sec.} = k^* + IP_3 + MRP_3$$

$$7\% = 2\% + \frac{I_1 + I_2 + I_3}{3} + MRP_3$$

$$\text{or } 5\% = 24\% \div 3\% + 4\% + 5\% + MRP_3$$

$$\therefore MRP_3 = 1\% \text{ Ans}$$

Again,

$+ MRP_5$

5 T-sec.

$$OK = k^* + IP_5$$

$$\text{or, } 8\% = 2\% + \frac{I_1 + I_2 + I_3 + I_4 + I_5}{5} + MRP_5$$

$$\text{or, } 8\% - 2\% = \frac{3\% + 4\% + 5 \times 3\%}{5} + MRP_5$$

$$\text{or, } 6\% = 4.4\% + MRP_5$$

$$\therefore MRP_5 = 1.6\%$$

Now, we have to calculate Difference Between $MRP_5 - MRP_3$

$$= 1.6\% - 1\%$$

$$= 0.6\%$$

∴ Hence, Difference between three year yield on treasury or five year yield on treasury security is 0.6%. Ans

Expected, starting ← left

Formula

$$_0k_1 = k^* + \bar{I}_1$$

$$_1k_2 = k^* + \bar{I}_2$$

$$_2k_3 = k^* + \bar{I}_3$$

$$_4k_5 = k^* + \bar{I}_5$$

. During.

From now, Today → right

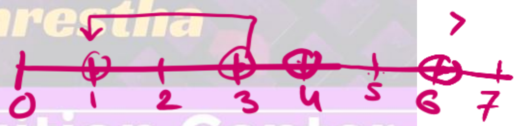
Expectation Theory Ideas:

① 3 year security, 5 year from Now, Today

② 2 year forwarded rate. During / Expected to 4th year.

③ 3 year forwarded rate During 5th year $_5k_2 = ?$

④ 2 year forwarded rate starting at year 2. → जाति अवधि १ वर्ष पछि



② year security, 4 year from today. (gap)

$$_4k_6 = \left[\frac{(1+{_0k_6})^6}{(1+{_0k_4})^4}\right]^{\frac{1}{6-4}} - 1$$

Ans: DRP = 1.2%

9. Suppose the annual yield on a 2-year Treasury bond is 12 percent, while that on a 1-year bond is 11 percent. Real risk-free rate is 3 percent and the maturity risk premium is zero.
   a. Using the expectation theory, forecast the interest rate on a 1-year bond during the second year.
   b. What is the expected inflation rate in year 1? Year 2?
   c. Comment on why the average interest rate during the 2-year period differs from the 1-year interest rate expected for year 2.

Ans: (a) 13.01% (b) 8% and 10.01%

Soln

Annualizied yied 2 year T-bond $({_0k_2}) = 12\%$

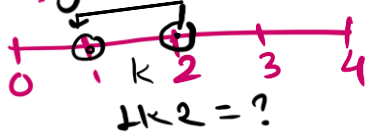
1 year T-bond $({_0k_1}) = 11\%$

risk free rate $(k^*) = 3\%$

MRP = 0

Real

(a) Forcast interest rate. 1 year bond During the 2 year.



By using Expectation theory formula

$$1k_2 = \left[\frac{(1+0k_2)^2}{(1+0k_1)^1}\right]^{\frac{1}{2-1}} - 1$$

$$= \left[\frac{(1+0.12)^2}{(1+0.11)^1}\right]^{\frac{1}{1}} - 1$$

$$= 0.1301 \text{ or } 13.01\% \text{ Ans}$$

(b) Expected inflation rate (I) = ? and I_2 = ?

$0k_1 = k^* + I_1$

$11\% = 3\% + I_1$

$1k_2 = k^* + I_1 + I_2$

$\therefore$ Inflation year 1 8%

Again,

$1k_2 = k^* + I_2$

or, $13.01\% = 3\% + I_2$

$\therefore$ Inflation year 2 is 10.01% Ans

(c) The one year interest rate expected in year 2 is higher than Average int. rate year 2 because of expected increase in future inflation.

interest rate expected for year 2.

10. The yield on 1-year Treasury securities is 5 percent, 2-year securities yield 5.5 percent, and 3-year securities yield 6 percent. There is no maturity risk premium. Using expectation theory, forecast the yields on the following securities:
    a. One-year securities, 1 year from now.
    b. One-year securities, 2 years from now.
    c. Two-year securities, 1 year from now.

Ans: (a) 13.01% (b) 8% and 10.01%

$2k_3 = ?$

Ans: (a) 6% (b) 7.01% (c) 6.5%

$0k_1 = 5\%$, $0k_2 = 5.5\%$, $0k_3 = 6\%$, $MRP = 0$

(a) $1k_2 = ?$

$$1k_2 = \left[\frac{(1+0k_2)^2}{(1+0k_1)^1}\right]^{\frac{1}{2-1}} - 1$$

$$= \left[\frac{1+0.055}{1+0.05}\right]^{\frac{1}{1}} - 1$$

(c) $(1k_3) = ?$

Analytical Answer Questions Ans: 11.02% and 10.21%

12. **2079 Q.No. 18** It is now January 1, 2023. Inflation was about 4 percent, throughout 2022. The government took action to maintain inflation at this level. However, the economy is in a recovery, and reports indicate that inflation is expected to increase during the next 4 years. Assume that 5 percent will be the expected inflation rate for 2023, 6 percent for 2024, 6.5 percent for 2025, and thereafter inflation rate will be stable at 7 percent. [15 marks]

a. What is the average expected inflation rate over the next 4 years period 2023-2026?
b. What average nominal interest rate, over the 4 years period 2023-2026, would be expected to produce 2.5 percent real risk-free rate of return on 4-year Treasury securities?
c. Assume a real-risk free rate of 2.5 percent and a maturity risk premium which starts at 0.04 percent on 1-year security and increases by 0.04 percent each year. Estimate the interest rate in January 2023 on the Treasury securities that mature in 1, 2, 5, 10 and 20 years.
d. Assume that default risk premium associated with a 5-year corporate security is 1.9 percent. What is the yield on 5-year corporate securities?
e. Describe the general economic condition that could be expected to produce an upward sloping yield curve. [3+2+5+2+3]

Ans: (a) 6.125% (b) 8.625% (c) 7.54%; 8.08%; 9.00%; 9.55%; 10.125% (d) 10.9%

Given,
Expected inflation rate for 2023 (I_1) = 5%
" " " 2024 (I_2) = 6%
" " " for 2025 (I_3) = 6.5%
" " " for 2026 ($I_{4-\infty}$) = 7%

a) Average Expected inflation over 4 year:

$$IP_4 = \frac{I_1 + I_2 + I_3 + I_4}{4}$$

$$= \frac{5\% + 6\% + 6.5\% + 7\%}{4}$$

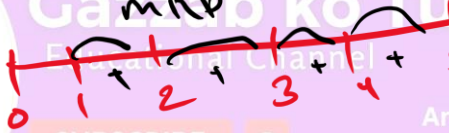
$$= 6.125\% \quad \therefore \text{Ans}$$

(b) Real Risk free rate (k^*) = 2.5%
yield on 4-year treasury security $(0k_4)_{T\text{-sec}} = ?$

Now,

$0k_4 = k^* + IP_4 + MRP_4$
$= 2.5\% + 6.125\% + 0$
$= 8.625\%$ Ans

(c) Real Risk free rate (k^*) = 2.5%
MRP = 0.04% → 0.04% हरेक वर्ष increased by 0.04%.



yield on T-sec. 1, 2, 5, 10, 20 = ?
$0k_1 = ?$, $0k_2 = ?$, $0k_5 = ?$, $0k_{10} = ?$, $0k_{20} = ?$

$0k_1 = k^* + IP_1 + MRP_1$
$= 2.5\% + 5\% + 0.04\%$
$= 7.54\%$

$0k_2 = k^* + IP_2 + MRP_2$
$= 2.5\% + \frac{I_1 + I_2}{2} + 0.04\% * 2$
$= 2.5\% + \frac{5\% + 6\%}{2} + 0.08\%$
$= 8.08\%$

$$ok_5 = k^* + IP_5 + MRP_5$$

$$= 2.5\% + \frac{I_1 + I_2 + I_3 + I_4 + I_5}{5} + 0.04\% \times 5$$

$$= 2.5\% + \frac{5\% + 6\% + 6.5\% + 7\% + 7\%}{5} + 0.2\%$$

$$= 9.1\%$$

$$ok_{10} = k^* + IP_{10} + MRP_{10}$$

$$= 2.5\% + \frac{I_1 + I_2 + I_3 + I_4 \times 7}{10} + MRP_{1\times 10}$$

$$= 2.5\% + \frac{5\% + 6\% + 6.5\% + 7\times 7}{10} + 0.04\times 10$$

$$= 9.55\% \text{ Ans}$$

Hence, ∴ yield on 10 year treasury security bond is 9.55%.

Again, last one $ok_{20} = ?$

$$ok_{20} = k^* + IP_{20} + MRP_{20}$$

$$= k^* + \frac{I_1 + I_2 + I_3 + I_4 \times 17}{20} + 0.04 \times 20$$

$$= 2.5\% + \frac{5\% + 6\% + 6.5\% + 7\% \times 17}{20} + 0.8\%$$

$$= 10.125\%$$

(d) $DRP_{5\ C\text{-}bond} = 1.$

$$Ok_{5\ C\text{-}bond} = k^* + IP_5 + MRP_5 + DRP_5$$
$$= 9\% + 1.9\% + 1.$$
$$= 10.9\%. \quad Ans$$

(c) There are two economy to contributed producing an upward sloping yield curve That are:
a) Increasing inflationary trend in economy
b) MRP on long term unity.

Ans: (a) 6.125% (b) 8.625% (c) 7.54%; 8.08%; 9.00%; 9.85%; 10.125% (d) 10.9%

13. It is now January 1, 2023. Inflation was about 3 percent, throughout 2022. The government took action to maintain inflation at this level. However, the economy is in a recovery, and reports indicate that inflation is expected to increase during the next 4 years. Assume that 4 percent will be the expected inflation rate for 2023, 5 percent for 2024, 6 percent for 2025, and thereafter inflation rate will stable at 6 percent.
   a. What is the average expected inflation rate over the next 4 years period 2023-2026?
   b. What average nominal interest rate, over the 4 years period 2023–2026, would be expected to produce 3 percent real risk-free rate of return on 4-year Treasury securities?
   c. Assume a real-risk-free rate of 3 percent and a maturity risk premium which starts at 0.05 percent on 1-year security and increases by 0.05 percent each year. Estimate the interest rate in January 2023 on the bonds that mature in 1, 2, 5, 10 and 20 years?
   d. Describe the general economic condition that could be expected to produce an upward sloping yield curve.

Ans: (a) 5.25% (b) 8.25% (c) 7.05%; 7.6%; 8.65%; 9.2%; 9.85%

Soln

Same as 2079 Q.N. 12.

Ans: (a) 5.25% (b) 8.25% (c) 7.05%; 7.8%; 8.65%; 9.2%; 9.85%

14. The one-year interest rates over the next five years are expected to be 5%, 6%, 7%, 8%, and 9%. Given this information,
    a. What are the interest rates on a two-year bond and a five-year bond?
    b. Now suppose that investors' preferences for holding short-term bonds have the liquidity premiums for one-year to five-year bonds as 0%, 0.25%, 0.5%, 0.75%, and 1.0% respectively. What is the interest rate on a two-year bond and a five-year bond?
    c. Compare the findings in part (b) with the answer from part (a).

Ans: (a) 5.5%; 6.99% (b) 5.75%; 7.99%

one year interest rate in year 1 ($_0k_1$) = 5%

one year interest rate in year 2 ($_1k_2$) = 6%.

" " " year 3 ($_2k_3$) = 7%.

one year interest rate in year 4 ($_3k_4$) = 8%.

" " " year 5 ($_4k_5$) = 9%.

a) sd^2

The interest rate on a 2-year bond and 5 year bond.

$$_0k_2 = \left[(1+{}_0k_1)(1+{}_1k_2)\right]^{\frac{1}{2}} - 1$$

$$= \left[(1+0.05)(1+0.06)\right]^{\frac{1}{2}} - 1$$

$$= (1.05 \times 1.06)^{1/2} - 1$$

$$= 0.055 \text{ or } 5.5\%$$

b) If liquidity / risk premium (LRP) is 0.25%

$Ok_2 = Ok_2 + LRP$

$= 5.5\% + 0.25\%$

$= 5.75\%$ Ans

Descriptive Answer Questions [10 marks]

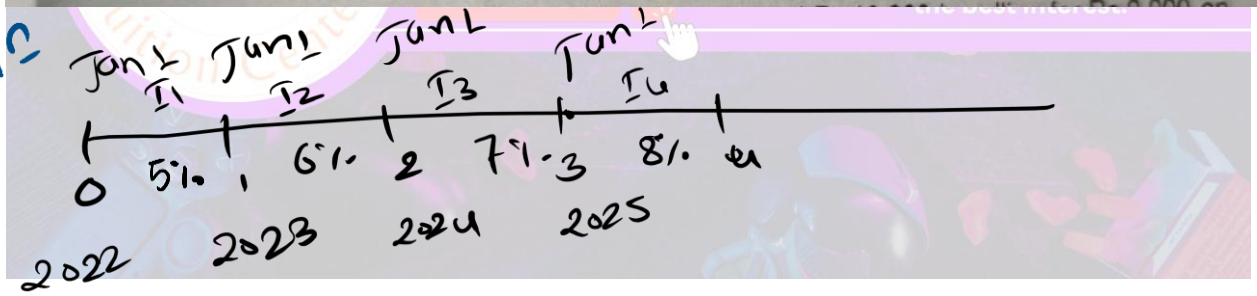
4. 2080 Q.No. 14

Assume that it is now January 1, 2022. The rate of inflation is expected to be 5 percent throughout 2022. Investors expect the inflation rate to be 6 percent in 2023, 7 percent in 2024, and 8 percent in 2025. The real risk-free rate currently is 3 percent. Assume that no maturity risk premium is required on bonds with 5 years or less to maturity. The current interest rate on 5-year T-bonds is 10 percent.

a. What is the average expected inflation rate over the next 4 years?
b. What should be the prevailing interest rate on 4-year T-bonds?
c. What is the implied expected inflation rate in 2026, or year 5, given that bonds, which mature in that year, yield 10 percent?

