Skillshort

Self-Study Preparation Pack

CMA FOUNDATION

Paper 4: Fundamentals of Business Economics and Management (FBEM)

Module-wise Detailed Notes

For December 2026 and June 2027 terms · ICMAI Syllabus 2022 · Section A Economics 70% · Section B Management 30%

50 MCQs × 2 marks | 1 hour (Papers 3 + 4 in one 2-hour session) | No negative marking | Mostly theory MCQs

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This subject pack has 6 parts

1 Chapter-wise notes
2 Important topics & weightage
3 Past papers: trends & links
4 Mock tests + solutions
5 Chapter practice questions
6 Last-week plan & strategy

Prepared by Skillshort for self-study. Original explanations and questions; not an official ICAI/ICMAI/ICSI publication. Items marked VERIFY should be checked against the latest official material.

How to use these notes

Paper 4 is a **theory-MCQ paper**: definitions, who-said-what, classifications and a few small numericals (elasticity, costs, money multiplier). Each module gives the concepts in tables and one-liners. Read a module, then do its set in file 05 the same day.

File	Use it for
01 Module Notes (this file)	Concepts, definitions, tables and one-liners
02 Important Topics & Weightage	Official weightage vs the June 2026 paper
03 Past Papers – Trend Analysis & Links	ICMAI question patterns and official links
04 Mock Tests 1–3 with Solutions	Three full 50-MCQ papers with explanations
05 Module-wise Practice Questions	MCQs module by module with explanations
06 Last-Week Plan & Exam Strategy	Revision plan, one-liner sheet, exam-hall plan

Paper at a glance

Item	Detail
Marks / questions	100 marks · 50 MCQs × 2 marks · **no negative marking** (Q51–100 of the afternoon OMR booklet)
Time	1 hour per paper; Papers 3 and 4 share the 2:00–4:00 pm session VERIFY
Section A – Business Economics (70%)	Basic Concepts 15% · Forms of Market 20% · Money and Banking 20% · Economic and Business Environment 15%
Section B – Management (30%)	Fundamentals of Management 30%

Module 1: Basic Concepts of Economics

1.1 Meaning, definitions and scope

Economics studies how people, firms and governments **choose** to use **scarce resources** that have **alternative uses** to satisfy **unlimited wants**.

Definition	Economist	Key idea
Wealth definition (1776)	**Adam Smith** – *Wealth of Nations*	Economics is the science of wealth
Welfare definition (1890)	**Alfred Marshall** – *Principles of Economics*	Study of mankind in the ordinary business of life; material welfare
Scarcity definition (1932)	**Lionel Robbins**	"Economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses"
Growth definition	**Paul Samuelson**	How society chooses to use scarce resources to produce goods over time and distribute them

Microeconomics vs macroeconomics

Basis	Microeconomics	Macroeconomics
Meaning	Study of individual units – consumer, firm, industry	Study of the economy as a whole
Main concern	Price determination and resource allocation	National income, employment, inflation, growth
Also called	Price theory	Income and employment theory
Tools	Demand and supply of a commodity	Aggregate demand and aggregate supply
Examples	Price of rice, wage of a worker, output of a firm	GDP, general price level, unemployment rate
Term introduced by	Ragnar Frisch (1933)	Ragnar Frisch

- **Wealth** in economics = goods that have **utility, scarcity, transferability** and are external to the person (skills are personal, not wealth in this sense).
- **Utility** = want-satisfying power of a good; it is subjective, relative and not the same as usefulness.

1.2 Scarcity, choice and the central problems

- **Scarcity** – resources (land, labour, capital, entrepreneurship) are limited relative to wants.
- **Choice** – because of scarcity, we must choose what to produce and consume.
- **Opportunity cost** – the value of the **next best alternative** given up. If a farmer grows wheat instead of rice on a plot, the rice he could have grown is the opportunity cost of wheat.

Central problems of an economy

1. **What to produce** (and how much).
2. **How to produce** (labour-intensive or capital-intensive technique).
3. **For whom to produce** (distribution of income).
4. Problems of **full employment** and **growth** of resources.

Production possibility curve (PPC)

A **PPC** shows the various combinations of two goods that an economy can produce with given resources and technology, using them fully and efficiently.

Combination	Wheat (lakh tonnes)	Cloth (lakh metres)	MRT (wheat given up per extra unit of cloth)
A	15	0	–
B	14	1	1
C	12	2	2
D	9	3	3
E	5	4	4

Combination	Wheat (lakh tonnes)	Cloth (lakh metres)	MRT (wheat given up per extra unit of cloth)
F	0	5	5

- PPC is **concave to the origin** because of **increasing opportunity cost** (rising marginal rate of transformation) – resources are not equally efficient in all uses.
- A point **inside** the PPC shows unemployment/inefficiency; a point **outside** is unattainable.
- **Shift outward** – growth of resources or better technology.

1.3 Demand

Demand is the quantity of a commodity that a consumer is **willing and able** to buy at a given price during a given period. Desire + ability to pay + willingness to pay = demand.

Determinants of demand

Price of the good, income of the consumer, prices of related goods (substitutes and complements), tastes and preferences, expectations of future prices, population, distribution of income, government policy, climate and season.

√× FORMULA Demand function

Dx = f(Px, Y, Pr, T, E, N) – demand for X depends on its price, income, related prices, tastes, expectations and number of buyers

Law of demand

Other things remaining the same (ceteris paribus), the quantity demanded of a commodity rises when its price falls and falls when its price rises. There is an **inverse relationship** between price and quantity demanded; the demand curve **slopes downward** from left to right.

Price (₹ per kg)	Quantity demanded (kg)
50	1
40	2
30	3
20	4
10	5

Why does the demand curve slope downward?

- **Law of diminishing marginal utility** – consumer buys more only at a lower price.
- **Income effect** – a fall in price increases real income.
- **Substitution effect** – the good becomes cheaper relative to substitutes.
- **New buyers** enter the market at lower prices.
- **Multiple uses** – at lower prices the good is used for less important purposes too.

Exceptions to the law of demand

- **Giffen goods** – inferior staple goods where the negative income effect outweighs the substitution effect (*Sir Robert Giffen* – bread in 19th-century Britain).
- **Veblen / status goods** – articles of conspicuous consumption (diamonds) bought more at higher prices (*Thorstein Veblen*).
- **Expectation of future price rise** – people buy more even when price rises (e.g. shares, gold).
- **Ignorance** – quality judged by price.
- **Necessities** – essential goods like salt, life-saving drugs (demand almost unchanged).

Change in quantity demanded vs change in demand

Basis	Change in quantity demanded (movement)	Change in demand (shift)
Cause	Change in the **price** of the good only	Change in **other factors** (income, tastes, related prices)
Graph	Movement **along** the same demand curve	**Shift** of the whole demand curve

Basis	Change in quantity demanded (movement)	Change in demand (shift)
Terms	Extension (price falls) / contraction (price rises)	Increase (shift right) / decrease (shift left)

Types of goods by income response

Good	Income rises → demand	Example
Normal good	Rises	Fruits, clothes
Inferior good	Falls	Coarse grains
Luxury	Rises more than proportionately	Cars, foreign travel
Necessity	Rises less than proportionately	Salt, rice

Related goods

- **Substitutes** (tea and coffee): price of tea ↑ → demand for coffee ↑ (positive cross relationship).
- **Complements** (car and petrol): price of petrol ↑ → demand for cars ↓ (negative cross relationship).

1.4 Supply and equilibrium

Supply is the quantity of a commodity that producers are willing and able to offer for sale at a given price during a given period.

Law of supply

Other things remaining the same, the quantity supplied **rises** with a rise in price and falls with a fall in price – a **direct relationship**; the supply curve **slopes upward**.

Determinants of supply

Price of the good, prices of factors (input costs), technology, prices of other goods, number of firms, goals of the firm, government policy (taxes, subsidies), expectations, natural factors.

Market equilibrium

Equilibrium price is the price at which **quantity demanded = quantity supplied**. At a higher price there is excess supply (surplus) pushing price down; at a lower price there is excess demand (shortage) pushing price up.

WORKED EXAMPLE Equilibrium from equations

Qd = 100 − 2P and Qs = 20 + 2P.

At equilibrium Qd = Qs → 100 − 2P = 20 + 2P → 4P = 80 → **P = ₹20**. Q = 100 − 40 = **60 units**.

If the government fixes a maximum price (price ceiling) of ₹15: Qd = 70, Qs = 50 → **shortage of 20 units** (black market / rationing may arise).

If it fixes a minimum support price of ₹25: Qd = 50, Qs = 70 → **surplus of 20 units** (government must buy the surplus).

