



CMA FOUNDATION · PAPER 4 · FUNDAMENTALS OF BUSINESS
ECONOMICS AND MANAGEMENT

Student Notes

Chapter 1 · Basic Concepts



What economics is · utility, wealth and production · demand, supply and elasticity · the theory of production · costs · the means of production

Built from the Shuchita CMA Foundation Scanner, 2026 July edition (Thirtieth), and its printed front matter.

How to use these notes

Work block by block. Start with the “Read first” line, which sends you to the CHEAT SHEET your Scanner already prints for that block — these notes do not repeat it. Then read the NOTES panel, which carries only what the CHEAT SHEET does not: what the examiner has actually asked, and where the marks are lost.

Then prepare level by level. Each level names the **skill the question calls for** and lists the exact Scanner questions to practise at that level, so you can see what the demand looks like before you meet it in the hall.

Question lines show: **printed section · sitting · question number · marks · Scanner page**, then the section again in the column beside it and the **difficulty** of the question. **PYQ** is a past-year question, **MQP** a Mock Question Paper question, **MODEL** a Model question, **CSEET** a question carried from that course. All four are printed in your Scanner; nothing here is invented.

The heading above each group names the skill — **REMEMBERING, UNDERSTANDING, APPLYING, ANALYSING**. Every Foundation question is an objective, so the band is read from what the question

gives you and what it asks you to do between the stem and the options. **ICMAI publishes no skill-assessment grid** for the Foundation papers, so no weighting is implied here on the Institute's behalf.

STUDY PRIORITY GUIDE

Block Ranking — Chapter 1

The opening chapter and the widest: six blocks covering everything from the definition of economics to the shape of the average cost curve. Demand and supply is the heaviest block and the one every later chapter leans on. None of the six is rated A, but together they carry nearly a quarter of the paper.

SKILL REQUIRED Chapter 1 · share of the chapter's 239 marks

Analysing	5%	13 of 239 marks · 15 questions
Applying	6%	14 of 239 marks · 17 questions
Understanding	25%	59 of 239 marks · 47 questions
Remembering	64%	153 of 239 marks · 167 questions

Recalling and explaining **89%** · applying, analysing and judging **11%** — this chapter reads **weighted towards recall and explanation**

This chapter is answered from definitions, named economists and the shapes of half a dozen curves. Where a calculation appears it is a single substitution into an elasticity or a cost formula. Learn the names and the curve relationships; the arithmetic will look after itself.

Bands are SITS-assigned by written rubric (v1-CMA-Foundation) from what the objective gives and what it asks. ICAI publishes no skill-assessment grid for the Foundation papers, so no weighting is implied on the Institute's behalf.

#	IMP.	BLOCK	BLOCK NAME	SHARE	CUM.	QNS
1	B	1.3	Theory of Demand, Supply & Equilibrium Demand	34.1%	34%	84
2	B	1.1	The Fundamentals of Economics	18.7%	53%	46
3	C	1.4	Theory of Production	16.3%	69%	40
4	C	1.5	Cost of Production	14.2%	83%	35
5	C	1.2	Utility, Wealth & Production	11.4%	95%	28
6	D	1.6	Means of Production	5.3%	100%	13

Rank is by the number of questions the Scanner prints for the block. IMP. is the Importance grade the Scanner's own contents page prints for that block, from A (very important) to D (lowest priority). Where the two disagree,

the question count is the better guide to what will be asked and the grade the better guide to what it will be worth.

CHAPTER 1

Basic Concepts

The Fundamentals of Economics

CMAL1P4-C1-B1.1 · IMPORTANCE B · SCANNER PAGE 1 · 46 QUESTIONS

Read first The CHEAT SHEET at the head of block 1.1 in your Scanner, pages 1 to 6. These notes do not repeat it.

NOTES

Adam Smith	the father of economics; wealth definition, An Enquiry into the Nature and Causes of the Wealth of Nations, 1776
Alfred Marshall	welfare definition; changed the name from political economy to economics
Lionel Robbins	scarcity definition — ends and scarce means with alternative uses
Paul Samuelson	growth definition; coined the terms micro and macro economics

Micro from the Greek mikros, **small**; **macro from** makros, **large**. Micro studies individual units — a firm, a household, a price. Macro studies the economy as a whole — national income, inflation, unemployment. The crude-oil-and-inflation question is macro; a single firm's pricing is micro.