Ans: (a) 6.5% (b) 9.5% (c) 9%

Soln



Given,

Expected inflation in year 2022 Jan 1 (I_1) = 5%.

" " " " 2023 Jan 1 (I_2) = 6%.

" " " " 2024 Jan 1 (I_3) = 7%.

" " " " 2025 Jan 1 (I_4) = 8%.

Real Risk free rate (K^*) = 3%.

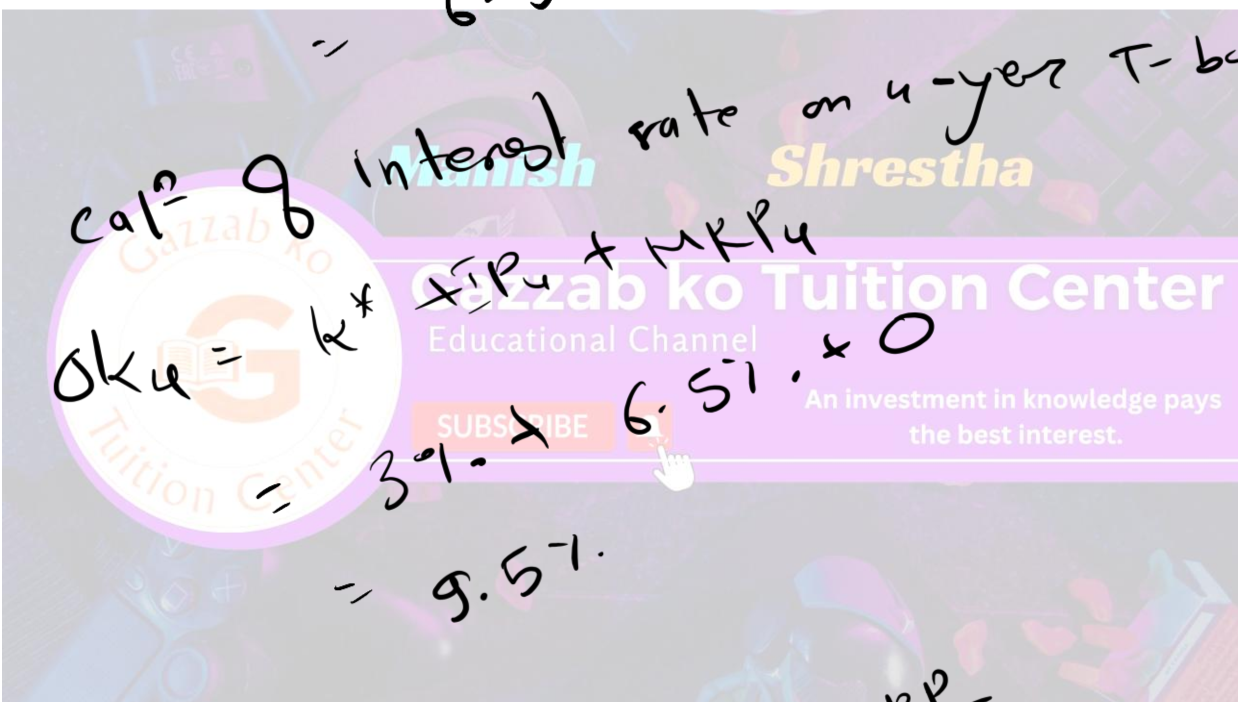
Interest on five year T-bon (Ok_5) = 10%

a) Expected inflation in next 4 years

$$IP_4 = \frac{I_1 + I_2 + I_3 + I_4}{4}$$

$$= \frac{5 + 6 + 7 + 8}{4}$$

$$= 6.5\%$$



b) Cal^n of interest rate on 4-year T-bond

$$ok_4 = k^* + IP_4 + MRP_4$$

$$= 3\% + 6.5\% + 0$$

$$= 9.5\%$$

c) $ok_5 = k^* + IP_5 + MRP_5$

Chapter - 3
Depository Financial Institutions

- Depository Financial Institutions (DFIs) are financial entities that accept deposits from individuals and businesses and use those funds to provide loans, mortgages, and other financial services. Examples include commercial banks, savings and loan associations, and credit unions. These institutions play a crucial role in the economy by facilitating savings, investments, and the flow of money.

जम्मा गर्ने वित्तीय संस्था (Depository Financial Institutions) भनेको त्यस्ता वित्तीय संस्था हुन् जसले व्यक्तिहरू र व्यवसायहरूबाट जम्मा (deposit) स्वीकार गर्छन् र ती जम्मा भएका रकमलाई ऋण, बन्धक (mortgage), र अन्य वित्तीय सेवाहरूको रूपमा प्रदान गर्छन्। व्यावसायिक बैंकहरू, बचत तथा ऋण सहकारी संस्था, र क्रेडिट यूनियनहरू यस प्रकारका वित्तीय संस्थाको उदाहरण हुन्। यी संस्थाहरूले आर्थिक गतिविधिमा महत्वपूर्ण भूमिका खेल्छन् जसले बचत र लगानीलाई प्रवाह गराउँछन्।

Functions of Depository Financial Institutions (DFIs):

1. **Accepting Deposits:** DFIs collect deposits from individuals, businesses, and organizations, providing a safe place to store money.
2. **Providing Loans and Advances:** They use deposited funds to offer loans, mortgages, and advances to individuals and businesses.
3. **Facilitating Payments:** DFIs provide payment services such as issuing checks, debit cards, credit cards, and online banking.
4. **Wealth Management Services:** They offer investment advice, retirement planning, and wealth management solutions.
5. **Safekeeping of Valuables:** DFIs provide locker facilities for storing valuable documents, jewelry, and other assets.
6. **Foreign Exchange Services:** Many DFIs offer currency exchange, foreign remittance, and international trade financing.
7. **Credit Creation:** By issuing loans beyond their reserves, DFIs contribute to the creation of money in the economy.
8. **Promoting Savings and Investments:** DFIs encourage people and businesses to save and invest, fostering economic growth.

जम्मा गर्ने वित्तीय संस्थाहरूका कार्यहरू:

1. **जम्मा स्वीकार गर्नु:** यिनीहरूले व्यक्तिहरू, व्यवसायहरू र संस्थाहरूबाट पैसा जम्मा गर्छन् र सुरक्षित रूपमा राख्छन्।
2. **ऋण र अग्रिम प्रदान गर्नु:** जम्मा भएको रकम प्रयोग गरी व्यक्तिहरू र व्यवसायहरूलाई ऋण, बन्धक र अग्रिम सुविधा दिन्छन्।
3. **भुक्तानीको सुविधा दिनु:** चेक, डेबिट कार्ड, क्रेडिट कार्ड, र अनलाइन बैंकिङ जस्ता भुक्तानी सेवाहरू प्रदान गर्छन्।
4. **सम्पत्ति व्यवस्थापन सेवा:** लगानी सल्लाह, अवकाश योजना, र सम्पत्ति व्यवस्थापन सेवाहरू उपलब्ध गराउँछन्।

5. **बहुमूल्य वस्तुहरूको सुरक्षा:** बहुमूल्य कागजात, गहना, र अन्य सम्पत्ति राख्नका लागि लककर सुविधा दिन्छन्।
6. **विदेशी मुद्रा सेवा:** विदेशी मुद्रा विनिमय, रेमिट्यान्स, र अन्तर्राष्ट्रिय व्यापारको लागि वित्तीय सहायता प्रदान गर्छन्।
7. **ऋण सिर्जना:** जम्मा भन्दा बढी ऋण प्रदान गरेर बजारमा पैसा आपूर्ति बढाउँछन्।
8. **बचत र लगानीको प्रवर्द्धन:** मानिसहरू र व्यवसायहरूलाई बचत र लगानी गर्न प्रेरित गरेर आर्थिक विकासमा योगदान पुऱ्याउँछन्।

In Nepal, depository financial institutions are categorized into four main classes, each serving distinct roles within the financial sector:

1. **Class 'A' – Commercial Banks:** These are the largest financial institutions, offering a comprehensive range of banking services, including accepting deposits, providing loans, and facilitating trade finance. As of mid-January 2025, 20 commercial banks are operating in Nepal.
2. **Class 'B' – Development Banks:** Focused on promoting economic development, these banks provide financial services to sectors such as agriculture, industry, and infrastructure. As of mid-January 2025, there are 16 development banks in Nepal.
3. **Class 'C' – Finance Companies:** These institutions specialize in providing financial services like hire purchase, leasing, and housing loans. As of mid-January 2025, 17 finance companies are operating in the country.
4. **Class 'D' – Microfinance Financial Institutions (MFIs):** Aimed at enhancing financial inclusion, MFIs offer micro-loans and other financial services to low-income individuals and small businesses. As of mid-January 2025, there are 52 microfinance institutions in Nepal.

hese classifications are regulated by the Nepal Rastra Bank, the central bank of Nepal, which oversees their operations to ensure financial stability and growth within the country.

नेपालीमा:

नेपालमा, जम्मा गर्ने वित्तीय संस्थाहरूलाई चार मुख्य वर्गहरूमा वर्गीकृत गरिएको छ, जसले वित्तीय क्षेत्रभित्र विभिन्न भूमिकाहरू निर्वाह गर्छन्:

1. **'कक्षा ए' – वाणिज्य बैंकहरू:** यी सबैभन्दा ठूला वित्तीय संस्थाहरू हुन्, जसले जम्मा स्वीकार गर्ने, ऋण प्रदान गर्ने, र व्यापार वित्तीय सेवाहरू जस्ता व्यापक बैंकिङ सेवाहरू प्रदान गर्छन्। मध्य-जनवरी २०२५ सम्म, नेपालमा २० वाणिज्य बैंकहरू सञ्चालनमा छन्।

2. **'कक्षा बी' – विकास बैंकहरू:** यी बैंकहरूले कृषि, उद्योग, र पूर्वाधार जस्ता क्षेत्रहरूको आर्थिक विकास प्रवर्द्धन गर्न वित्तीय सेवाहरू प्रदान गर्छन्। मध्य-जनवरी २०२५ सम्म, नेपालमा १६ विकास बैंकहरू छन्।
3. **कक्षा सी' – वित्त कम्पनीहरू:** यी संस्थाहरूले हायर पर्चेज, लिजिङ, र आवास ऋण जस्ता वित्तीय सेवाहरूमा विशेषज्ञता राख्छन्। मध्य-जनवरी २०२५ सम्म, देशमा १७ वित्त कम्पनीहरू सञ्चालनमा छन्।

4. **'कक्षा डी' – माइक्रोफाइनान्स वित्तीय संस्थाहरू (एमएफआईहरू):** वित्तीय समावेशीकरण बढाउन लक्षित, एमएफआईहरूले कम आय भएका व्यक्तिहरू र साना व्यवसायहरूलाई साना ऋण र अन्य वित्तीय सेवाहरू प्रदान गर्छन्। मध्य-जनवरी २०२५ सम्म, नेपालमा ५२ माइक्रोफाइनान्स संस्थाहरू छन्।

यी वर्गीकरणहरू नेपाल राष्ट्र बैंकद्वारा नियमन गरिन्छ, जसले देशभित्र वित्तीय स्थिरता र वृद्धिलाई सुनिश्चित गर्नका लागि तिनीहरूको सञ्चालनको निरीक्षण गर्छ।

Types of Commercial Banks and Their Names in Nepal
In Nepal, commercial banks are classified into different types based on their ownership and operations. Here are the major types along with examples:

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1. Public Sector Commercial Banks (Government-Owned)
These banks are fully or partially owned and operated by the Government of Nepal.

- 🏦 **Nepal Bank Limited** (Established in 1937)
- 🏦 **Rastriya Banijya Bank** (Established in 1966)
- 🏦 **Agricultural Development Bank** (Initially a development bank, now operating as a commercial bank)

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2. Private Sector Commercial Banks
These banks are owned by private individuals or institutions and play a dominant role in Nepal's banking sector.

- 🏦 **Nabil Bank Limited**
- 🏦 **Himalayan Bank Limited**
- 🏦 **NIC Asia Bank Limited**
- 🏦 **Global IME Bank Limited**
- 🏦 **Everest Bank Limited**
- 🏦 **Machhapuchchhre Bank Limited**
- 🏦 **Kumari Bank Limited**
- 🏦 **Siddhartha Bank Limited**
- 🏦 **Laxmi Sunrise Bank Limited** (formed after the merger of Laxmi Bank and Sunrise Bank)

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3. Joint Venture Banks
These banks are established in collaboration with foreign banks, bringing in international banking practices and capital.

- 🏦 **Standard Chartered Bank Nepal** (Joint venture with Standard Chartered PLC, UK)
- 🏦 **Nepal SBI Bank Limited** (Joint venture with State Bank of India)
- 🏦 **Everest Bank Limited** (Partnered with Punjab National Bank, India)

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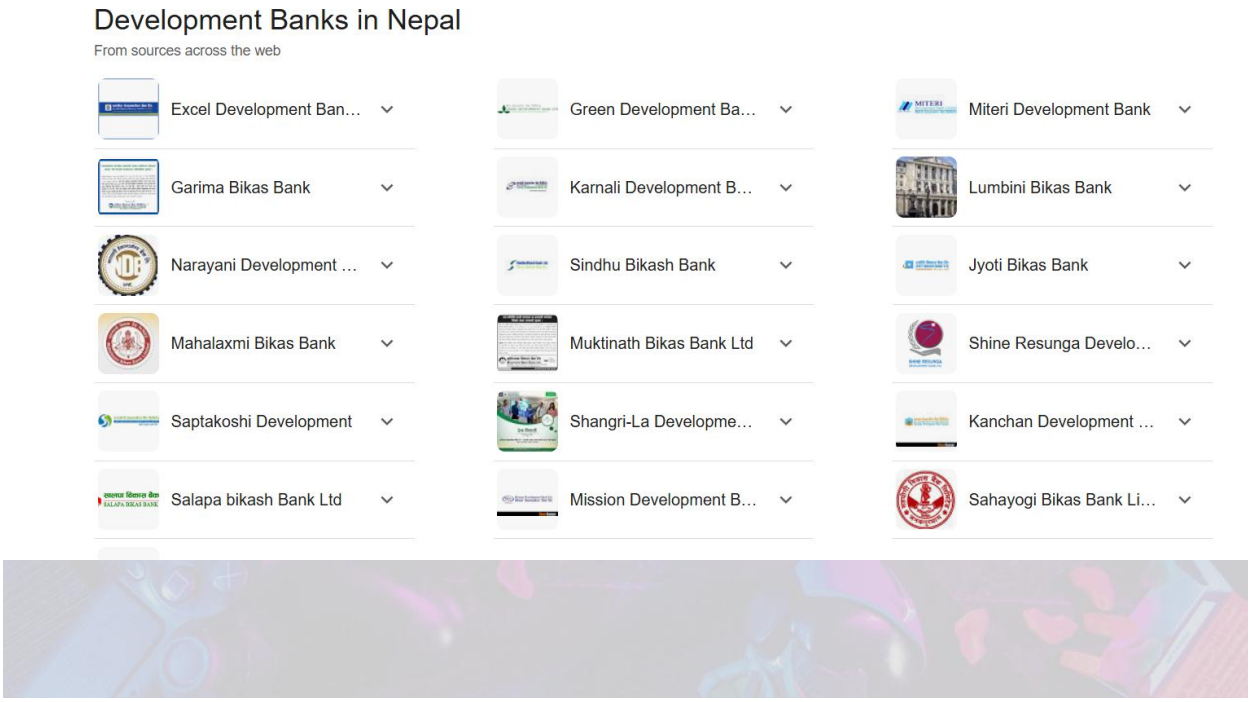
4. Merged/Upgraded Commercial Banks
Due to Nepal Rastra Bank's merger policies, several banks have merged to strengthen their capital base and expand operations.