Effect of shifts on equilibrium

Change	Equilibrium price	Equilibrium quantity
Increase in demand	Rises	Rises
Decrease in demand	Falls	Falls
Increase in supply	Falls	Rises
Decrease in supply	Rises	Falls
Equal increase in demand and supply	Unchanged	Rises

1.5 Elasticity of demand

Elasticity of demand measures the **degree of responsiveness** of quantity demanded to a change in one of its determinants.

Price elasticity of demand (Ep)

√x FORMULA Price elasticity of demand

Ep = Percentage change in quantity demanded ÷ Percentage change in price

Ep = (ΔQ / Q) ÷ (ΔP / P) = (ΔQ / ΔP) × (P / Q)

Arc (mid-point) elasticity = [(Q2 − Q1) / (Q2 + Q1)] ÷ [(P2 − P1) / (P2 + P1)]

Price elasticity is negative (inverse relationship), but we usually ignore the minus sign and use the absolute value.

Degree	Value	Meaning	Example
Perfectly elastic	Ep = ∞	Slight change in price → infinite change in demand; horizontal demand curve	Firm in perfect competition
Relatively elastic	Ep > 1	% change in Q > % change in P	Luxuries
Unitary elastic	Ep = 1	% change in Q = % change in P; rectangular hyperbola	–
Relatively inelastic	Ep < 1	% change in Q < % change in P	Necessities (rice, salt)
Perfectly inelastic	Ep = 0	No change in Q; vertical demand curve	Life-saving drugs (approximately)

Methods of measuring price elasticity

1. **Percentage (proportionate) method** – formula above.
2. **Total expenditure (outlay) method** – Marshall:

Price change	Total expenditure	Elasticity
Price falls, TE rises / price rises, TE falls	Moves opposite to price	Ep > 1
TE unchanged	Constant	Ep = 1
Price falls, TE falls / price rises, TE rises	Moves with price	Ep < 1

3. **Point (geometric) method** – on a straight-line demand curve, Ep at a point = **lower segment ÷ upper segment**. At the mid-point Ep = 1; at the price-axis intercept Ep = ∞; at the quantity-axis intercept Ep = 0.
4. **Arc method** – for large changes, using averages.

Determinants of price elasticity

Nature of the good (necessity/luxury), availability of substitutes, proportion of income spent, number of uses, habits, time period (more elastic in the long run), postponement of consumption, price range.

Income elasticity and cross elasticity

√x FORMULA Income and cross elasticity

Income elasticity Ey = % change in quantity demanded ÷ % change in income

Cross elasticity Exy = % change in quantity of X ÷ % change in price of Y

Elasticity	Value	Interpretation
Ey > 1	Positive, above one	Luxury
0 < Ey < 1	Positive, below one	Necessity
Ey < 0	Negative	Inferior good
Exy > 0	Positive	Substitutes
Exy < 0	Negative	Complements
Exy = 0	Zero	Unrelated goods

WORKED EXAMPLE **Price elasticity numericals**

(a) Price of a pen falls from ₹10 to ₹8; demand rises from 100 to 130.

% ΔQ = 30/100 × 100 = 30%; % ΔP = 2/10 × 100 = 20%. Ep = 30 ÷ 20 = **1.5** (elastic).

TE before = ₹1,000; after = ₹1,040 → TE rises when price falls → elastic (confirms).

(b) Arc elasticity: P from ₹10 to ₹8, Q from 100 to 130. = (30/230) ÷ (2/18) = 0.1304 ÷ 0.1111 = **1.17**.

(c) Income rises from ₹20,000 to ₹25,000; demand for a good falls from 10 kg to 8 kg. Ey = (−20%) ÷ (25%) = **−0.8** → inferior good.

Importance of elasticity

Pricing decisions by firms and monopolists (price discrimination), taxation policy (tax goods with inelastic demand for revenue), international trade (devaluation), wage determination, joint products pricing, and predicting the effect of price changes on revenue.

EXAM TIP **Always state the sign convention. Write "Ep = -1.5; in absolute terms 1.5 > 1, so demand is elastic."**

1.6 Consumer behaviour – utility analysis

Utility is the want-satisfying power of a commodity. It is subjective, relative, and not the same as usefulness (a cigarette has utility to a smoker).

- **Total utility (TU)** – total satisfaction from consuming all units.
- **Marginal utility (MU)** – addition to total utility from one more unit: MUn = TUn − TUn−1.

Units of ice cream	TU (utils)	MU (utils)
1	20	20
2	35	15
3	45	10
4	50	5
5	50	0
6	45	−5

Relationship between TU and MU

- When MU is positive and falling, TU rises at a diminishing rate.
- When MU = 0, TU is **maximum** (point of satiety).
- When MU is negative, TU falls.

Assumptions: utility is measurable in cardinal numbers (utils); marginal utility of money is constant; utilities are independent; consumer is rational; consumption is continuous.

Law of diminishing marginal utility (DMU)

"Other things remaining the same, as a consumer consumes more and more units of a commodity, the marginal utility from each successive unit **goes on diminishing**." (Gossen's first law; stated by Marshall.)

Exceptions/limitations: hobbies and rare collections (stamps), misers (money), drunkards (initially), music and poetry (initial units), indivisible goods, change in tastes or income during consumption.

Law of equi-marginal utility (Gossen's second law)

A consumer with limited income gets **maximum satisfaction** when he allocates his income in such a way that the **marginal utility of the last rupee spent on each good is equal**.

FORMULA **Consumer equilibrium – cardinal approach**

One good: MUx = Px × MUm (MU of money); i.e. MUx / Px = MUm

Two goods: MUx / Px = MUy / Py = MUm

WORKED EXAMPLE Equi-marginal utility

Income ₹6; Px = ₹1, Py = ₹1. Marginal utilities:

Units 1–6 of X: 20, 18, 16, 14, 12, 10. Units 1–6 of Y: 16, 14, 12, 10, 8, 6.

Spend rupee by rupee on the higher MU: X1 (20), X2 (18), X3 (16) and Y1 (16), X4 (14) and Y2 (14).

Equilibrium: **4 units of X and 2 units of Y** – MUx/Px = 14 = MUy/Py; ₹6 spent. Total utility = 20+18+16+14+16+14 = 98 utils (maximum).

Consumer's surplus (Marshall)

Consumer's surplus = what a consumer is **willing to pay** – what he **actually pays**.

FORMULA Consumer's surplus

CS = Total utility (in money) – (Price × Quantity) = Σ MU – P × Q

WORKED EXAMPLE Consumer's surplus

Willingness to pay for 1st to 4th cup of tea: ₹20, ₹16, ₹12, ₹8. Market price ₹8. Consumer buys 4 cups.

Total willingness = ₹56; actual payment = 4 × ₹8 = ₹32. **Consumer's surplus = ₹24.**

Utility cannot be measured in numbers, but the consumer can **rank** preferences. Developed by **J.R. Hicks and R.G.D. Allen** (1934), based on earlier work of Edgeworth and Pareto.

Assumptions

Rationality; ordinal utility; **diminishing marginal rate of substitution**; consistency and transitivity of choices (if A > B and B > C, then A > C); non-satiety (more is preferred to less).

Indifference curve (IC)

An **indifference curve** is the locus of all combinations of two goods that give the consumer the **same level of satisfaction**; the consumer is indifferent among them.

Combination	Apples	Oranges	MRSxy
A	1	15	–
B	2	11	4
C	3	8	3
D	4	6	2
E	5	5	1

An **indifference map** is a set of ICs; a higher IC represents a higher level of satisfaction.

Marginal rate of substitution (MRS)

FORMULA Marginal rate of substitution

MRSxy = $-\Delta Y / \Delta X$ = MUx / MUy (units of Y the consumer is willing to give up for one more unit of X)

MRS **diminishes** along an IC because as the consumer has more of X and less of Y, he values each additional X less and each remaining Y more.

Properties of indifference curves

1. **Slope downward** from left to right (to keep satisfaction constant, more of X needs less of Y).
2. **Convex to the origin** – because of diminishing MRS.
3. **Never intersect** each other (would violate transitivity and non-satiety).
4. **Higher IC = higher satisfaction.**
5. Do not touch either axis (normally – consumer wants both goods).
6. Need not be parallel.

Budget line (price line)

The **budget line** shows all combinations of two goods a consumer can buy with his given income and prices.

FORMULA Budget line

$P_x \cdot X + P_y \cdot Y = M$; slope = $-P_x / P_y$; X-intercept = M/P_x; Y-intercept = M/P_y

- Change in income → **parallel shift** of the budget line.
- Change in price of one good → **rotation** of the budget line.