- 🏦 **Nepal Investment Mega Bank Limited** (Merger of Nepal Investment Bank and Mega Bank Nepal)

- 🏦 **Laxmi Sunrise Bank Limited** (Merger of Laxmi Bank and Sunrise Bank)
- 🏦 **Global IME Bank Limited** (Result of multiple mergers with Commerz and Trust Bank, Janata Bank, etc.)

These commercial banks in Nepal offer a wide range of services, including accepting deposits, providing loans, international trade financing, remittances, and digital banking solutions. All Class 'A' commercial banks are regulated by **Nepal Rastra Bank (NRB)** to ensure stability and security in the country's financial system.

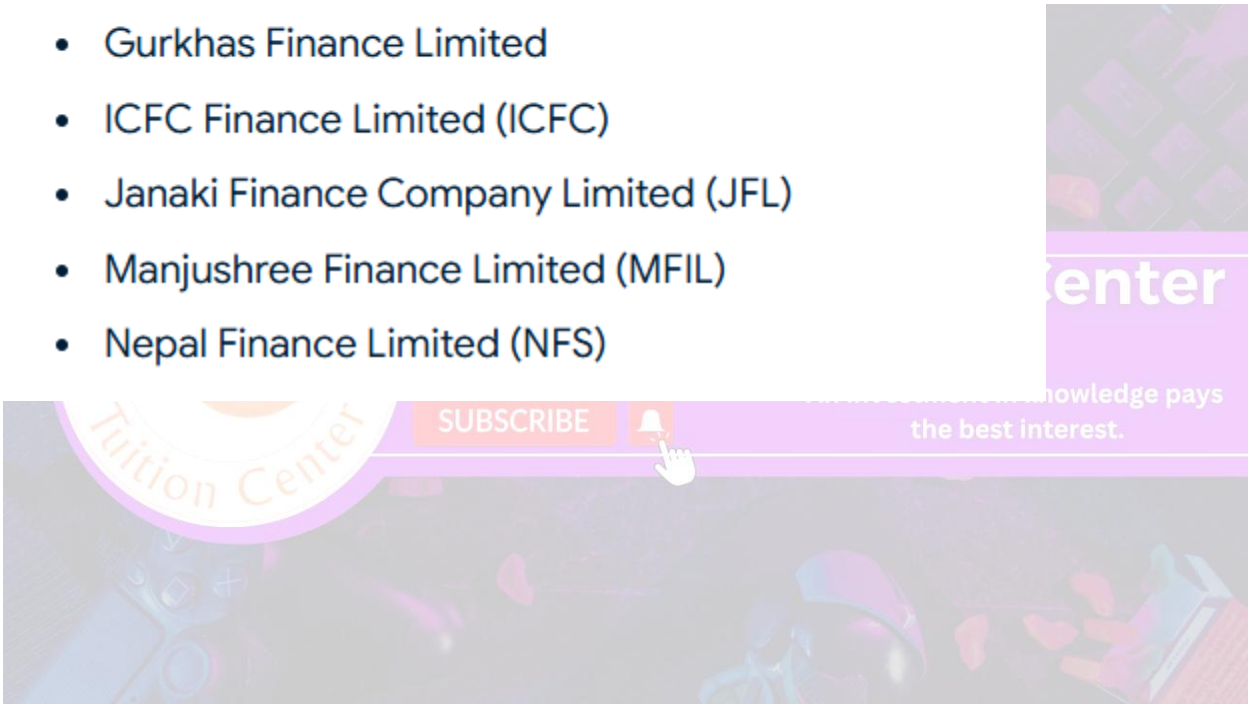
Types of Development Bank in Nepal



Types of Finance Companies in Nepal Current For Example”

C-class finance companies

- Best Finance Company Limited
- Capital Merchant Banking and Finance Limited
- Central Finance Company Limited (CFCL)
- Goodwill Finance Limited (GFCL)
- Guheshwori Merchant Banking & Finance Ltd.
- Gurkhas Finance Limited
- ICFC Finance Limited (ICFC)
- Janaki Finance Company Limited (JFL)
- Manjushree Finance Limited (MFIL)
- Nepal Finance Limited (NFS)



Types of Micro finance company listed in Nepal

Company Name	Symbol	Categories
First Microfinance Bittiya Sanstha Limited	FMDBL	Wholesale microfinance companies
RMDC Laghubitta Bittiya sanstha Limited	RMDC	
RSDC Laghubitta Bittiya Sanstha Limited	RSDC	
Sana Kisan Laghubitta Bittiya Sanstha Limited	SKBBL	
Asha laghubitta Bittiya Sanstha Limited	ALBSL	National level microfinance companies
Chhimek Laghubitta Bittiya sanstha Limited	CBBL	
Civil Laghubitta Bittiya sanstha Limited	CLBSL	
Deprosc Laghubitta Bittiya Sanstha Limited	DDBL	
Forward Community Microfinance Bittiya Sanstha Limited	FOWAD	
Grameen Bikas Laghubitta Bittiya Sanstha Limited	GBLBS	
Kalika Laghubitta Bittiya Sanstha Limited	KMCDB	
Laxmi Laghubitta Bittiya Sanstha Limited	LLBS	
Mero Microfinance Bittiya Sanstha Limited	MERO	
Mahila Sahayatra Microfinance Bittiya Sanstha Limited	MSMBS	
Nerude Laghubitta Bittiya Sanstha Limited	NLBBL	
NMB Microfinance Bittiya Sanstha Limited	NMBMF	
National Microfinance Bittiya Sanstha	NMFBS	
Nirdhan Utthan Laghubitta Bittiya sanstha Limited	NUBL	
Swadeshi Laghubitta Bittiya Sanstha Limited	SDESI	
Swarojgar Laghubitta Bittiya Sanstha Limited	SLBBL	
Swabalamban Laghubitta Bittiya Sanstha Limited	SWBBL	
Vijaya Laghubitta Bittiya Sanstha Limited	VLBS	
Nadep Laghubitta Bittiya Sanstha Limited	NADEP	
Ganapati Microfinance Bittiya Sanstha Limited	GMBSL	
Global IME laghubitta Bittiya Sanstha Limited	GILB	Microfinance company operating in 45 districts
Womi Laghubitta Bittiya sanstha Limited	WOMI	Microfinance company operating in 32 districts
Kisan Microfinance Bittiya Sanstha Limited	KMFL	Microfinance companies operating in 10 to 15 districts
Mithila Laghubitta Bittiya Sanstha Limited	MLBBL	
Mirmire Laghubitta Bittiya Sanstha Limited	MMFDB	
Mahuli Samudayak Bittiya Sanstha Limited	MSLB	
Chautari Laghubitta Bittiya sanstha Limited	CHLBS	
Samudayik Laghubitta Bittiya Sanstha Limited	SLBSL	
Aarambha Microfinance Bittiya Sanstha Limited	AMFI	Microfinance companies operating in 4 to 10 districts
Janautthan Samudaik Laghubitta Bittiya Sanstha Limited	JSLBB	
Nagbeli laghubitta Bittiya Sanstha Limited	NBBL	
Naya Nepal Laghubitta Bittiya Sanstha Limited	NNLB	
Suryodaya Laghubitta Bittiya Sanstha Limited	SLBS	
Samata Laghubitta Bittiya Sanstha Limited	SMATA	
Support Microfinance Bittiya Sanstha Limited	SMB	
Summit Laghubitta Bittiya Sanstha Limited	SMFDB	
Sparsha Laghubitta Bittiya Sanstha Limited	SPBSL	
Unnati Microfinance Bittiya Sanstha Limited	UMB	
Nepal Seva Laghubitta Bittiya Sanstha Limited	NSEWA	Microfinance company operating in 1 to 3 districts

Onsite Supervision

English:
Onsite supervision refers to the direct monitoring and inspection of financial institutions by regulatory authorities (e.g., Nepal Rastra Bank) at the institution's premises. This involves checking the institution's operations, management, financial status, and adherence to regulatory requirements through physical visits and audits.

अनसाइट सुपरिवेक्षण भनेको वित्तीय संस्थाहरूको प्रत्यक्ष निगरानी र निरीक्षण हो, जुन नियामक निकाय (जस्तै, नेपाल राष्ट्र बैंक) द्वारा संस्थाको स्थानमा गरिएको हुन्छ। यसमा संस्थाको सञ्चालन, व्यवस्थापन, वित्तीय स्थिति र नियामक आवश्यकतासँगको अनुपालनको परीक्षण गर्नका लागि भौतिक रूपमा भ्रमण र अडिट गर्नु पर्दछ।

Offsite Supervision

English:
Offsite supervision involves monitoring the financial institutions' activities and performance from a distance, without a physical visit, through the analysis of financial reports, statements, and other documents submitted by the institutions. It helps in early identification of risks and ensures compliance with regulatory standards.

अफसाइट सुपरिवेक्षण भनेको वित्तीय संस्थाहरूको गतिविधिहरू र प्रदर्शनको निगरानी गर्नको लागि भौतिक भ्रमण नगरी संस्थाद्वारा पठाइएका वित्तीय रिपोर्ट, विवरणहरू र अन्य कागजातहरूको विश्लेषण गरेर दूरबाट निगरानी गर्नु हो। यसले जोखिमहरूको प्रारम्भिक पहिचान गर्न मद्दत पुर्याउँछ र नियामक मापदण्डहरूको अनुपालन सुनिश्चित गर्दछ।

Major Products of Depository Institutions

Depository financial institutions, such as commercial banks, savings banks, and credit unions, offer a range of financial products that help individuals and businesses manage their finances. Here are the major products provided by these institutions:

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1. Deposits

- **Savings Accounts**: These accounts allow individuals to save money while earning interest. They are highly liquid, meaning funds can be withdrawn at any time.

- **Current Accounts**: Typically used by businesses and individuals for frequent transactions, these accounts offer easy access to funds but usually do not earn interest.
- **Fixed Deposits (Time Deposits)**: These are deposits made for a fixed term, with a higher interest rate than savings accounts. The funds are locked in until the maturity date.
- **Certificates of Deposit (CDs)**: A type of time deposit with a fixed interest rate and maturity date, typically issued for larger amounts and longer terms.

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2. Loans and Credit

- **Personal Loans**: Loans granted for personal use, such as for purchasing a car, education, or covering unexpected expenses.
- **Mortgages**: Loans taken to purchase real estate, usually with the property itself serving as collateral.
- **Business Loans**: Loans provided to businesses for capital expenditures, expansion, or working capital.
- **Credit Cards**: A revolving credit product that allows cardholders to borrow up to a set limit and pay back in installments or full at the end of each billing cycle.
- **Overdrafts**: A facility that allows account holders to withdraw more money than their current account balance, typically subject to fees or interest.

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3. Investment Products

- **Mutual Funds**: These are pools of funds from multiple investors, managed by a professional fund manager, and invested in a diversified portfolio of stocks, bonds, or other securities.
- **Government Bonds**: Depository institutions may offer bonds issued by governments as a way to invest in low-risk debt securities.
- **Stocks and Equities**: Some depository institutions, especially those with brokerage services, allow customers to invest in the stock market.

---

4. Insurance Products

- **Life Insurance**: Policies that provide financial protection to beneficiaries in case of the policyholder's death.
- **Health Insurance**: Coverage that helps pay for medical expenses.
- **Property Insurance**: Coverage for loss or damage to property, such as home insurance or vehicle insurance.

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5. Foreign Exchange Services

- **Currency Exchange**: Depository institutions provide services for exchanging foreign currencies for international travel or business transactions.
- **Foreign Currency Accounts**: Accounts that allow customers to hold and transact in foreign currencies.

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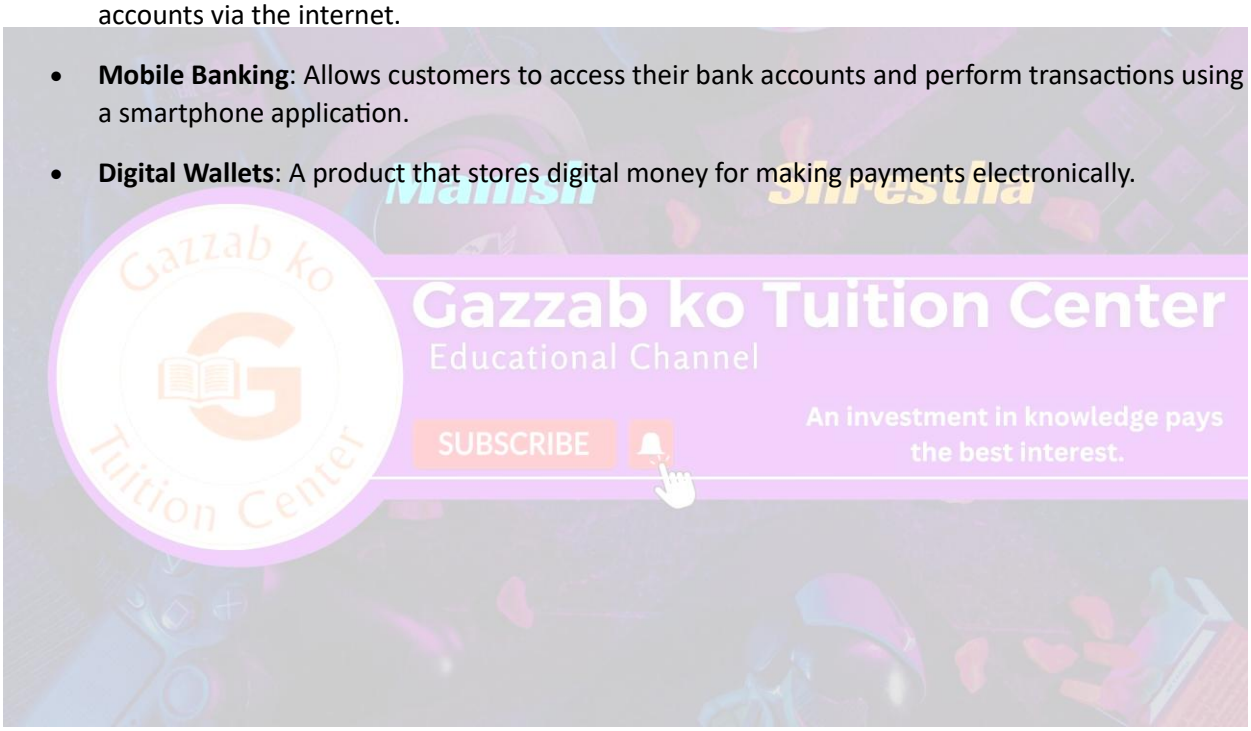
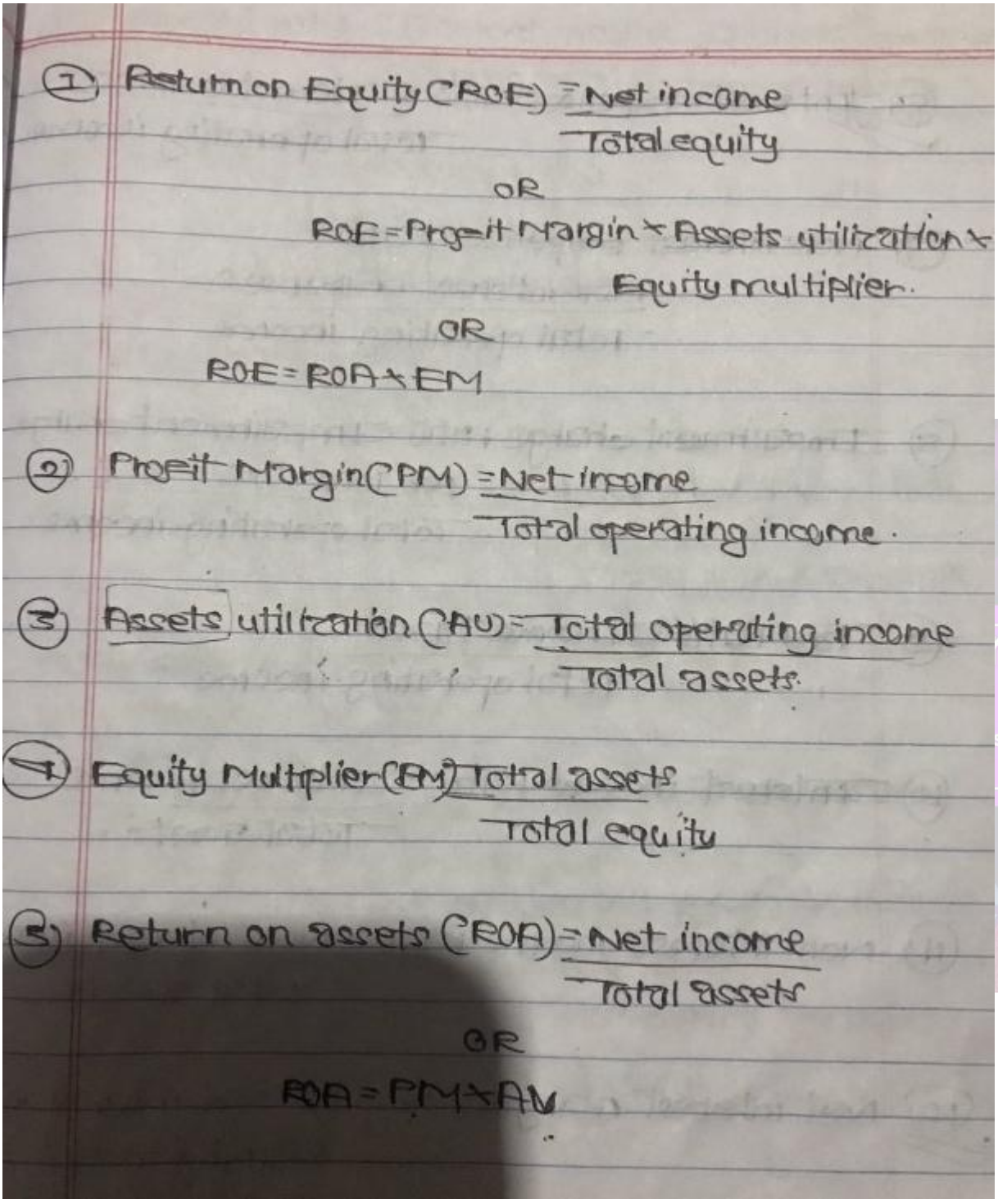
6. Digital Banking Products

- **Online Banking**: Services that allow customers to perform transactions and manage their accounts via the internet.
- **Mobile Banking**: Allows customers to access their bank accounts and perform transactions using a smartphone application.
- **Digital Wallets**: A product that stores digital money for making payments electronically.





1. Return on Equity (ROE) = Net income / Total equity

OR

ROE = Profit Margin × Assets utilization × Equity multiplier.

OR

ROE = ROA × EM

2. Profit Margin (PM) = Net income / Total operating income.

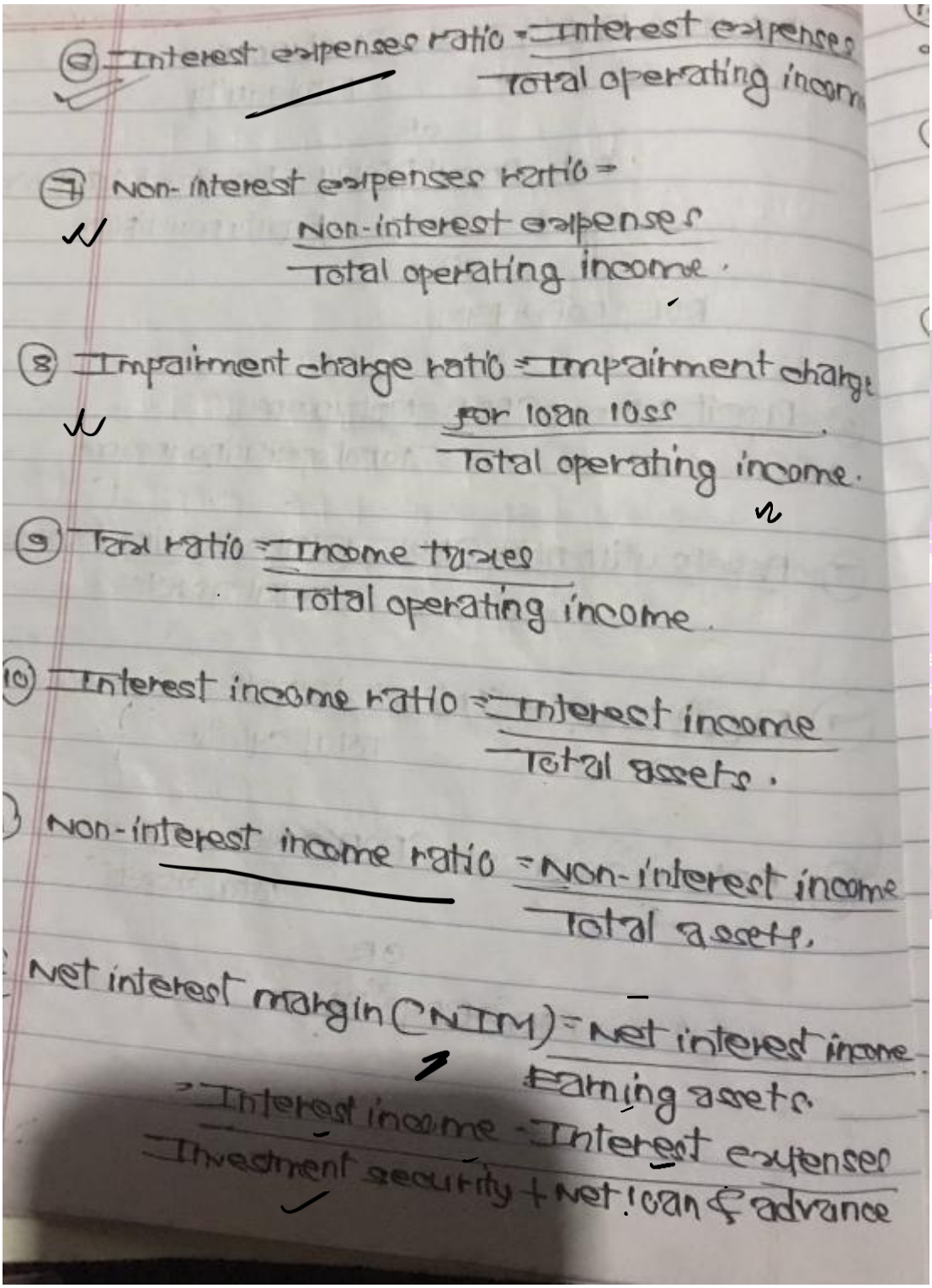
3. Assets utilization (AU) = Total operating income / Total assets.

4. Equity Multiplier (EM) = Total assets / Total equity

5. Return on assets (ROA) = Net income / Total assets

OR

ROA = PM × AU



⑥ Interest expenses ratio = Interest expenses / Total operating income

⑦ Non-interest expenses ratio = Non-interest expenses / Total operating income.

⑧ Impairment charge ratio = Impairment charge for loan loss / Total operating income.

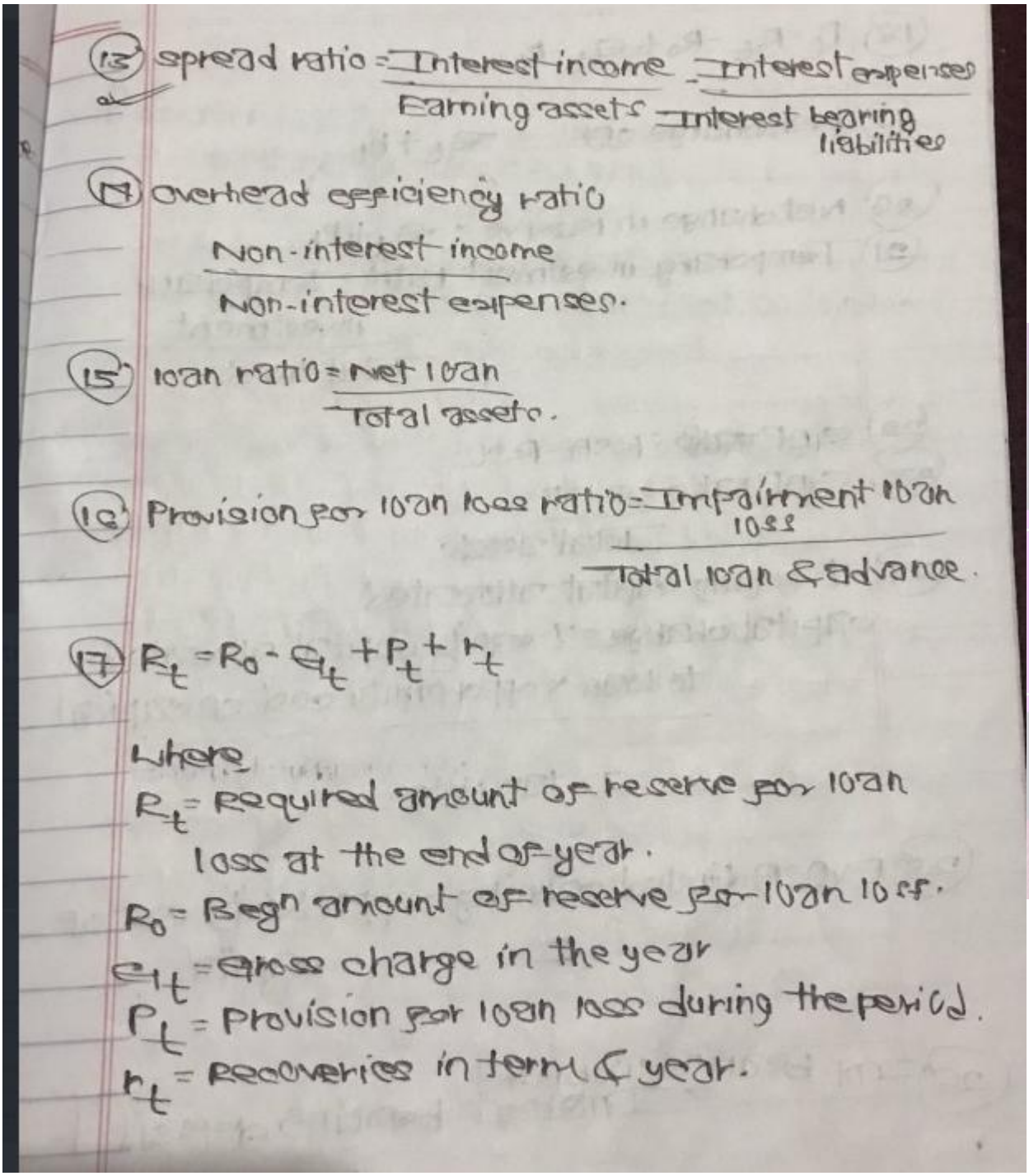
⑨ Tax ratio = Income taxes / Total operating income.

⑩ Interest income ratio = Interest income / Total assets.

Non-interest income ratio = Non-interest income / Total assets.