Consumer equilibrium – ordinal approach

The consumer is in equilibrium at the point where the **budget line is tangent to the highest attainable indifference curve**:

1. **Necessary condition**: MRSxy = Px / Py (slope of IC = slope of budget line).
2. **Sufficient condition**: the IC is **convex** to the origin at the point of tangency (MRS diminishing).

WORKED EXAMPLE Budget line

Income ₹200; Px = ₹10, Py = ₹20. Maximum X = 20 units; maximum Y = 10 units. Slope = −10/20 = −0.5.

If MRSxy at a combination is 2, i.e. MRS > Px/Py (0.5), the consumer values X more than its market price relative to Y – he should buy **more X** and less Y until MRS falls to 0.5.

Price effect = income effect + substitution effect (Hicks)

Good	Substitution effect	Income effect	Price effect
Normal	Negative (more X when Px falls)	Negative (more X)	Negative – law of demand holds
Inferior (non-Giffen)	Negative	Positive but weaker	Negative
Giffen	Negative	Positive and stronger	**Positive** – exception to law of demand

Income consumption curve (ICC) and price consumption curve (PCC)

- **ICC** – locus of equilibrium points as income changes (prices constant); used to derive the **Engel curve**.
- **PCC** – locus of equilibrium points as the price of one good changes; used to derive the **demand curve**.

Cardinal vs ordinal approach

Basis	Cardinal (Marshall)	Ordinal (Hicks–Allen)
Measurement	Utility measurable in utils	Only ranking possible
Marginal utility of money	Constant	Not assumed
Tool	MU curves	Indifference curves and budget line
Equilibrium	MUx/Px = MUy/Py = MUm	MRSxy = Px/Py
Price effect split	Not explained	Income + substitution effects
Giffen paradox	Cannot explain	Explains

COMMON MISTAKE **Do not say ICs are concave. They are convex to the origin because MRS diminishes. Also, two ICs can never cross.**

1.7 Demand forecasting

Method	How it works
Survey of buyers' intentions	Ask consumers what they plan to buy – good for new products and short periods
Collective opinion (sales-force composite)	Salesmen estimate sales in their areas; estimates are added
Expert opinion / **Delphi method**	Experts answer anonymously in rounds until views converge
Market experiments / test marketing	Change price or advertising in a test market and watch sales
Trend projection (time series)	Fit a trend line (least squares) to past sales

Method	How it works
Regression / econometric	Relate demand to income, price and other variables
Barometric method	Use **leading indicators** (e.g., building permits for cement) to predict turning points

1.8 Production – factors and laws

- **Means (factors) of production: land** (all free gifts of nature; reward rent), **labour** (human effort; wages), **capital** (man-made means of further production; interest), **organisation/entrepreneur** (bears risk and combines factors; profit).

Production is the creation of utility by transforming inputs (factors) into output. A **production function** shows the technical relationship between physical inputs and the maximum output.

FORMULA Production function

Q = f(L, K) – output depends on labour and capital (with given technology)

Cobb–Douglas form: Q = A · L^α · K^β; if α + β = 1 → constant returns to scale

Short run and long run

Basis	Short run	Long run
Factors	Some fixed (plant, machinery), some variable (labour, raw materials)	All factors are variable
Law	Law of variable proportions (returns to a factor)	Returns to scale
Costs	Fixed and variable costs	Only variable costs

"When more and more units of a variable factor are combined with a fixed quantity of other factors, the **total product first increases at an increasing rate, then at a diminishing rate, and finally declines**." Equivalently, the marginal product of the variable factor eventually diminishes.

Labour	TP	MP	AP	Stage
1	10	10	10	I
2	24	14	12	I
3	36	12	12	I/II boundary (AP max)
4	44	8	11	II
5	48	4	9.6	II
6	48	0	8	II/III boundary (TP max)
7	45	−3	6.4	III

Three stages

Stage	TP	MP	AP	Name
I	Rises at increasing then diminishing rate	Rises, reaches max, then falls; MP > AP	Rises to max (MP = AP at end)	**Increasing returns** to the factor
II	Rises at diminishing rate to max	Falls, becomes zero	Falls	**Diminishing returns – rational stage of production**
III	Falls	Negative	Falls	**Negative returns**

Causes

- **Stage I**: better utilisation of fixed factor; specialisation and division of labour; indivisibility of fixed factor.
- **Stage II**: fixed factor becomes scarce relative to variable factor; imperfect substitutability.
- **Stage III**: overcrowding; fixed factor overused; workers obstruct each other.

REMEMBER **A rational producer always operates in Stage II, where MP is positive but falling and AP is falling. When MP = 0, TP is maximum; when MP = AP, AP is maximum.**

Returns to scale refer to the change in output when **all inputs are changed in the same proportion**.

Type	Output change compared with input change	Example
Increasing returns to scale (IRS)	Output increases **more** than proportionately	Inputs doubled → output triples
Constant returns to scale (CRS)	Output increases in the **same** proportion	Inputs doubled → output doubles
Decreasing returns to scale (DRS)	Output increases **less** than proportionately	Inputs doubled → output rises by 50%

Causes – economies and diseconomies of scale

Internal economies (within the firm)	Internal diseconomies
Technical (large machines, linked processes)	Management difficulties – coordination and control
Managerial (specialist managers)	Labour problems; communication gaps
Marketing (bulk buying and selling)	Rising input prices due to large demand
Financial (cheaper credit)	Delays in decision-making
Risk-bearing (diversification)	–
External economies (to all firms in an industry)	**External diseconomies**
Infrastructure, skilled labour pool, ancillary industries, information	Congestion, pollution, higher land prices

1.9 Cost concepts

Cost	Meaning
Explicit cost	Actual money payments to outside factors (wages, rent, raw material)
Implicit cost	Imputed cost of owner's own factors (own capital, own building, own salary)
Accounting cost	Explicit costs only
Economic cost	Explicit + implicit costs (including **normal profit**)
Opportunity cost	Value of next best alternative forgone
Private cost / social cost	Cost to the firm / cost to society including externalities
Sunk cost	Already incurred and cannot be recovered
Fixed cost (TFC)	Does not change with output – rent, salary of permanent staff, depreciation, interest
Variable cost (TVC)	Changes with output – raw material, power, wages of casual labour

√× FORMULA Short-run cost formulas

$TC = TFC + TVC$

$AFC = TFC / Q$; $AVC = TVC / Q$; $ATC\ (AC) = TC / Q = AFC + AVC$

$MC = \Delta TC / \Delta Q = \Delta TVC / \Delta Q = TCn - TCn{-}1$

Q	TFC	TVC	TC	AFC	AVC	AC	MC
0	60	0	60	–	–	–	–
1	60	40	100	60	40	100	40
2	60	70	130	30	35	65	30
3	60	90	150	20	30	50	20
4	60	120	180	15	30	45	30
5	60	170	230	12	34	46	50
6	60	240	300	10	40	50	70

Shapes of short-run cost curves

- **TFC** – horizontal straight line.
- **TVC** – starts from origin; inverse-S shaped (law of variable proportions).
- **TC** – same shape as TVC, starting from the TFC level.
- **AFC** – continuously falls; a **rectangular hyperbola** (never touches axes).
- **AVC, AC and MC** – **U-shaped** due to the law of variable proportions.

- **MC cuts AVC and AC at their minimum points** from below.
- The gap between AC and AVC (= AFC) narrows as output rises.

Relationship between AC and MC

- When MC < AC, AC falls.
- When MC = AC, AC is at its minimum.
- When MC > AC, AC rises.
- MC reaches its minimum before AC.

Long-run average cost (LAC) curve

- **LAC is the envelope** of short-run average cost (SAC) curves – it is called a **planning curve**.
- It is **U-shaped** (flatter than SAC) due to economies and diseconomies of scale.
- The point where LAC is minimum gives the **optimum scale of plant**.
- Empirically, many LAC curves are **L-shaped**.

Module 2: Forms of Market

2.1 Market and its classification

A **market** is a system where buyers and sellers interact to exchange goods at a price; it need not be a physical place.

Feature	Perfect competition	Monopoly	Monopolistic competition	Oligopoly
Number of sellers	Very large	One	Large	Few
Product	Homogeneous	Unique, no close substitute	Differentiated	Homogeneous or differentiated
Entry and exit	Free	Blocked	Free	Difficult
Price control	None – price taker	Considerable – price maker	Some	Considerable but interdependent
Demand curve (AR)	Perfectly elastic (horizontal)	Downward sloping, inelastic	Downward sloping, highly elastic	Kinked / indeterminate
Selling cost	Nil	Small (informative)	High	Very high
Example	Agricultural produce (approximately), stock market	Indian Railways, electricity distribution in an area	Restaurants, soaps, toothpaste	Telecom, airlines, cement, automobiles

2.2 Perfect competition

Features

Large number of buyers and sellers; homogeneous product; free entry and exit; perfect knowledge; perfect mobility of factors; no transport cost; no government interference. Firm is a **price taker**; industry determines price.