Net interest margin (NIM) = Net interest income / Earning assets

= Interest income - Interest expenses / Investment security + Net loan & advance



(13) spread ratio = $\frac{\text{Interest income}}{\text{Earning assets}} - \frac{\text{Interest expenses}}{\text{Interest bearing liabilities}}$

(14) overhead efficiency ratio

$$\frac{\text{Non-interest income}}{\text{Non-interest expenses.}}$$

(15) loan ratio = $\frac{\text{Net loan}}{\text{Total assets.}}$

(16) Provision for loan loss ratio = $\frac{\text{Impairment loan loss}}{\text{Total loan \& advance.}}$

(17) $R_t = R_0 - e_t + P_t + r_t$

Where,

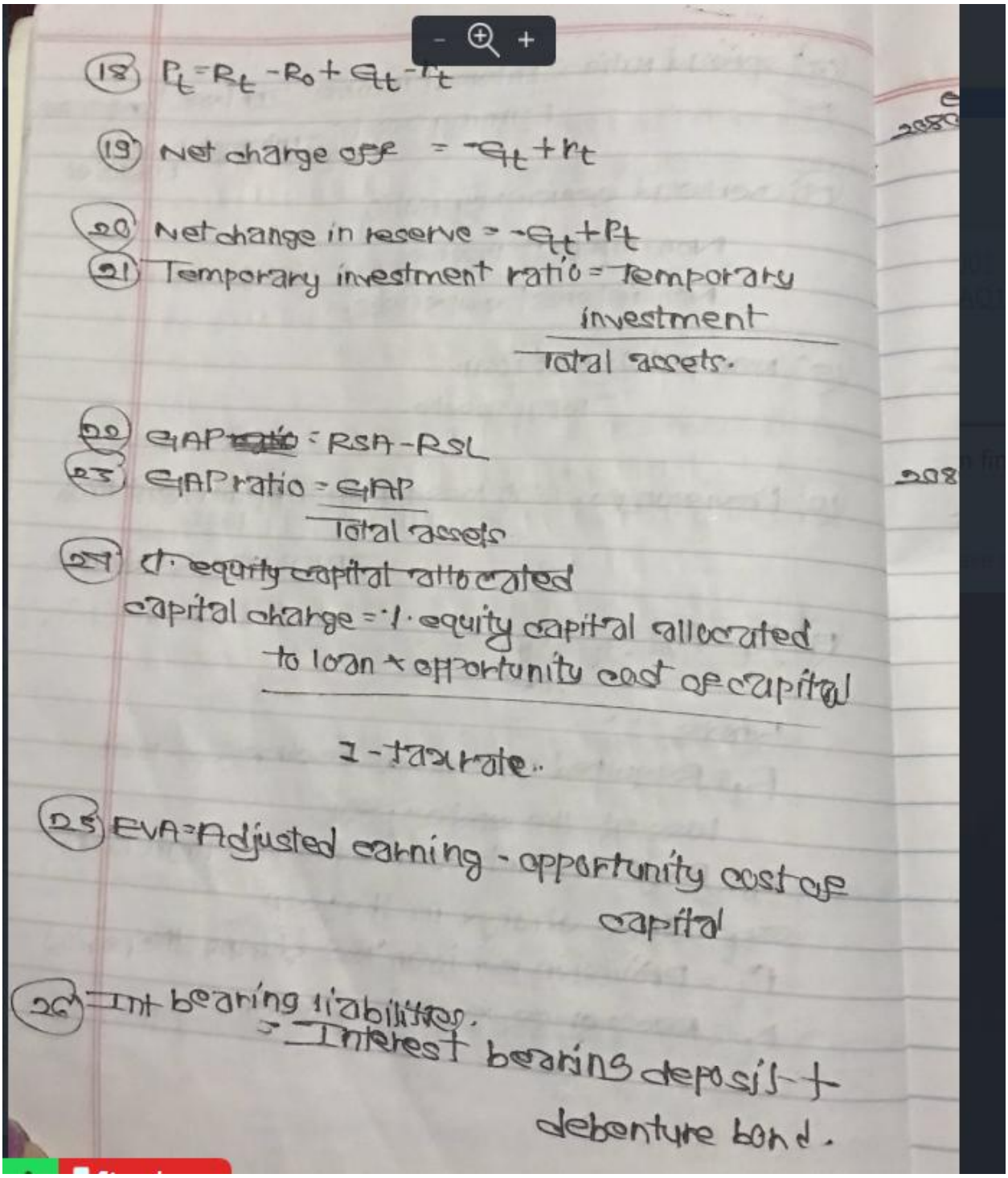
R_t = Required amount of reserve for loan loss at the end of year.

R_0 = Begn amount of reserve for loan loss.

e_t = gross charge in the year

P_t = Provision for loan loss during the period.

r_t = Recoveries in term of year.



(18) $P_t = R_t - R_0 + C_t - I_t$

(19) Net charge off $= -C_t + R_t$

(20) Net change in reserve $= -C_t + P_t$

(21) Temporary investment ratio = $\frac{\text{Temporary investment}}{\text{Total assets.}}$

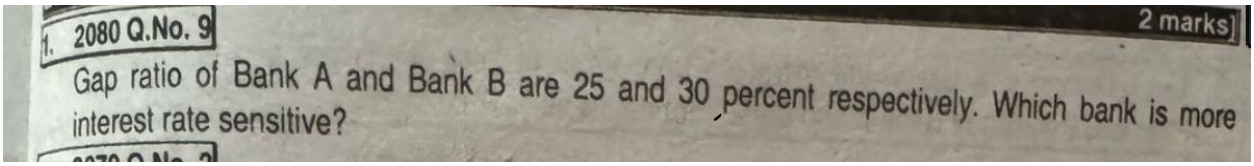
(22) GAP = RSA - RSL

(23) GAP ratio = $\frac{\text{GAP}}{\text{Total assets}}$

(24) capital charge = $\frac{\text{Equity capital allocated to loan} \times \text{opportunity cost of capital}}{1 - \text{tax rate}}$

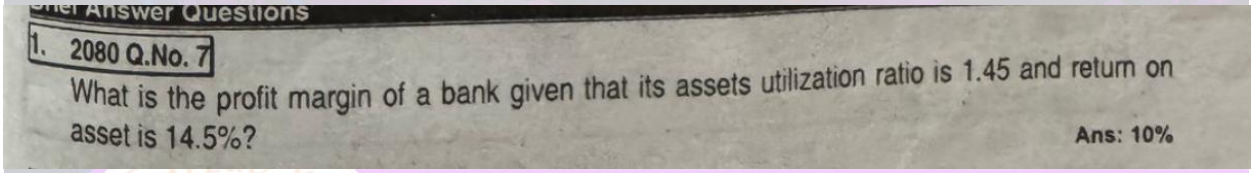
(25) EVA = Adjusted earning - opportunity cost of capital

(26) Int bearing liabilities.
= Interest bearing deposit + debenture bond.


1. 2080 Q.No. 9 2 marks]
Gap ratio of Bank A and Bank B are 25 and 30 percent respectively. Which bank is more interest rate sensitive?

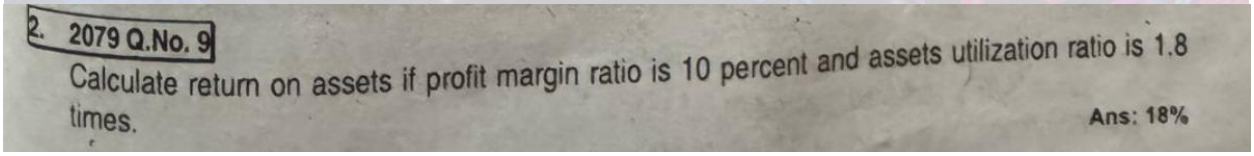
Solution

GAP ratio of Bank A = 25%
Gap Ratio of bank B = 30%
GAP ration measure interest rate of sensitivity the Bank. A higher GAP ratio indicates more interest sensitivity. So, the GAP ratio of Bank B is higher than GAP bank A. Hence, bank B is more sensitive to the rate of interest.


Short Answer Questions
1. 2080 Q.No. 7
What is the profit margin of a bank given that its assets utilization ratio is 1.45 and return on asset is 14.5%? Ans: 10%

Given,

Profit margin PM = ?
Assets utilization ration AU = 1.45 times
Return on assets ROA = 14.5%
Now,
We know that ROA = Pm * AU
14.5% = pm * 1.45%
Pm = 14.5% / 1.45%
Or, PM = 10%
Hence profit margin ratio is 10%.


2. 2079 Q.No. 9
Calculate return on assets if profit margin ratio is 10 percent and assets utilization ratio is 1.8 times. Ans: 18%

ROA = PM * AU
= 10 * 1.8
= 18%

9. 2080 Q.No. 19

The following are the information extracted from financial statement of City Bank and Metro Bank for the fiscal year 2078/79 (in million Rs.)

	City Bank	Metro Bank
Total assets	Rs. 29,000	Rs. 38,000
Non-interest income	350	650
Interest income	4,000	4,500
Interest expenses	2,100	2,900
Loans, advance and bill purchased	21,000	27,000
Investments	5,000	8,000
Interest bearing deposits ✓	24,000	26,000
Debenture and bond ✓	500	600

a. Calculate non-interest income ratio of both banks for the fiscal year 2078/79.
b. Calculate net interest margin ratio of both banks for the fiscal year 2078/79.
c. Calculate spread ratio of both banks for the fiscal year 2078/79.
d. How do you evaluate both bank's performance on the basis of calculated ratios? [4+4+4+3]

Ans: (a) 1.21% and 1.71% (b) 7.31% and 4.57% (c) 6.81% and 1.96%

Soln

(a) Calc of Non-interest income for both bank

City Bank

Non-interest income = Non-interest income / Total Asset

= 350 / 29,000

= 0.0121

= 1.206J%

Metro Bank

Non-interest income = Non-interest income / Total Asset

= 650 / 38,000

= 0.0171

= 1.7105%.

Hence, Non-interest income of both bank i.e city bank or metro bank has 1.206J%. or 1.7105%. respectively in fiscal year 2078/79.

(b) Cal^n of Net interest margin ratio for both bank

For city Bank

$$NIM = \frac{\text{Net interest income}}{\text{Total Earning Asset}}$$

$$= \frac{\text{Interest income} - \text{Interest Exp}^2}{\text{Investment + loan \& Advance}}$$

$$= \frac{4000 - 2100}{5000 + 21,000}$$

$$= 0.0731$$

$$= 7.307\%$$

For metro Bank

$$NIM = \frac{\text{Net interest income}}{\text{Earning Assets}}$$

$$= \frac{\text{Interest income} - \text{Int. Exp}^n}{\text{Investment + loan \& Advance}}$$

$$= \frac{4500 - 2900}{8000 + 27,000}$$

$$= 0.0457$$

$$= 4.571\%$$

∴ Hence, Net interest margin ratio of both bank is 7.037% or 4.571% respectively in City Bank and metro Bank.

(c) Cal^n of spread Ration on Both bank

City Bank

Metro Bank

Spread Ratio for City Bank:

$$\frac{\text{Interest income}}{\text{Earning Asset}} - \frac{\text{Interest Expenses}}{\text{Interest Bearing liability}}$$

$$= \frac{4500}{5000+21,000} - \frac{21,000}{\text{Int. bearing deposit + Bond or debenture}}$$

$$= 0.1538 - \frac{21000}{24000+500}$$

$$= 0.1538 - 0.0857$$

$$= 0.0681 \text{ or } 6.808\%$$

∴ Hence, spread ratio of city bank has 6.808%.

Spread Ratio for metro bank

formula Baki----

$$\text{Spread Ratio} = \frac{4500}{35000} - \frac{2900}{26600}$$

$$= 0.0194 \text{ or } 1.94\%$$

∴ Hence, spread ratio of metro bank has 1.94%.

(d) Bank metro has higher value of non interest income ratio. Higher value of non-interest

income ratio indicate that the management of Bank metro is using it's asset efficiently to generate bank income. Net interest margin measure the net return on the bank earnings Assets. spread ratio.....

5. A commercial bank has Rs 150 million in the reserve for loan loss account on its balance sheet and its management has decided that the minimum adequate reserve is Rs 144 million. Now assume that Rs 15 million of loans are uncollectible and bank management charges these loans off.
   a. How much management should increase the accrued expenses item, to replenish the reserve?
   b. Suppose that bank management charges off Rs 30 million and recovers Rs 15 million. What will be the amount of net charge-off?
   c. What will be the provision for loan losses for the current year if bank maintains the minimum adequate reserve for loan losses assuming that amount of gross charge-off and recovery amount will be as in (b)?
   d. What will be the reserves for loan losses?

Given,
Reserve for loan loss at beginning (R_0) = Rs 150 million
Required reserve for loan loss (R_t) = Rs 144 million
Gross charge off (G_t) = Rs 15 million

a) we know, the required reserve for loan loss is Rs. 144 million. Increase accrued expenses
Required increase in accrued expenses =
Required reserve − Reserve after charge off
= Rs. 144m − Rs 135mi
= Rs. 9 million

Net charge off after = $R_0 - G_t$
= 150 − 15
= Rs 135 million

(b) Gross charge $(G_t) = 30m$

Net Recharge $(Y_t) = G_t - Y_t = 15m$

$= 30 - 15$

$= Rs.\ 15$ million

(c) Previous for loan loss for the year is given,

$P_t = R_t - R_0 + G_t - Y_t$

$= Rs.\ 100 - Rs.\ 150 + 30 - 15$

$= Rs.\ 9$ million

(d) Reserve for loan loss = ?

Now

$R_t = R_0 - G_t + P_t + Y_t$

$= 150 - 30 + 9 + 15$

$= Rs.\ 100$ million Ans//

=

Ans: (a) Rs 9 million (b) Rs 15 million (c) Rs 9 million (d) Rs

6. Calculate the required loan rate from the information given below:

Elements of cost	Cost (in %)
Cost of funds	4.5
Provision for loan losses	1.0
Direct expenses	0.3
Indirect expenses	0.1
Overhead	0.1
Opportunity cost of equity capital	12.0

The tax rate applicable to the bank is 25 percent and equity capital allocated to loan is 20 percent.

a. What is the capital charge?
b. What is total required loan rate?
c. When does bank earn target return on equity?

a) Capital Charge

$$= \frac{\text{\% of equity allocated} \times \text{opportunity cost}}{1 - \text{Tax rate}}$$

$$= \frac{0.20 \times 0.12}{1 - 0.25}$$

$$= 0.032 \text{ or } 3.20\%$$

b) Total required loan rate.

Cost of fund	4.5%
Provision for loan loss	0.1%
Indirect expenses	1.5%
Direct Expenses	0.3%
overhead	0.4%
Total charge before capital charge	6.8%
Add: Capital charge	3.20%
required loan rate	9.2%

Unit – 4 Non-Depository Financial Institution

1. What role does the risk management industry play in the economy?

The risk management industry helps protect individuals and businesses from financial losses. By managing uncertainties, it enhances economic stability, promotes investment, ensures business continuity, and supports the financial system.

---

2. Write the concept and types of non-depository financial institutions.

Concept: Non-depository financial institutions do not accept traditional deposits from the public but provide financial services like investment, insurance, leasing, etc.

Types:

- Insurance companies
- Pension funds
- Mutual funds
- Finance companies
- Investment banks

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3. What do you mean by risk management industry?

It refers to the industry that provides services and solutions to identify, assess, and mitigate financial and operational risks for individuals and organizations.

---

4. What is a mutual fund?

A mutual fund is a pool of money collected from many investors that is managed by a professional fund manager to invest in securities like stocks, bonds, or other assets.

---

5. Write any two differences between open-end and closed-end funds.

Open-End Fund	Closed-End Fund
Shares can be bought/sold at NAV anytime.	Shares are traded on stock exchanges like stocks.
The fund continuously issues new shares.	Fixed number of shares issued initially.

---

6. Differentiate between no-load and load funds.

- **No-load funds:** Do not charge any commission or fee for buying or selling.
- **Load funds:** Charge a commission or fee when shares are bought or sold.

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7. What do you mean by pension fund?

A pension fund is a pool of savings invested to provide retirement income to employees. It collects contributions from employers and/or employees and invests them to generate returns for future pensions.

---

8. Write any two differences between a defined-benefit plan and a defined-contribution pension plan.

Defined-Benefit Plan	Defined-Contribution Plan
Provides fixed retirement income.	Retirement income depends on investment performance.
The employer bears the investment risk.	The employee bears the investment risk.

Q9. Explain the major types of insurance services available in Nepal to manage the risk.

(2079 Q. No. 12)

Answer:

In Nepal, insurance services play a crucial role in managing financial and personal risks. These services are regulated by the **Insurance Board (Beema Samiti)** and provided by various life and non-life (general) insurance companies.

Major Types of Insurance Services Available in Nepal:

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1. Life Insurance

This type of insurance provides financial security to the family of the insured in case of death or at the time of maturity.

Types include:

- **Whole Life Insurance**
- **Endowment Life Insurance**
- **Term Life Insurance**

- **Money Back Policy**
- **Child Insurance Plans**

---

2. Non-Life Insurance (General Insurance)

These insurances protect against losses or damages to assets and liability.

Types include:

- **Motor Insurance** – Covers damages or losses to vehicles.
- **Property Insurance** – Covers buildings, houses, and assets from fire, theft, natural disasters, etc.
- **Travel Insurance** – Provides coverage for risks during travel, like accidents, delays, or medical emergencies.
- **Marine Insurance** – Covers loss or damage to ships and goods during transport over water.
- **Agricultural Insurance** – Covers crops and livestock against natural disasters and diseases.
- **Health Insurance** – Covers medical expenses and hospitalization.
- **Personal Accident Insurance** – Provides compensation for injury, disability, or death due to accidents.

---

3. Micro Insurance

Designed for low-income individuals, micro insurance provides basic coverage at affordable premiums, such as:

- Micro life insurance
- Micro health insurance
- Micro livestock and crop insurance

---

4. Reinsurance

It is the insurance purchased by insurance companies themselves to spread risk. Reinsurance companies in Nepal also support the insurance market stability.

Conclusion:

Insurance services in Nepal help individuals, businesses, and the economy by minimizing financial losses and managing uncertainty. With increasing awareness, both life and non-life insurance sectors are growing to serve various segments of society.

Q10. Define non-depository institutions and explain major types of non-depository institutions.

Answer:

Definition of Non-Depository Institutions:

Non-depository financial institutions are financial entities that do **not accept traditional deposits** (like savings or current accounts) from the public. Instead, they provide various financial services such as **insurance, investment, leasing, and pension management**. They play an important role in mobilizing savings and providing credit in the economy.

Major Types of Non-Depository Institutions:

1. Insurance Companies

- Provide protection against financial losses due to risks like death, accident, fire, and health issues.
- Types: Life insurance companies and general (non-life) insurance companies.

2. Pension Funds

- Collect and invest funds to provide retirement income to employees.
- Examples: Government-managed retirement funds like the **Employees Provident Fund (EPF)** in Nepal.

3. Mutual Funds

- Pools money from multiple investors and invests in diversified portfolios of stocks, bonds, or other securities.
- Managed by professional fund managers.

4. Finance Companies

- Provide financial services like hire purchase, leasing, and loans.
- Do not accept traditional public deposits like banks but play a role in providing credit.

5. Investment Banks

- Help companies raise capital by issuing stocks or bonds.
- Provide advisory services for mergers, acquisitions, and large investments.

---

6. Microfinance Institutions (MFIs)

- Provide small-scale financial services (microloans, insurance, savings) to low-income individuals or groups, especially in rural areas.

Conclusion:

Non-depository institutions are essential for the growth of the financial system. They complement the services of traditional banks by providing a wide range of financial products and services, especially in areas like investment, insurance, and retirement planning.

Definition of Mutual Fund:

A **mutual fund** is a type of investment vehicle that pools money from many investors to invest in a diversified portfolio of securities such as **stocks, bonds, money market instruments**, or other assets. It is managed by professional fund managers who aim to generate returns for the investors.

Types of Mutual Funds:

1. **Equity Mutual Funds:**
    - Invest mainly in **stocks**.
    - Suitable for long-term capital growth.
    - Types include: large-cap, mid-cap, small-cap, and sector funds.
2. **Debt Mutual Funds:**
    - Invest in **fixed income instruments** like government bonds, debentures, and treasury bills.
    - Suitable for investors seeking regular income with lower risk.
3. **Hybrid Mutual Funds:**
    - Invest in both **equity and debt instruments**.

- Offer a balance between risk and return.

4. **Money Market Funds:**
    - Invest in **short-term debt instruments** like treasury bills and certificates of deposit.
    - Low risk and used for short-term investments.
5. **Index Funds:**
    - Track a specific **stock market index** (e.g., Nifty 50, S&P 500).
    - Passively managed with lower fees.
6. **Exchange-Traded Funds (ETFs):**
    - Traded on stock exchanges like shares.
    - Combine the features of mutual funds and stocks.

Definition of Insurance:

Insurance is a **contractual agreement** between an individual (or business) and an insurance company, where the insurer promises to compensate for specific losses in exchange for a **premium**. It is a risk management tool that provides financial protection against **unexpected events** such as death, accidents, illness, fire, or theft.

Types of Insurance:

1. Life Insurance

Provides financial protection to the family of the insured in case of the insured's death or after a certain period.

Examples:

- Whole Life Insurance
- Endowment Policy
- Term Life Insurance
- Child Insurance Plan

2. Non-Life Insurance (General Insurance)

Covers risks other than life, such as property damage, vehicle accidents, fire, health, etc.

Examples:

- Motor Insurance
- Fire Insurance

- Marine Insurance
- Travel Insurance
- Health Insurance

3. Health Insurance

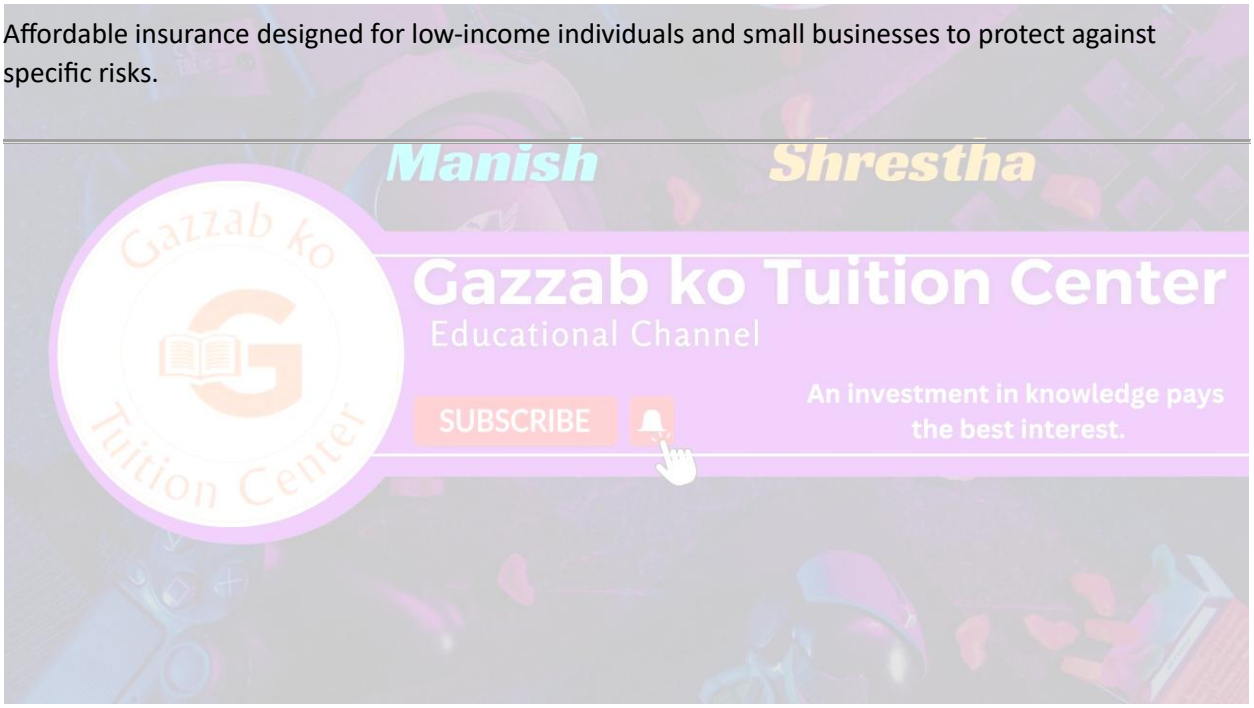
Covers the medical expenses of the insured due to illness or accidents. It reduces the financial burden of healthcare costs.

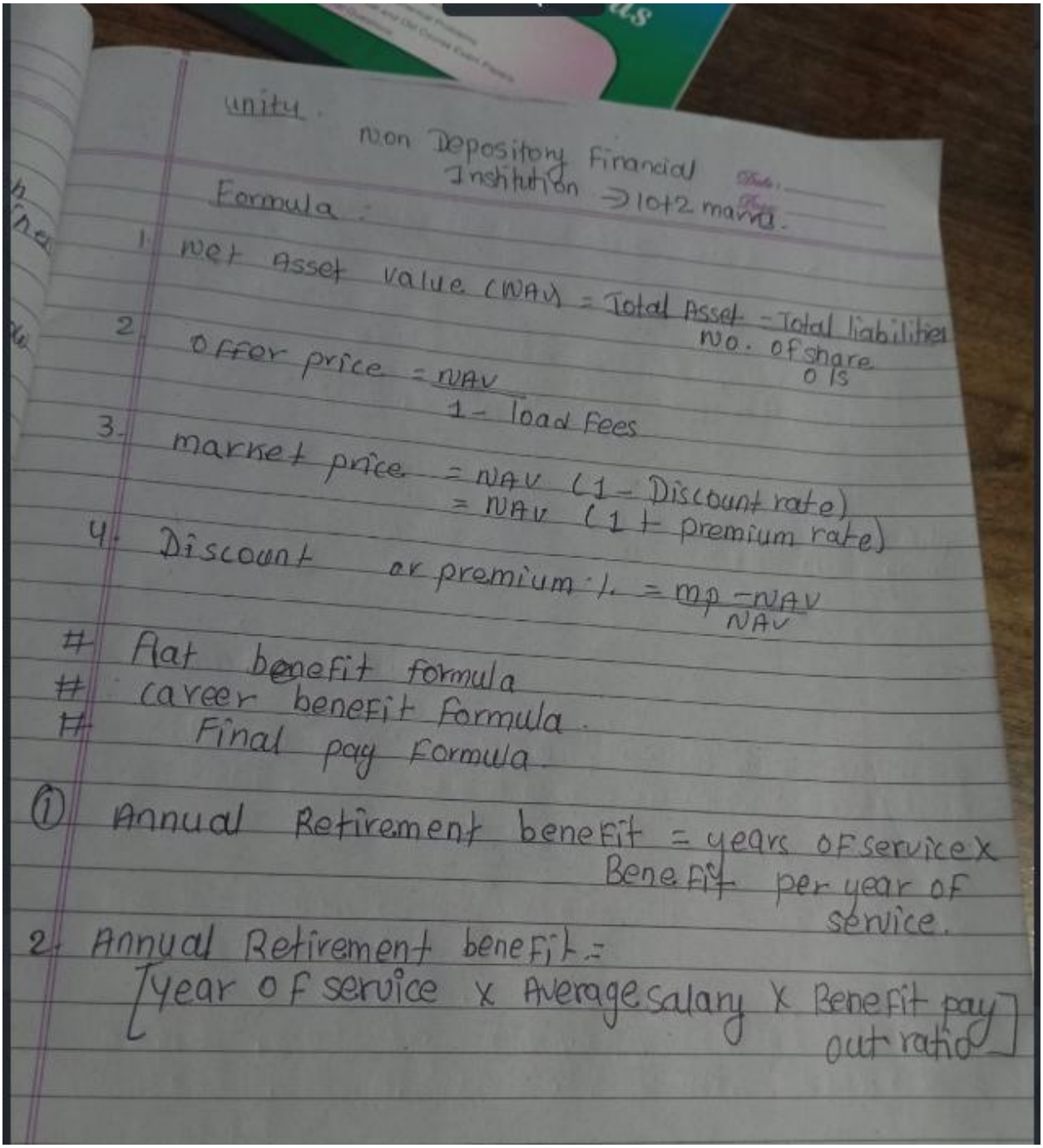
4. Agricultural Insurance

Provides coverage to farmers for crop damage, livestock loss, and natural calamities.

5. Micro Insurance

Affordable insurance designed for low-income individuals and small businesses to protect against specific risks.




unity.

Non Depository Financial Institution ⇒ 1 of 2 marks.