Short-run equilibrium of a firm

The firm produces where **MC = MR = P** and MC is rising. It may earn:

Situation	Condition	Result
Supernormal profit	P > AC	Abnormal profit
Normal profit	P = AC	Break-even
Loss but continue	AVC ≤ P < AC	Covers variable cost and part of fixed cost
Shut-down point	P = minimum AVC	Indifferent between producing and shutting
Shut down	P < AVC	Stops production

The portion of the **MC curve above minimum AVC** is the short-run **supply curve** of the firm.

Long-run equilibrium

Supernormal profits attract new firms, losses drive firms out, until every firm earns only **normal profit**:

FORMULA Long-run equilibrium under perfect competition

P = AR = MR = MC = minimum LAC (= SAC)

Firms produce at the **minimum point of LAC** – optimum size; no excess capacity.

WORKED EXAMPLE Perfect competition numerical

Market price ₹20. Firm's TC = 50 + 2Q + 0.5Q². MC = 2 + Q.

Equilibrium: P = MC → 20 = 2 + Q → **Q = 18**. TR = 360; TC = 50 + 36 + 162 = 248. **Profit = ₹112** (supernormal – new firms will enter in the long run).

2.3 Monopoly and price discrimination

Monopoly (Greek *monos* = single, *polein* = seller) is a market with a **single seller** of a product with **no close substitutes**, and **barriers to entry**.

Sources of monopoly power

Legal (patents, copyrights, licences), control over raw materials, economies of scale (natural monopoly), government ownership, cartels, huge capital requirement.

Equilibrium

The monopolist produces where **MC = MR**, and charges the price from the demand (AR) curve. Since AR > MR, **P > MC**.

- **Short run**: profit, normal profit or loss.
- **Long run**: usually **supernormal profit** continues because entry is blocked.
- A monopolist always operates on the **elastic portion** of the demand curve (where MR > 0, i.e. e > 1).
- No unique supply curve under monopoly.

WORKED EXAMPLE Monopoly numerical

Demand: P = 100 − 2Q → TR = 100Q − 2Q² → MR = 100 − 4Q. MC = 20 (constant, no fixed cost).

MR = MC → 100 − 4Q = 20 → **Q = 20**; P = 100 − 40 = **₹60**.

Profit = (60 − 20) × 20 = **₹800**.

Under perfect competition, P = MC = 20 → Q = 40. Monopoly gives **lower output and higher price** – a deadweight loss = ½ × (60 − 20) × (40 − 20) = ₹400.

Price discrimination

Price discrimination is charging different prices to different buyers for the same product, for reasons not related to cost differences.

Degree	Pigou's classification	Example
First degree (perfect)	Each buyer charged his maximum willingness – consumer surplus fully captured	Doctor charging rich/poor patients differently
Second degree	Different prices for different blocks/quantities	Electricity slab tariffs
Third degree	Market divided into groups with different elasticities	Railway fares by class, student discounts, export vs domestic price

Conditions: monopoly power, markets can be separated (no resale), different elasticities of demand. Under third-degree discrimination, the monopolist equates **MR1 = MR2 = MC** and charges a **higher price in the market with less elastic demand**.

Degree of price discrimination	Meaning	Example
First degree (perfect)	Each unit sold at the maximum price the buyer will pay – whole consumer surplus taken	Doctor charging each patient differently
Second degree	Price falls with the **quantity block** bought (block pricing)	Electricity slabs, bulk discounts
Third degree	Different prices in **separate markets/groups**	Student and senior-citizen fares; export vs home price

2.4 Monopolistic competition

Features

Large number of firms; **product differentiation** (brand, quality, packaging, location, after-sales service); freedom of entry and exit; **selling costs** (advertisement); some control over price; group instead of industry.

Equilibrium

- **Short run**: MC = MR; may earn supernormal profit, normal profit or loss.

- **Long run**: free entry eliminates supernormal profits; firm earns **normal profit**, where the **AR curve is tangent to the LAC curve** (AR = AC) to the **left of the minimum point** of LAC.
- Result: **excess capacity** – output is less than the optimum (minimum LAC) level; price higher than under perfect competition.

Selling costs

Costs incurred to change the demand curve of a product – advertisement, salesmen, displays, free samples. Production costs create the product; selling costs create demand for it (Chamberlin).

2.5 Duopoly and oligopoly

- **Duopoly** – only two sellers. **Cournot model** (1838): each firm chooses **output** assuming the rival's output is fixed. **Bertrand model** (1883): each firm sets **price** assuming the rival's price is fixed – price falls to marginal cost. **Edgeworth model**: price competition with capacity limits – prices oscillate. **Stackelberg**: leader–follower in output.

Oligopoly – a market with **a few sellers** whose decisions are **interdependent**. **Duopoly** is a special case with two sellers.

Features

Few sellers; interdependence in decision-making; advertisement and selling costs crucial; group behaviour; barriers to entry; indeterminate demand curve; price rigidity; possibility of collusion.

Kinked demand curve model (Paul Sweezy, 1939)

Explains **price rigidity**. If a firm raises its price, rivals do **not** follow – demand above the current price is **elastic**. If it lowers price, rivals **follow** – demand below is **inelastic**. The demand curve has a **kink** at the prevailing price, and the MR curve has a **discontinuous (vertical) gap** below the kink. MC can move within this gap without changing price or output – hence prices are sticky.

Other oligopoly models

Model	Idea
Cournot duopoly (1838)	Each firm decides output assuming rival's output is fixed
Bertrand (1883)	Firms compete on price
Cartel / collusive oligopoly	Firms jointly fix price and output (OPEC) – illegal under Competition Act, 2002
Price leadership	Dominant or low-cost firm sets price; others follow
Game theory (prisoner's dilemma)	Strategic interdependence; Nash equilibrium

REMEMBER **In India, anti-competitive agreements and abuse of dominant position are prohibited by the Competition Act, 2002, enforced by the Competition Commission of India (CCI).**

REMEMBER **Quick comparison**

Perfect competition: price taker, AR = MR, normal profit in the long run. Monopoly: price maker, MR < AR, no close substitutes. Monopolistic competition: product differentiation and **selling costs**. Oligopoly: few sellers, **interdependence**, price rigidity (kinked demand).

Module 3: Money and Banking

3.1 Money – meaning, kinds and functions

Money is anything that is **generally accepted** as a medium of exchange and measure of value. "Money is what money does" (Walker).

Function type	Functions
Primary	**Medium of exchange**; **measure (unit) of value**
Secondary	**Store of value**; **standard of deferred payments**; **transfer of value**
Contingent	Basis of credit; distribution of national income; equalising marginal utilities; liquidity

Barter system and its difficulties

Lack of **double coincidence of wants**, lack of common measure of value, indivisibility of goods, difficulty of storing value, and difficulty of deferred payments.

Kinds of money

Commodity money, metallic money (full-bodied, token), paper money (convertible, inconvertible – **fiat money**), bank (credit) money – demand deposits, **digital money** – UPI balances in bank accounts, **Central Bank Digital Currency (e₹)** issued by RBI as a pilot from 2022.

- **Functions:** primary – medium of exchange, measure of value; secondary – store of value, standard of deferred payment, transfer of value; **contingent** – basis of credit, distribution of national income, equalising marginal utilities, liquidity; others – bearer of option.
- **Gresham's law:** "**Bad money drives good money out of circulation**" (people hoard the better coins).

3.2 Money supply and value of money

Measure	Components
M0 (Reserve money / high-powered money)	Currency in circulation + bankers' deposits with RBI + other deposits with RBI
M1 (Narrow money)	Currency with the public + demand deposits with banks + other deposits with RBI
M2	M1 + savings deposits with post office savings banks (earlier) / M1 + short-term time deposits (new aggregates)
M3 (Broad money)	M1 + **time deposits** with banks
M4	M3 + total post office deposits (excluding NSCs)

Money multiplier = M3 / M0. Money supply depends on high-powered money and the money multiplier (which depends on CRR, currency-deposit ratio, excess reserves).

√x FORMULA Fisher's equation of exchange

MV = PT, or P = MV/T (with credit money: MV + M'V' = PT)

M = money supply, V = velocity, P = price level, T = volume of transactions

Cambridge cash-balance version: M = kPY (k = proportion of income held as money)

With V and T constant, the price level changes **directly and proportionately** with money supply. Keynes criticised it for assuming full employment and constant velocity.

Inflation is a **persistent and appreciable rise in the general price level** over a period of time, i.e. a fall in the purchasing power of money.

Types of inflation

Basis	Type
Speed	**Creeping** (up to about 3%), **walking/trotting** (3–10%), **running** (10–20%), **galloping / hyper-inflation** (very high – e.g. Germany 1923, Zimbabwe 2008)

Basis	Type
Cause	**Demand-pull** (excess demand – "too much money chasing too few goods"), **cost-push** (rise in wages, raw material prices, profits – wage-push, profit-push, supply shocks)
Others	Open vs suppressed inflation; **stagflation** (inflation with stagnation/unemployment); **deflation** (fall in prices); **disinflation** (fall in the rate of inflation); **reflation** (deliberate inflation to recover from depression)

Measurement in India

Index	By	Use
CPI (Combined)	NSO, MoSPI	**Headline inflation for RBI's inflation target**
CPI-IW (Industrial Workers)	Labour Bureau	DA of government employees
CPI-AL / RL	Labour Bureau	Agricultural and rural labourers
WPI (Wholesale Price Index, base 2011-12)	Office of Economic Adviser, DPIIT	Wholesale prices, producer inflation
GDP deflator	NSO	Broadest measure

> NOTE **CPI and WPI base years are being revised by MoSPI/DPIIT – check the latest base year before writing it in the exam.**

Effects of inflation

- **Debtors gain, creditors lose**; fixed-income earners (pensioners, salaried) lose; businessmen and producers generally gain (profits rise).
- Saving falls; speculative activities rise; balance of payments worsens (exports less competitive).
- Inequality increases; social and political unrest.
- Mild inflation may encourage investment and growth.

Control of inflation

- **Monetary measures** – raise repo rate, CRR, SLR; sell government securities (OMO); selective credit controls.
- **Fiscal measures** – reduce government expenditure, raise taxes, public borrowing, surplus budget.
- **Other measures** – increase production, import essential goods, price control and rationing, wage policy, supply chain improvement.

3.3 Banking – meaning, types and functions

A **bank** is an institution that mainly **accepts deposits from the public and lends money**. **Section 5(b) of the Banking Regulation Act, 1949** defines **banking** as "accepting, for the purpose of lending or investment, of deposits of money from the public, repayable on demand or otherwise, and withdrawable by cheque, draft, order or otherwise."

Key elements: deposits from the **public**; purpose is **lending or investment**; repayable on demand or otherwise; withdrawable by cheque, draft or order.

Scheduled banks are banks included in the **Second Schedule of the RBI Act, 1934** (paid-up capital and reserves of at least ₹5 lakh and affairs not detrimental to depositors). They can borrow from the RBI and must maintain CRR with it.

Type	Features
Commercial banks	Public sector, private sector, foreign banks; accept deposits, lend for trade, industry, retail
Regional Rural Banks	1975; credit to small farmers, labourers, artisans in rural areas; owned by Centre, State and sponsor bank (amalgamated into "one state one RRB" from 2025 – check latest)
Cooperative banks	Owned by members; urban cooperative banks; state and district central cooperative banks; regulated by **RBI and Registrar of Cooperative Societies (dual control)**, with RBI powers widened in 2020
Small Finance Banks	Serve **small businesses, farmers, unorganised sector**; 75% priority sector lending
Payments Banks	Accept deposits up to ₹2 lakh per customer and offer remittances, but **cannot lend**

Type	Features
Development banks	NABARD (**apex for agriculture and rural development**), SIDBI (MSMEs), EXIM Bank, NHB, NaBFID
Universal banking	A bank group offering a wide range of services – commercial banking, investment banking, insurance, mutual funds (through subsidiaries)
Central bank	RBI – banker's bank, lender of last resort

Bank vs NBFC

An NBFC **cannot accept demand deposits or issue cheques drawn on itself**, is not part of the payment and settlement system, and its depositors do not get DICGC cover. NBFCs accepting public deposits need minimum **net owned fund of ₹10 crore** (phased under scale-based regulation).

Primary functions

1. Accepting deposits

Deposit	Features
Savings account	For individuals to save and earn interest; limited withdrawals in some banks; BSBDA (Basic Savings Bank Deposit Account) is a **zero-balance** account with basic facilities
Current account	For businesses; **repayable on demand**, unlimited withdrawals; usually no interest; overdraft facility
Fixed deposit (term deposit)	Repayable after a fixed period; higher interest; premature withdrawal with penalty
Recurring deposit	Fixed amount every month for a fixed period

2. Granting loans and advances – cash credit, overdraft, term loans, bill discounting, retail loans (home, vehicle, education, personal).

3. Credit creation – banks create deposits by lending.

WORKED EXAMPLE **Credit creation**

Reserve requirement 10%; fresh deposit ₹1,000. Maximum total deposits = 1,000 ÷ 0.10 = **₹10,000**. Additional loans created by the banking system = 10,000 − 1,000 = **₹9,000**. Credit creation is limited by cash reserve requirements, cash leakage and demand for loans.

Secondary functions

- **Agency functions:** collecting cheques, bills, dividends; paying bills, insurance premiums; acting as trustee, executor, attorney; buying and selling securities for customers.
- **Utility functions:** safe deposit lockers, letters of credit, bank guarantees, demand drafts, foreign exchange, credit and debit cards, internet and mobile banking, distribution of insurance (**bancassurance**) and mutual funds.

3.4 Principles of banking

Principle	Meaning
Liquidity	Keep enough cash and near-cash assets to meet withdrawals on demand
Profitability	Earn enough income to pay interest, costs and dividends
Safety / security	Lend against good security to sound borrowers
Solvency	Assets must exceed liabilities; maintain adequate capital
Diversification	Spread loans and investments over many sectors
Service and secrecy	Prompt service; keep customers' affairs confidential

NOTE **Liquidity and profitability conflict – cash earns nothing, loans earn more but are less liquid. Good banking balances the two.**

- **Development financial institutions: IFCI (1948)** – first DFI; IDBI (1964); NABARD (1982); SIDBI (1990); EXIM Bank (1982).

- **SWIFT** – Society for Worldwide Interbank Financial Telecommunication: secure messaging network for international bank transfers.

3.5 Central bank – the RBI

The RBI was established on **1 April 1935** under the **Reserve Bank of India Act, 1934**, on the recommendation of the Hilton Young Commission; nationalised on **1 January 1949**. Headquarters: **Mumbai**.

Functions of RBI

1. **Bank of issue** – sole authority to issue currency notes (except ₹1 notes and coins, issued by the Government of India); **minimum reserve system** (₹200 crore of gold and foreign exchange, of which ₹115 crore in gold).
2. **Banker to the government** – Central and State governments; manages public debt.
3. **Bankers' bank** – holds cash reserves of banks; lender of last resort.
4. **Controller of credit** – monetary policy.
5. **Custodian of foreign exchange reserves** – manages exchange rate under **FEMA, 1999**.
6. **Regulator and supervisor** of banks and NBFCs (Banking Regulation Act, 1949).
7. **Payment and settlement systems** – RTGS, NEFT; oversees NPCI systems such as UPI (Payment and Settlement Systems Act, 2007).
8. Developmental and promotional functions – financial inclusion, priority sector lending, agricultural credit (NABARD), MSME finance.

3.6 Credit control and monetary policy

Monetary policy is the policy of the central bank regarding the **cost (interest rates), availability and supply of money and credit** to achieve macroeconomic objectives.

Objectives

Price stability (primary – inflation targeting), keeping in mind the objective of **growth**; exchange rate stability; financial stability; full employment.

Monetary Policy Framework (2016)

- RBI Act amended in **2016** to provide a statutory basis for **flexible inflation targeting**.
- **Inflation target**: **4% CPI (Combined) inflation, with a tolerance band of ±2%** (2%–6%), set by the Government in consultation with RBI for five-year periods (retained for 2021–26; check for any revision).
- **Monetary Policy Committee (MPC)**: **6 members** – 3 from RBI (Governor as chairperson, Deputy Governor in charge of monetary policy, one RBI officer) and 3 external members appointed by the Government; meets at least **4 times a year** (in practice 6); decisions by majority; Governor has a **casting vote**.
- If inflation stays outside the band for **three consecutive quarters**, RBI must report reasons to the Government.