Formula:

1. Net Asset value (NAV) = $\frac{\text{Total Asset} - \text{Total liabilities}}{\text{No. of share o/s}}$

2. Offer price = $\frac{NAV}{1 - \text{load fees}}$

3. market price = NAV (1 − Discount rate)
   = NAV (1 + premium rate)

4. Discount or premium % = $\frac{mp - NAV}{NAV}$

Flat benefit formula
career benefit formula.
Final pay formula.

① Annual Retirement benefit = years of service x Benefit per year of service.

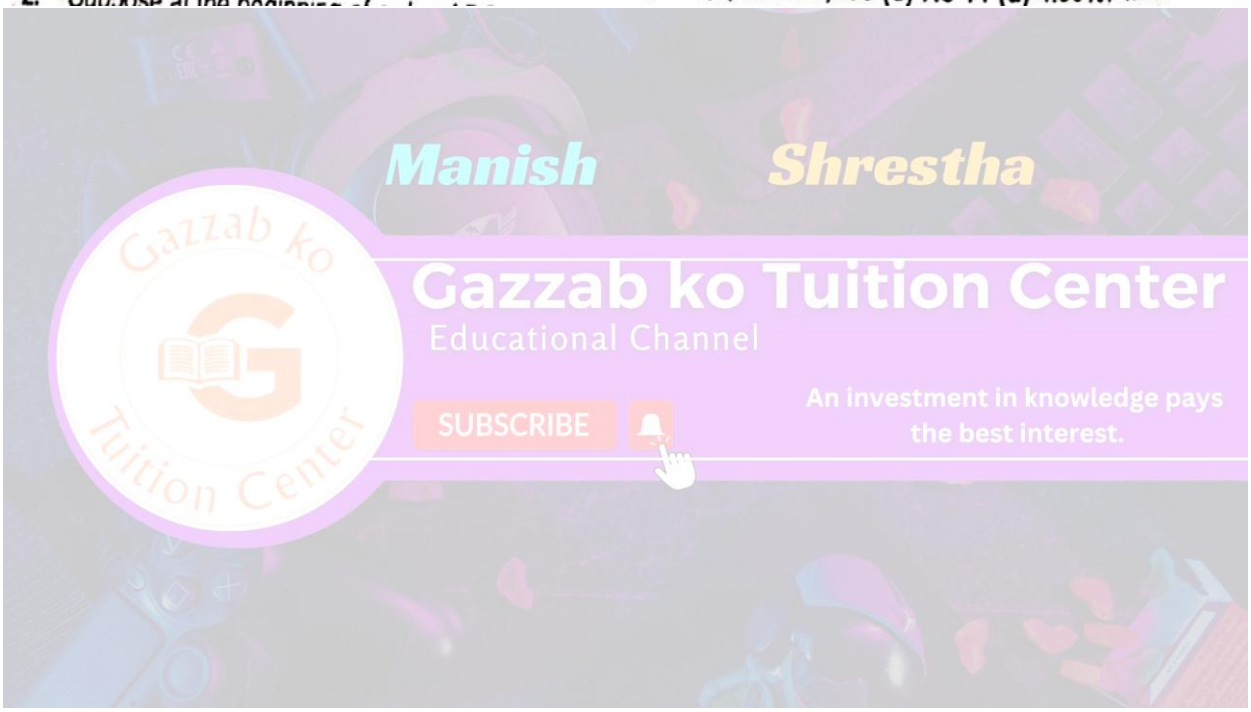
2. Annual Retirement benefit:-
   [year of service x Average salary x Benefit pay out ratio]

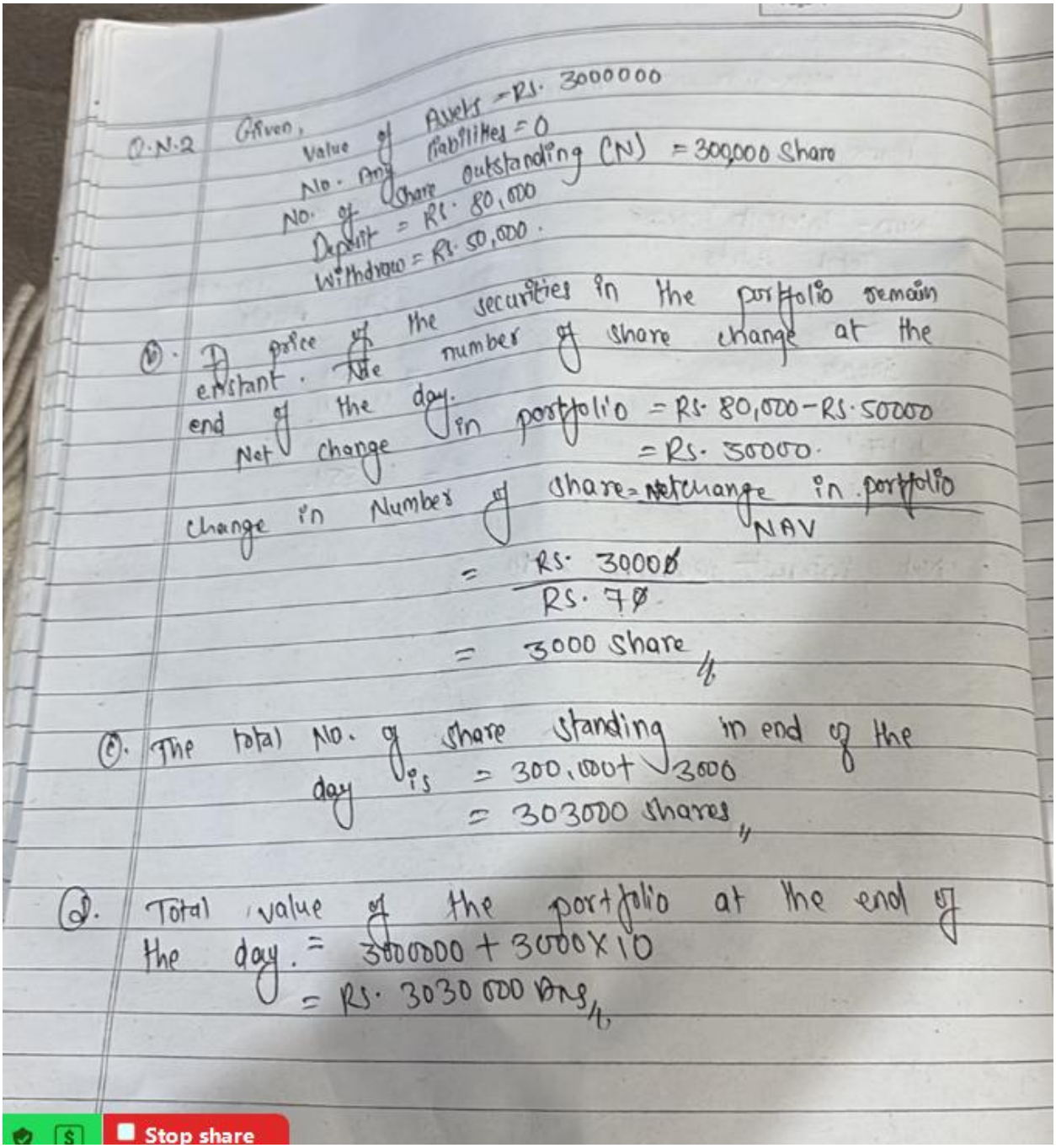
Descriptive Answer Questions [10 marks]

1. ABC Fund, a closed-end fund, consists of three securities: A, B and C. It has 10,000 shares of security A, which is currently trading for Rs 12; 20,000 shares of security B currently trading for Rs 15 and 10,000 shares of security C currently trading for Rs 18. The fund has Rs 50,000 in net liabilities and 50,000 shares outstanding.
   a. What is the value of the portfolio of the company?
   b. What is the net value of the portfolio of the company?
   c. What is the net asset value per share of the company?
   d. Suppose, on July 1, share of ABC Fund is selling for Rs 11.5 in the secondary market and price dropped to Rs 10.5 on July 30, when net asset value per share was Rs 11. What is the premium of share on July 1? What is the discount of shares on July 30?

Ans: (a) Rs 600,000 (b) Rs 550,000 (c) Rs 11 (d) 4.55%; 4.55%

2. Suppose at the beginning of





Q.N.2 Given,
Value of Assets = Rs. 3000000
No. Any liabilities = 0
No. of share outstanding (N) = 300,000 share
Deposit = Rs. 80,000
Withdraw = Rs. 50,000.

(a). Price of the securities in the portfolio remain constant. The number of share change at the end of the day.
Net change in portfolio = Rs. 80,000 - Rs. 50000
= Rs. 30000.
Change in Number of share = Net change in portfolio / NAV
= Rs. 30000 / Rs. 70
= 3000 share //

(b). The total No. of share standing in end of the day is = 300,000 + 3000
= 303000 shares //

(c). Total value of the portfolio at the end of the day. = 3000000 + 30000 x 10
= Rs. 3030 000 Ans //

Stop share

Primary Market Operations Unit-6

1. Define primary market in Nepal with example.

Primary market is the financial market where new securities (shares, debentures, etc.) are issued and sold for the first time to investors. In Nepal, companies issue securities in the primary market to raise capital for business expansion or new projects.

Example: When a Nepali company like **NIFRA** (Nepal Infrastructure Bank Ltd.) issued its shares to the public for the first time through an **Initial Public Offering (IPO)**, it was a transaction in the primary market.

---

2. Write about major functions of primary market.

The major functions of the primary market are:

- **Capital formation**: Helps companies raise long-term funds for expansion and development.
- **Direct investment opportunity**: Investors can directly purchase shares or debentures from issuing companies.
- **Mobilization of savings**: Encourages people to invest their savings in productive ventures.
- **Price discovery**: Helps determine the price of newly issued securities based on market demand.
- **Support for industrial development**: Promotes the growth of industries by providing needed capital.

---

3. How does initial public offerings differ from further public offerings?

Basis	Initial Public Offering (IPO)	Further Public Offering (FPO)
Definition	First-time issue of shares to the public by a company	Additional shares issued after IPO
Company Status	Issued by a private company becoming public	Issued by a company that is already publicly listed
Objective	To raise initial capital and get listed on the stock exchange	To raise more capital for expansion or debt repayment
Investor Attraction	Usually attracts more attention as it's the first chance to invest	May attract existing shareholders or new investors

---

4. Write the meaning of rights offering?

Rights offering is a method by which a company offers additional shares to its existing shareholders at a discounted price, in proportion to their current holdings. It gives existing shareholders the "right" to purchase more shares before the company offers them to the public.

Example: A shareholder owning 100 shares may be offered 10 more shares at a discounted price in a 1:10 rights issue.

BBS 3rd Year New Class New Update Time:

7:00 pm to 8:00 pm – Finance

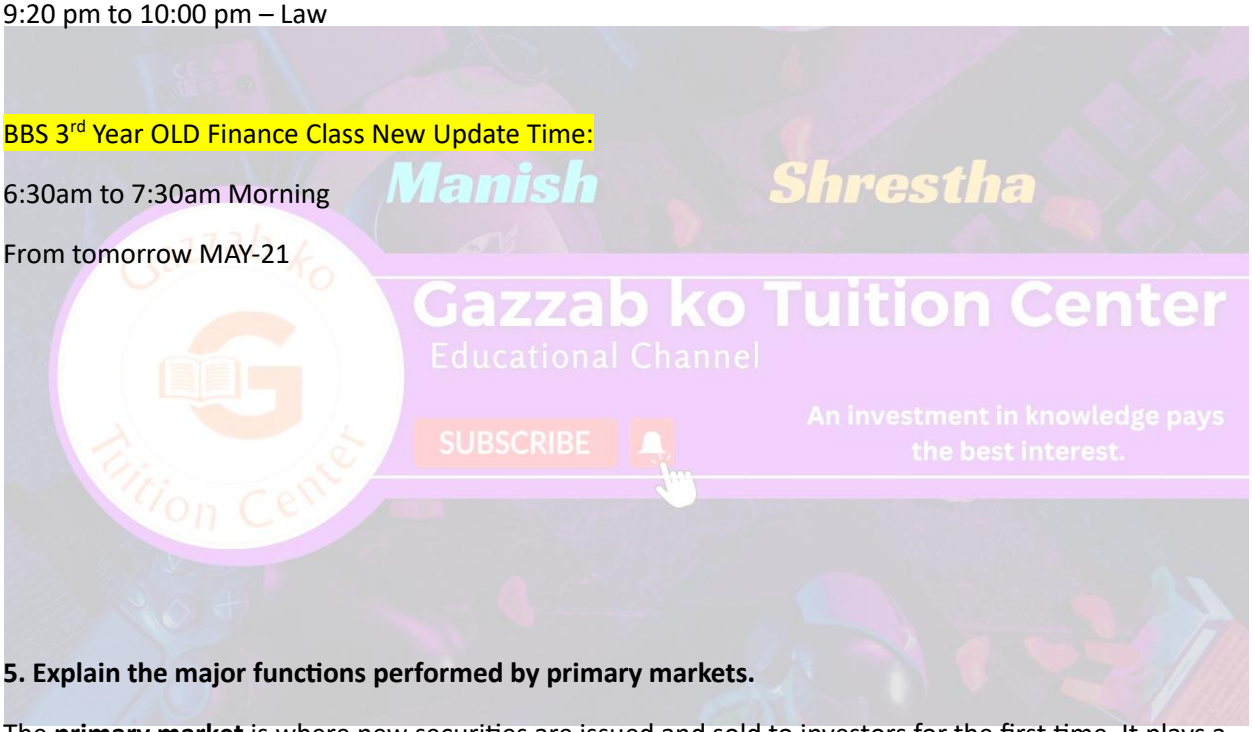
8:00 pm to 9:00 pm – Tax

9:20 pm to 10:00 pm – Law

BBS 3rd Year OLD Finance Class New Update Time:

6:30am to 7:30am Morning

From tomorrow MAY-21



5. Explain the major functions performed by primary markets.

The **primary market** is where new securities are issued and sold to investors for the first time. It plays a vital role in the development of a country's economy by mobilizing savings and converting them into productive investments.

Major functions of primary markets:

1. **Capital Formation**:
   The primary market enables companies to raise funds by issuing shares or debentures. These funds help in business expansion, new projects, and overall economic development.
2. **Facilitating Direct Investment**:
   It offers individuals and institutions the opportunity to invest directly in new issues of securities, allowing them to become part-owners of companies.

3. **Mobilization of Savings**:
   By providing investment avenues, the primary market encourages people to save and invest their money rather than keeping it idle.