Instruments of monetary policy

Quantitative (general) instruments	Meaning
Repo rate	Rate at which RBI lends short-term funds to banks against government securities – the **key policy rate**
Standing Deposit Facility (SDF)	Rate at which RBI absorbs liquidity from banks without collateral – **floor** of the LAF corridor (repo – 25 bps), introduced April 2022
Reverse repo rate	Rate at which RBI borrows from banks against securities (now less important; SDF is the floor)
Marginal Standing Facility (MSF)	Overnight borrowing by banks from RBI beyond LAF – **ceiling** of the corridor (repo + 25 bps); **Bank Rate** is aligned with MSF
Cash Reserve Ratio (CRR)	% of net demand and time liabilities (NDTL) banks must keep as cash with RBI; no interest paid
Statutory Liquidity Ratio (SLR)	% of NDTL banks must maintain in liquid assets – cash, gold, approved government securities
Open Market Operations (OMO)	RBI buys (injects liquidity) or sells (absorbs liquidity) government securities

Quantitative (general) instruments	Meaning
Liquidity Adjustment Facility (LAF)	Repo and reverse repo/SDF operations for day-to-day liquidity, including variable rate repo auctions
Qualitative (selective) instruments	Meaning
Margin requirements	Difference between value of security and loan amount; raising margin reduces credit for speculation
Credit rationing	Ceilings on credit to particular sectors
Moral suasion	Persuasion and advice to banks
Direct action	Penal measures against non-complying banks
Priority sector lending	Directed credit to agriculture, MSMEs, education, housing etc.

NOTE **The current values of repo, SDF, MSF, CRR and SLR change after MPC meetings. Check the latest RBI monetary policy statement before your exam rather than memorising old figures.**

Expansionary vs contractionary policy

Policy	Purpose	Tools
Expansionary (cheap money)	Fight recession, boost growth	Cut repo, CRR, SLR; buy securities (OMO)
Contractionary (dear money)	Control inflation	Raise repo, CRR; sell securities

WORKED EXAMPLE **CRR and liquidity**

NDTL of banks = ₹200 lakh crore. If RBI cuts CRR by 0.5 percentage point, primary liquidity released = 0.5% × 200 = **₹1 lakh crore**. Through the credit multiplier, total credit can rise by more than this amount.

Credit creation by commercial banks

FORMULA **Credit multiplier**

Credit multiplier = 1 / Required reserve ratio; Total deposits created = Initial deposit × 1/r

WORKED EXAMPLE **Credit creation**

Initial deposit ₹10,000; reserve ratio 10%. Maximum deposits = 10,000 × 1/0.10 = ₹1,00,000. Credit created = ₹90,000.

Quantitative (general) methods	Qualitative (selective) methods
Bank rate, repo / reverse repo, open market operations, CRR, SLR	Margin requirements, credit rationing, regulation of consumer credit, **moral suasion**, direct action, publicity

3.7 Money market

The **money market** deals in **short-term funds (up to one year)**; the capital market deals in long-term funds.

Instrument	Key feature
Call / notice / term money	Inter-bank borrowing: overnight (call), 2–14 days (notice), 15 days–1 year (term) VERIFY
Treasury bills	Issued by the Government of India at a discount: **91, 182, 364 days**
Commercial paper (CP)	Unsecured promissory note by companies, 7 days–1 year
Certificate of deposit (CD)	Negotiable time deposit receipt issued by banks (7 days–1 year) VERIFY
Repo / TREPS	Borrowing against securities with an agreement to repurchase
Commercial bills	Trade bills discounted by banks

Module 4: Economic and Business Environment

4.1 Business environment – meaning and types

Business environment = the sum of all **external and internal factors** that affect a firm's working.

Type	Includes
Internal environment	Objectives, management, employees, culture, resources (controllable)
External – micro (task/operating)	**Suppliers**, customers, competitors, marketing intermediaries, financiers, public – directly linked with the firm
External – macro (general)	Political, economic, social, technological, environmental (natural), legal, demographic, global – affect all firms

WORKED EXAMPLE **A firm outsourcing its components depends on the supplier part of its micro environment; a new data-protection law is a legal macro factor; changing food habits are socio-cultural.**

4.2 PESTEL analysis

Factor	Examples
Political	Government stability, tax policy, trade policy, subsidies, FDI policy
Economic	GDP growth, inflation, interest rates, exchange rates, unemployment
Social (socio-cultural)	Population, age structure, education, lifestyle, religion, attitudes
Technological	Automation, digitalisation, AI, R&D, rate of obsolescence
Environmental	Climate change, pollution norms, waste disposal, sustainability, weather
Legal	Company law, labour law, consumer protection, competition law, health and safety

EXAM TIP **PESTEL is a macro-environment scanning tool; it helps a firm spot opportunities and threats (the O and T of SWOT).**

4.3 Emerging dimensions – VUCAFU

Letter	Dimension	Meaning for business
V	**Volatility**	Rapid, large changes (prices, demand, rates)
U	**Uncertainty**	Outcomes cannot be predicted from the past
C	**Complexity**	Many interconnected factors
A	**Ambiguity**	Information is unclear; cause–effect is hard to read
F	**Fear of the unknown**	Anxiety about events never faced before
U	**Unprecedentedness**	Situations without precedent (e.g., a pandemic)

- **Response:** vision against volatility, understanding against uncertainty, clarity against complexity, agility against ambiguity; scenario planning, flexible supply chains and continuous learning.

4.4 Porter's five forces (industry analysis)

Threat of new entrants · bargaining power of suppliers · bargaining power of buyers · threat of substitutes · rivalry among existing competitors.

Module 5: Fundamentals of Management

5.1 Meaning and definitions

Management is the process of **getting things done through and with people** in a way that organisational goals are achieved **effectively** (doing the right things, achieving targets) and **efficiently** (doing things right, with minimum cost and waste).

Author	Definition (in essence)
Harold Koontz and Heinz Weihrich	Process of designing and maintaining an environment in which individuals, working together in groups, efficiently accomplish selected aims
F.W. Taylor	Knowing exactly what you want men to do and seeing that they do it in the best and cheapest way
Henri Fayol	To manage is to forecast and plan, to organise, to command, to coordinate and to control
Mary Parker Follett	The art of getting things done through people
Peter Drucker	A multipurpose organ that manages a business, manages managers and manages workers and work
Author	Definition (key words)
F.W. Taylor	"Knowing exactly what you want men to do and then seeing that they do it in the best and cheapest way"
Henri Fayol	"To manage is to forecast and plan, to organise, to command, to co-ordinate and to control"
Mary Parker Follett	"The art of getting things done through people"
Koontz & Weihrich	"The process of designing and maintaining an environment in which individuals, working together in groups, efficiently accomplish selected aims"
George R. Terry	"A distinct process consisting of planning, organising, actuating and controlling ... to determine and accomplish stated objectives by the use of human beings and other resources"
Peter Drucker	"A multipurpose organ that manages a business, manages managers and manages workers and work"

5.2 Nature, levels and functions

1. **Goal-oriented** – exists to achieve objectives.
2. **Universal (pervasive)** – needed in all organisations: business, government, hospitals, clubs, families.
3. **Continuous process** – planning, organising, staffing, directing and controlling go on all the time.
4. **Multidimensional** – management of work, people and operations.
5. **Group activity** – coordinates the efforts of many people.
6. **Dynamic** – adapts to a changing environment.
7. **Intangible** – it is felt through results (order, satisfaction, output).
8. **Integrative force** – blends human, physical and financial resources.

Management as art, science and profession

Aspect	Arguments	Conclusion
Art	Requires personal skill, creativity, practice; based on practical knowledge	Yes – management is an art
Science	Has systematised body of knowledge, principles based on observation and experiment; but principles are flexible and human behaviour is unpredictable	An **inexact (social/behavioural) science**
Profession	Has a body of knowledge and formal education (MBA); but no restricted entry, no compulsory licence or binding code of conduct like doctors (MCI) or CAs (ICAI)	Does **not fully meet** the tests of a profession, though moving in that direction

REMEMBER Management is **both an art and a science** – "science teaches to know, art teaches to do". It is an emerging profession.

Levels of management

Level	Who	Main role
Top	Board of directors, CEO, MD, chairman	Set objectives, policies and strategy; responsible for overall performance; more conceptual skills
Middle	Departmental/divisional heads, plant managers	Interpret policies, link top and lower levels, organise department activities
Lower (supervisory / operational)	Supervisors, foremen, section officers	Direct workers, maintain quality and discipline, more technical skills

Managerial skills (Robert Katz): **technical** (most at lower level), **human** (all levels), **conceptual** (most at top level).

Managerial roles (Henry Mintzberg)

- **Interpersonal** – figurehead, leader, liaison.
- **Informational** – monitor, disseminator, spokesperson.
- **Decisional** – entrepreneur, disturbance handler, resource allocator, negotiator.

Function	Meaning
Planning	Deciding in advance what to do, how, when and by whom – the primary function
Organising	Identifying and grouping activities, assigning duties, delegating authority, creating structure
Staffing	Filling and keeping filled the positions with right people – recruitment, selection, training, appraisal
Directing	Guiding, motivating, leading and communicating with people
Controlling	Measuring performance against standards and correcting deviations

Coordination is called the **essence of management**, running through all functions. Luther Gulick summarised the functions as **POSDCORB** – Planning, Organising, Staffing, Directing, Coordinating, Reporting, Budgeting.

Administration vs management

Basis	Administration	Management
Nature	Thinking function – determines policies	Doing function – executes policies
Level	Top level	Middle and lower levels
Decisions	Determinative	Executive, within the framework
Usage	Government, military, educational institutions	Business organisations

Modern view: the terms are used interchangeably; administration is part of management.

5.3 Evolution – Taylor and Fayol

Frederick Winslow Taylor (1856–1915), the **father of scientific management**, worked at Midvale Steel and Bethlehem Steel; author of *The Principles of Scientific Management* (1911). He replaced the "rule of thumb" with scientific methods.

Principles of scientific management

1. **Science, not rule of thumb** – each job studied scientifically.
2. **Harmony, not discord** – cooperation between management and workers (**mental revolution**).
3. **Cooperation, not individualism**.
4. **Development of each person to his/her greatest efficiency and prosperity** – scientific selection and training.

Techniques of scientific management

Technique	Meaning
Functional foremanship	8 foremen instead of one – 4 in planning (route clerk, instruction card clerk, time and cost clerk, disciplinarian) and 4 in production (speed boss, gang boss, repair boss, inspector)
Standardisation and simplification of work	Standard tools, methods, materials; eliminate unnecessary varieties
Method study	Finding the one best way of doing a job

Technique	Meaning
Motion study	Eliminating unnecessary movements (Gilbreths)
Time study	Standard time for each task – fair day's work
Fatigue study	Rest intervals
Differential piece-rate system	Higher rate for workers meeting the standard, lower rate for those below
Mental revolution	Change of attitude of both sides – focus on increasing the surplus rather than dividing it

Criticism: treated workers like machines, over-specialisation, exploitation and speed-up, opposed by trade unions, violates unity of command (functional foremanship).

Henri Fayol (1841–1925), a French mining engineer, the **father of modern (general) management**; book *General and Industrial Administration* (1916). He identified six groups of activities in an industrial undertaking – technical, commercial, financial, security, accounting and **managerial** – and five functions of management (planning, organising, commanding, coordinating, controlling).

Fayol's 14 principles of management

No.	Principle	Meaning
1	**Division of work**	Specialisation increases efficiency
2	**Authority and responsibility**	Authority must be matched with equal responsibility
3	**Discipline**	Obedience, respect for agreements
4	**Unity of command**	Each employee receives orders from **one superior** only
5	**Unity of direction**	One head and one plan for a group of activities with the same objective
6	Subordination of individual interest to general interest	Organisation's interest comes first
7	Remuneration	Fair and satisfactory pay
8	Centralisation and decentralisation	Balance depending on the situation
9	**Scalar chain**	Chain of authority from top to bottom; **gang plank** allows direct communication between employees at the same level in an emergency, with superiors' permission
10	Order	A place for everything and everyone in their place (material and social order)
11	Equity	Kindness and justice
12	Stability of tenure of personnel	Avoid high turnover
13	Initiative	Encourage employees to suggest and implement plans
14	**Esprit de corps**	Team spirit – "union is strength"

Taylor vs Fayol

Basis	Taylor	Fayol
Perspective	Shop floor (lower level) – worker productivity	Top management – general administration
Background	Mechanical engineer	Mining engineer
Focus	Efficiency of workers	Improving overall administration
Unity of command	Violated (functional foremanship)	Strongly supported
Applicability	Specialised situations	Universal
Known as	Father of scientific management	Father of general management
Expression	Scientific observation and measurement	Personal experience

5.4 Stewardship and agency theory

Point	Agency theory	Stewardship theory
Founders	**Jensen and Meckling (1976)**	Donaldson and Davis (1991)

Point	Agency theory	Stewardship theory
View of managers	**Agents** of the owners (principals) who may pursue self-interest	**Stewards** who are pro-organisational and trustworthy
Problem	Conflict of interest between principal and agent	Little conflict – goals are aligned
Remedy	Monitoring, incentives (stock options), independent boards	Empowerment, trust, combining CEO and chair roles

- **Agency costs** = **monitoring costs** (by the principal, e.g., audit) + **bonding costs** (by the agent, e.g., reports, guarantees) + **residual loss** (welfare lost despite these).

5.5 Planning and decision making

Planning is **deciding in advance what to do, how to do it, when to do it and who is to do it**. It bridges the gap between where we are and where we want to go (Koontz). It is the **primary function** of management.

Features

Goal-oriented; primary function; pervasive; continuous; **futuristic**; involves **decision making** (choosing among alternatives); intellectual (mental) exercise; aims at efficiency.

Importance

Provides direction; reduces risk of uncertainty; reduces overlapping and wasteful activities; promotes innovative ideas; facilitates decision making; **establishes standards for controlling** (planning and controlling are inseparable twins).

Limitations

Creates rigidity; may not work in a dynamic environment; reduces creativity; involves huge costs; time-consuming; does not guarantee success.

- **Planning premises** are the assumptions about the future environment (forecasts of demand, prices, policies) on which plans are built.

Decision making is the process of **selecting the best course of action from among alternatives** to solve a problem or achieve an objective. "Decision making is the heart of management" (Herbert Simon called management "decision making").

Types of decisions

Type	Meaning
Programmed	Routine, repetitive, handled by standard rules (reorder stock)
Non-programmed	Novel, unstructured, important (entering a new market)
Strategic vs tactical/operational	Long-term major vs day-to-day
Individual vs group	By one person vs a committee
Decisions under certainty, risk, uncertainty	Depending on information available

Decision-making process

Identify the problem → diagnose and analyse → develop alternatives → evaluate alternatives → select the best → implement → follow-up and feedback.

Models and aids

- **Rational (economic man) model** – maximising; **bounded rationality** (Herbert Simon) – managers **satisfice** (choose a satisfactory solution) because of limited information and time.
- Techniques: decision trees, cost-benefit analysis, linear programming, brainstorming, Delphi technique, nominal group technique, SWOT analysis.

5.6 Organising – structure, delegation and accountability

Organising is the process of **identifying and grouping the activities** to be performed, **assigning** them to individuals/departments, **delegating authority** and establishing **authority–responsibility relationships** for

achieving objectives.

Process of organising

1. Identification and division of work.
2. **Departmentalisation** – grouping similar activities.
3. Assignment of duties.
4. Establishing reporting relationships (hierarchy).

Importance

Benefits of specialisation; clarity in working relationships; optimum use of resources; adaptation to change; effective administration; development of personnel; expansion and growth.

Structure	Meaning	Merits	Demerits
Line (military)	Authority flows vertically from top to bottom	Simple, quick decisions, unity of command, discipline	Overloads executives, lacks specialists, rigidity
Line and staff	Line managers have authority; staff specialists advise (legal, HR, research)	Expert advice, line freed for execution	Conflict between line and staff, staff lack authority
Functional	Specialists control functions across departments (Taylor)	Specialisation, efficiency	Violates unity of command, confusion
Functional structure (departments by function)	Grouping by major functions	Specialisation, control, coordination within function	Inter-departmental conflict, difficult for diversified firms
Divisional structure	Separate divisions for products/regions, each with its own functions	Accountability, flexibility, growth, managerial development	Duplication of resources, costly, conflict over resources
Matrix	Dual authority – functional and project managers	Flexibility, use of experts for projects	Two bosses, power struggles
Project	Temporary team for a specific project	Focus	Temporary, uncertainty
Committee	Group of people for decisions	Pooled knowledge	Delay, compromise
Network / virtual / boundaryless	Outsourced activities connected by technology	Lean, flexible	Less control

Formal and informal organisation

Basis	Formal	Informal
Creation	Deliberately created by management	Arises spontaneously from social interaction
Purpose	Achieve organisational goals	Satisfy social and psychological needs
Structure	Well-defined, organisation chart	No definite structure ("grapevine")
Communication	Official channels (scalar chain)	Grapevine – fast but may spread rumours
Rules	Written rules and policies	Group norms
Leadership	Managers by position	Leaders chosen by members

Delegation is the process by which a manager **assigns tasks and grants authority** to subordinates while remaining **accountable** for the results.