4. **Price Discovery**:
   Through mechanisms like book-building, the primary market helps discover the right price of a security based on investor demand.

5. **Industrial Growth**:
   Funds raised in the primary market are often used for starting new industries or expanding existing ones, thereby promoting industrialization.

6. **Encouraging Transparency and Regulation**:
   Companies issuing securities in the primary market must comply with regulatory guidelines (like SEBON in Nepal), which promotes good governance and transparency.

---

6. What are the methods of issuing securities in primary markets?

There are several methods used by companies to issue securities in the primary market. Each method has its own process and purpose depending on the company's goals and the nature of the security.

Methods of Issuing Securities:

1. **Public Issue (Initial Public Offering - IPO):**
   A company issues shares to the general public for the first time through an IPO. This is the most common method for raising capital and getting listed on a stock exchange.

2. **Rights Issue:**
   Existing shareholders are given the right to purchase additional shares in proportion to their current holdings at a discounted price. This method is used to raise further capital without diluting ownership.

3. **Private Placement:**
   Securities are sold directly to a small group of institutional or wealthy investors. It is a faster and less regulated method compared to a public issue.

4. **Preferential Allotment:**
   Shares are allotted to select investors (such as promoters, banks, or financial institutions) at a pre-decided price. This method is often used to raise funds quickly.

5. **Offer for Sale:**
   In this method, promoters or existing shareholders sell their shares to the public through an intermediary. Though the company does not get any fresh capital, it helps in broadening the investor base.

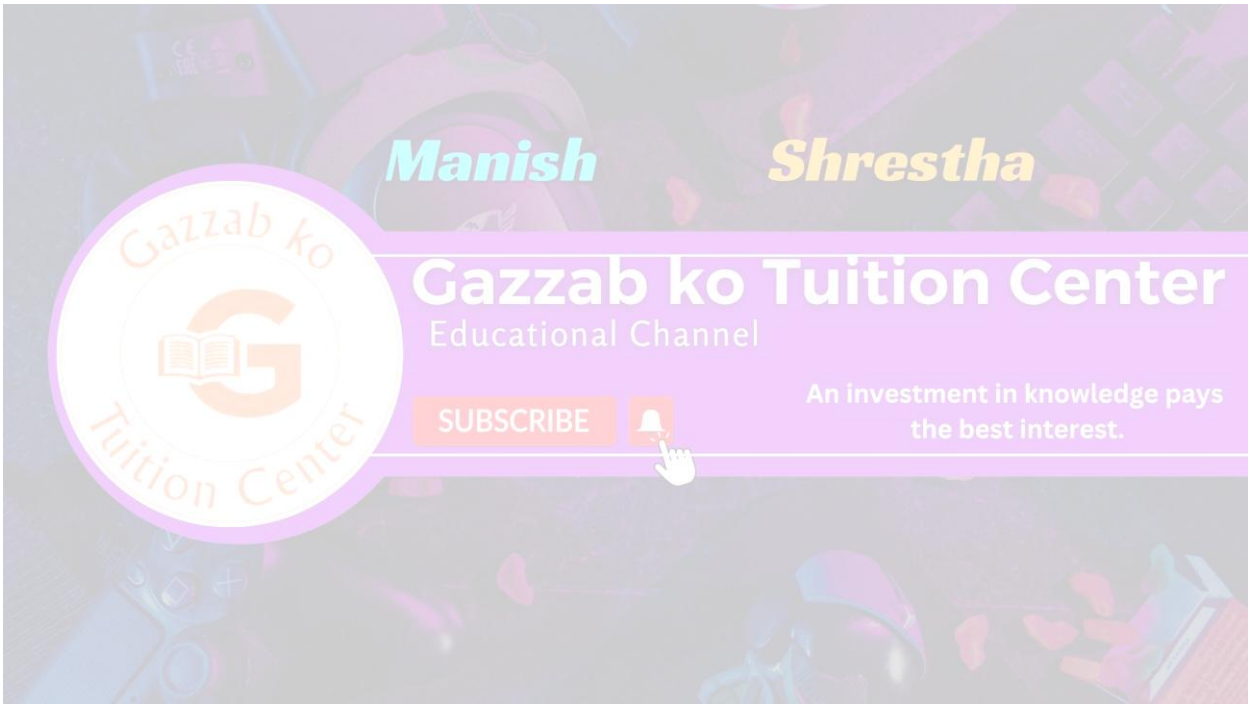
---

7. Describe the process of initial public offerings (IPO).

An **Initial Public Offering (IPO)** is the process through which a private company offers its shares to the public for the first time and becomes a publicly traded company. It allows the company to raise equity capital from investors.

Process of Initial Public Offering:

1. **Decision to Go Public:**
   The company's board decides to raise capital through IPO to fund expansion, reduce debt, or achieve other business goals.
2. **Appointment of Intermediaries:**
   The company hires merchant bankers, underwriters, legal advisors, and auditors to assist with the IPO process.
3. **Regulatory Approval:**
   The company files a draft prospectus with **SEBON (Securities Board of Nepal)**, which contains detailed information about the business, financials, risks, and usage of funds. SEBON reviews and approves the issue.
4. **Pricing the Issue:**
   The company sets the price of the share through **fixed pricing** or **book building** based on market demand.
5. **Marketing the IPO (Roadshows):**
   The company and its advisors promote the IPO to attract potential investors through advertisements, presentations, and meetings.
6. **Opening of IPO for Subscription:**
   The shares are opened for subscription for a specific period. Investors apply through banks and financial institutions (ASBA process in Nepal).
7. **Allotment of Shares:**
   Based on the number of applications received, shares are allotted. If oversubscribed, allotment is done through lottery or pro-rata basis.
8. **Listing on Stock Exchange:**
   After successful allotment, the shares are listed and traded on the **Nepal Stock Exchange (NEPSE)**.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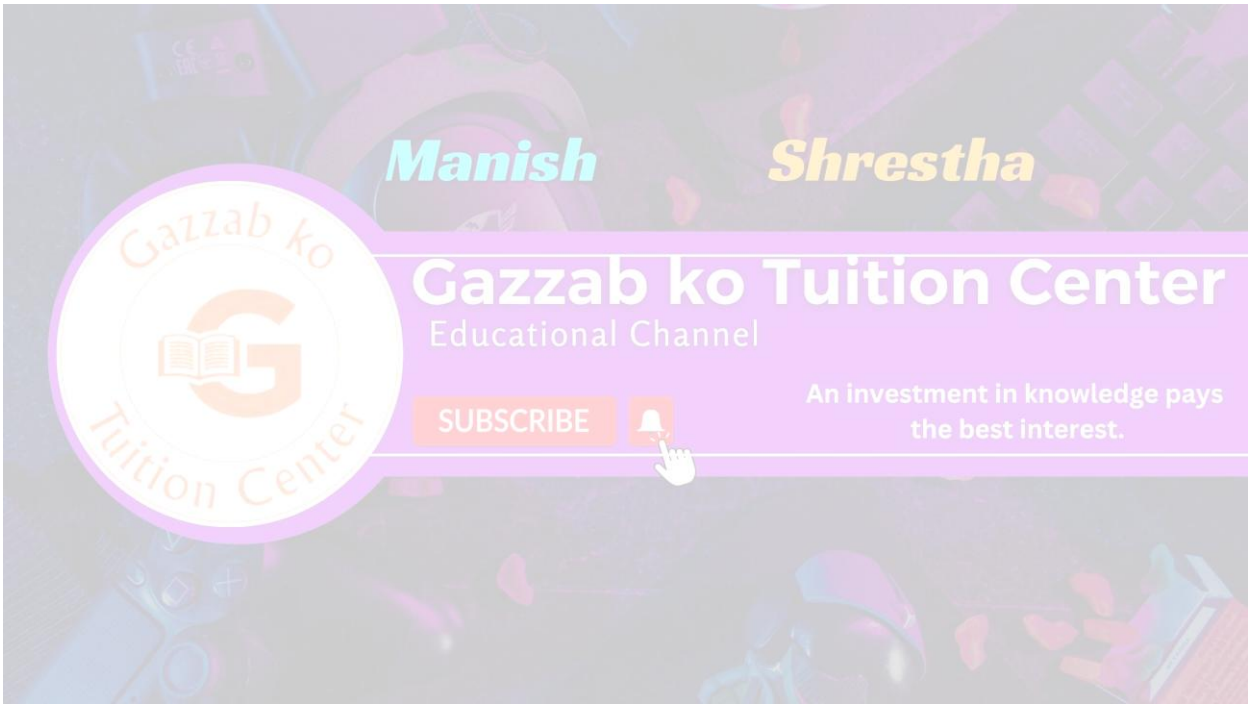
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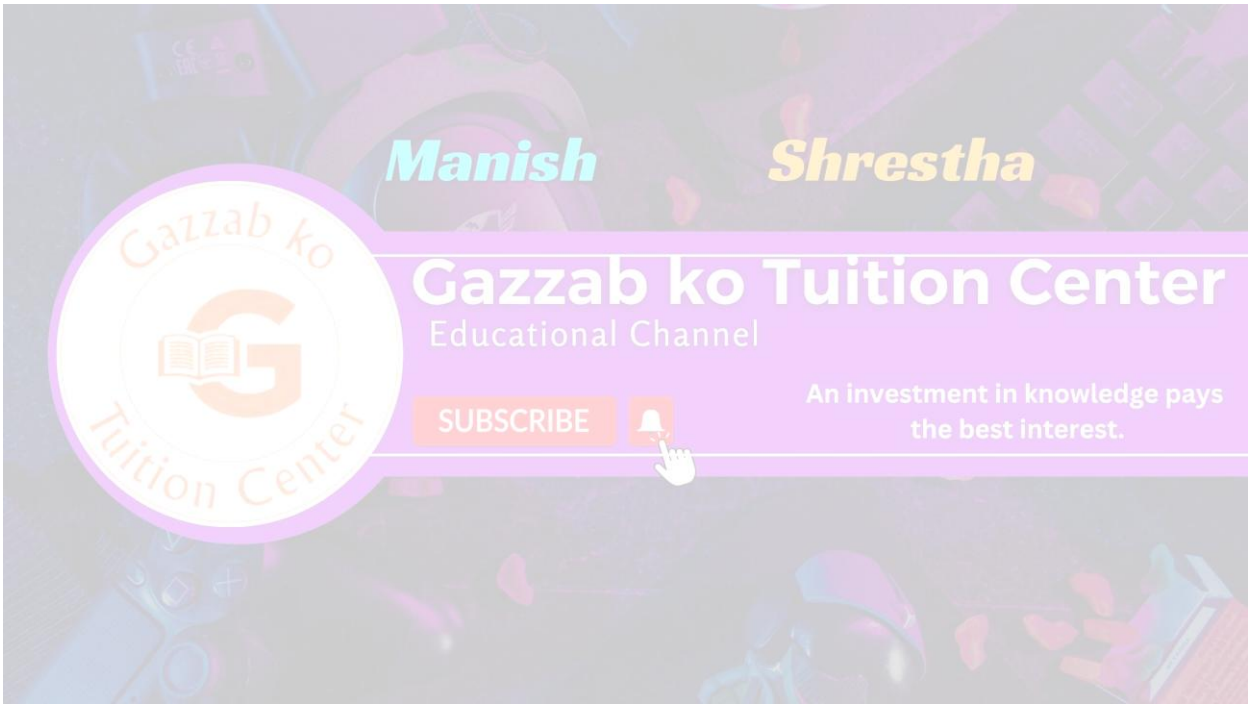
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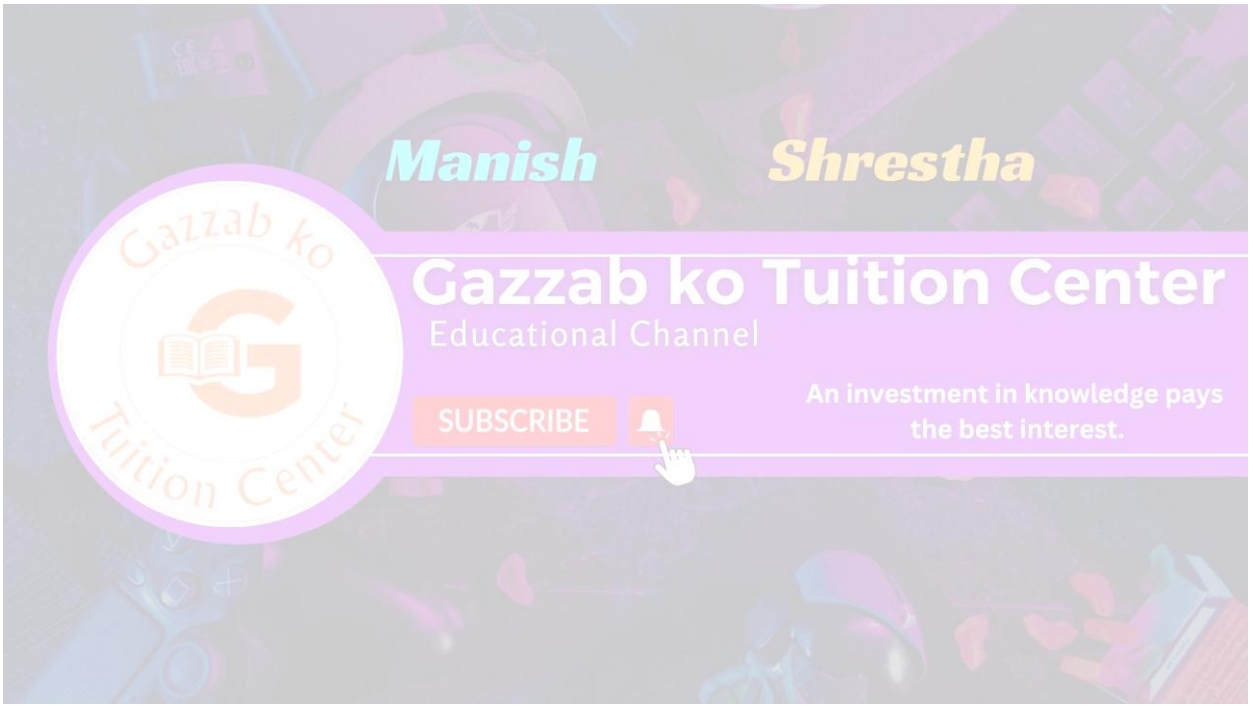
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