Elements of delegation

Element	Meaning	Can it be delegated?
Responsibility	Obligation of a subordinate to perform the assigned duty	Arises from the superior–subordinate relationship
Authority	Right to command and take decisions; flows downward	**Yes**
Accountability	Answerability for the final outcome; flows upward	**No – cannot be delegated**

REMEMBER **"Authority can be delegated, but accountability (ultimate responsibility) cannot."** Authority should be commensurate with responsibility (parity principle).

Principles of delegation

Delegation by results expected; parity of authority and responsibility; absoluteness of accountability; **unity of command**; scalar principle; authority-level principle (decide within your authority; refer the rest); exception principle (only exceptional matters go up).

Barriers to delegation

On the part of the superior: fear of losing power, lack of confidence in subordinates, "I can do it better myself" attitude, fear of being exposed, lack of controls. **On the part of subordinates**: fear of criticism, lack of information and resources, lack of self-confidence, no incentives.

5.7 Leadership and motivation

Motivation is the process of **stimulating people to act to achieve desired goals**. Terms: **motive** (inner state that energises behaviour), **motivation** (process), **motivators** (incentives used).

Maslow's need hierarchy theory (1943)

Abraham Maslow said human needs form a hierarchy; a higher need motivates only after the lower need is reasonably satisfied, and a satisfied need no longer motivates.

Level (bottom → top)	Needs	Workplace example
1. **Physiological**	Food, clothing, shelter	Basic salary
2. **Safety/security**	Job security, protection from danger	Permanent job, pension, insurance
3. **Social (belonging)**	Affection, acceptance, friendship	Team work, friendly colleagues
4. **Esteem**	Self-respect, recognition, status	Titles, awards, promotion
5. **Self-actualisation**	Becoming what one is capable of	Challenging work, growth

Criticism: needs do not always follow a strict order; individuals differ in what they value most; several needs may operate together; the theory is difficult to test empirically.

Herzberg's two-factor theory (motivation-hygiene theory)

Frederick Herzberg (1959), based on interviews of about 200 engineers and accountants in Pittsburgh.

Hygiene (maintenance) factors	Motivators (satisfiers)
Their absence causes **dissatisfaction**; presence only prevents dissatisfaction	Their presence causes **satisfaction and motivation**
Company policy, supervision, salary, interpersonal relations, working conditions, job security, status	Achievement, recognition, work itself, responsibility, advancement, growth
Extrinsic (job context)	**Intrinsic** (job content)

Implication: **job enrichment** – make jobs more challenging and responsible.

McGregor's Theory X and Theory Y

Douglas McGregor (*The Human Side of Enterprise*, 1960).

Theory X (traditional, pessimistic)	Theory Y (modern, optimistic)
Average person dislikes work and avoids it	Work is as natural as play or rest
Must be coerced, controlled, threatened	Self-direction and self-control if committed
Avoids responsibility, prefers to be directed	Accepts and seeks responsibility
Little ambition; wants security	Creativity is widely distributed
Autocratic leadership, close supervision	Participative leadership, delegation

Theory Z (William Ouchi, 1981) – Japanese style: lifetime employment, collective decision making, trust and loyalty.

Comparison of Maslow and Herzberg

Maslow's lower needs (physiological, safety, social) roughly correspond to Herzberg's **hygiene factors**; esteem and self-actualisation correspond to **motivators**. Maslow's theory is descriptive and general; Herzberg's is prescriptive and job-focused.

Financial and non-financial incentives

- **Financial**: pay and allowances, bonus, profit sharing, **ESOPs** (employee stock options), commission, retirement benefits, perquisites.
- **Non-financial**: status, organisational climate, career advancement, job enrichment, employee recognition, job security, **employee participation**, empowerment.

Leadership is the **ability to influence the behaviour of people** to strive willingly for group objectives. Every manager should be a leader, but every leader need not be a manager.

Qualities of a good leader

Physical fitness, knowledge, integrity, initiative, communication skills, motivation skills, self-confidence, decisiveness, social skills, emotional intelligence, vision.

Leadership styles (based on use of authority)

Style	Features	Suitable when
Autocratic (authoritarian)	Leader takes all decisions, expects obedience; one-way communication	Crisis, unskilled workers, quick decisions
Democratic (participative)	Decisions after consultation; two-way communication	Skilled, motivated employees
Laissez-faire (free-rein)	Leader gives complete freedom; acts as a contact person	Highly competent, self-motivated experts (research)

Leadership theories

- **Trait theory** – leaders are born with certain traits ("great man" theory).
- **Behavioural theories** – Ohio State studies (initiating structure and consideration); Michigan studies (employee-oriented vs production-oriented); **Managerial Grid** (Blake and Mouton) – 1,1 impoverished; 9,1 task; 1,9 country club; 5,5 middle-of-the-road; **9,9 team management** (best).
- **Situational / contingency theories** – Fiedler's contingency model; **Hersey–Blanchard** situational leadership (telling, selling, participating, delegating based on follower maturity); path–goal theory (House).
- **Transactional** (rewards for performance) vs **transformational** (inspires vision and change) leadership.

Other process theories of motivation

- **Vroom's expectancy theory (1964)**: Motivation = Expectancy × Instrumentality × Valence. A person works hard if they believe effort leads to performance, performance leads to a reward, and the reward is valued.
- **Adams' equity theory**: employees compare their input–output ratio with others; perceived unfairness reduces effort.
- **McClelland's need theory**: needs for achievement, affiliation and power.
- **Alderfer's ERG theory**: Existence, Relatedness and Growth needs; more than one need can operate at a time (frustration–regression).

> NOTE **Leadership exists only when there are followers – a leader without followers is not a leader.**

5.8 Communication, coordination and collaboration

- **Communication** – transfer of information and understanding; process: sender → encoding → message → channel → decoding → receiver → **feedback**.

Coordination is the process of **synchronising and integrating the activities** of different individuals and departments to achieve common goals. It is the **essence of management** (Koontz) – not a separate function, but an outcome of all functions.

Features

Integrates group efforts; ensures unity of action; continuous process; all-pervasive; responsibility of all managers; deliberate function.

Importance

Growth in size of organisations; functional differentiation (departments pursue own goals); specialisation (specialists think their work is most important) – coordination reconciles these.

Types

- **Internal** (within the organisation) and **external** (with suppliers, government, customers).
- **Vertical** (between levels) and **horizontal** (between departments at the same level).

Techniques of coordination

Sound planning; clear organisation structure; effective communication; committees and meetings; **coordination by leadership**; staff and liaison officers; MBO; information technology (ERP systems).

Principles of coordination (Mary Parker Follett)

1. **Direct contact** among responsible people.
2. **Early stages** – coordination should start at the planning stage.
3. **Reciprocal relationships** – all factors are interdependent.
4. **Continuity** – coordination is an ongoing process.

Cooperation vs coordination

Basis	Cooperation	Coordination
Meaning	Voluntary willingness to work together	Deliberate integration of efforts by management
Nature	Informal, voluntary	Formal, managerial function
Origin	Arises from individuals' attitude	Arises from management action
Need	Necessary but not sufficient	Necessary for achieving goals

- **Collaboration** – people or firms working **jointly towards a shared goal**, sharing resources and decisions. Success factors: shared vision, **mutual trust and respect**, open communication, clear roles, shared rewards, supportive leadership and technology.

5.9 Monitoring and control

Controlling is the process of **measuring actual performance, comparing it with standards and taking corrective action** to ensure that organisational goals are achieved as planned.

Features

Goal-oriented; pervasive; continuous; **looking both backward and forward**; the **last function** but leads back to planning.

Importance

Accomplishing goals; judging accuracy of standards; efficient use of resources; improving employee motivation; ensuring order and discipline; facilitating coordination.

Limitations

Difficulty in setting quantitative standards for all activities; little control on external factors; resistance from employees; costly.

Relationship between planning and controlling

Planning is the **basis of controlling** (sets standards); controlling ensures plans are achieved. "Planning without controlling is meaningless; controlling without planning is blind." Both are **forward-looking and backward-looking**.

- **Feedforward (preventive)** – before the activity (quality of inputs).
- **Concurrent (steering)** – during the activity (supervision).
- **Feedback (post-action)** – after the activity (financial statements, appraisal).

Control by timing	Meaning
Feedforward (preventive)	Anticipates problems **before** the activity starts (inspection of raw material)
Concurrent (steering)	During the activity (supervision on the shop floor)
Feedback	**After** the activity – compares results with standards to correct future action

- **Performance monitoring** = continuously tracking actual performance against targets using KPIs, reports and reviews, so that deviations are spotted early.