Positive against normative. Positive economics describes what **is**; normative economics judges what **ought to be** — what to produce, for whom to produce.

The three central problems of every economy: what to produce, how to produce, for whom to produce. Scarcity is what creates them; abundance of resources is not one of them.

How to produce is settled by the relative prices of the factors — the demand for and supply of factor inputs.

Economic resources are limited in supply and have alternative uses. Both halves are needed; an option giving only one is wrong.

The barter system's defect is the lack of a double coincidence of wants — that one phrase is the answer whenever barter is mentioned.

ANALYSING two or more steps, or two ideas weighed together ◀ **NEW BAND — bullets outstanding**

PYQ 2025-Jun · Q 2 · 2 marks · p 14

PYQ

Hard

APPLYING one step of arithmetic, or one substitution ◀ **NEW BAND — bullets outstanding**

PYQ 2015-Dec · Q 3 · 1 mark · p 8

PYQ

Easy

PYQ 2026-Jun · Q 4 · 2 marks · p 15

PYQ

Easy

UNDERSTANDING a concept told apart from its neighbours

- "Which is not a central problem" is answered by the option that is a resource condition rather than a decision.
- Economics is not given the status of a pure science because its conclusions are not uniform and its experiments cannot be controlled.

PYQ 2015-Sep · Q 1 · 1 mark · p 7

PYQ

Easy

PYQ 2015-Jun · Q 2 · 1 mark · p 7

PYQ

Easy

PYQ 2016-Mar · Q 1 · 1 mark · p 9

PYQ

Medium

PYQ 2016-Jun · Q 3 · 1 mark · p 9

PYQ

Easy

PYQ 2024-Jun · Q 2 · 2 marks · p 13

PYQ

Easy

PYQ 2025-Jun · Q 1 · 2 marks · p 14

PYQ

Easy

PYQ 2025-Dec · Q 1 · 2 marks · p 14

PYQ

Easy

PYQ 2026-Jun · Q 2 · 2 marks · p 15

PYQ

Medium

PYQ 2026-Jun · Q 3 · 2 marks · p 15

PYQ

Medium

REMEMBERING one printed fact, recalled

- Learn the four economists and their definitions as a table. Two or three marks a sitting turn on nothing else, and the four names are always the four options.
- 1776 is the year of the Wealth of Nations, and it is asked as a date question in its own right.

MQP 2024-Jun · Q 1 · no marks printed · p 5	MQP mock paper	Easy
MQP 2024-Dec S1 · Q 2 · no marks printed · p 5	MQP mock paper	Easy
MQP 2025-Jun S2 · Q 3 · no marks printed · p 5	MQP mock paper	Easy
MQP 2025-Dec S1 · Q 4 · no marks printed · p 5	MQP mock paper	Easy
MQP 2025-Dec S2 · Q 5 · no marks printed · p 5	MQP mock paper	Easy
MQP 2025-Dec S2 · Q 6 · no marks printed · p 6	MQP mock paper	Easy
MQP 2025-Dec S1 · Q 7 · no marks printed · p 6	MQP mock paper	Easy
PYQ 2015-Mar · Q 1 · 1 mark · p 7	PYQ	Easy
PYQ 2015-Jun · Q 1 · 1 mark · p 7	PYQ	Easy
PYQ 2015-Dec · Q 1 · 1 mark · p 8	PYQ	Easy
PYQ 2015-Sep · Q 2 · 1 mark · p 8	PYQ	Easy
PYQ 2015-Dec · Q 2 · 1 mark · p 8	PYQ	Easy
PYQ 2015-Dec · Q 4 · 1 mark · p 8	PYQ	Easy
PYQ 2015-Dec · Q 5 · 1 mark · p 8	PYQ	Easy
PYQ 2016-Jun · Q 1 · 1 mark · p 9	PYQ	Easy
PYQ 2016-Jun · Q 2 · 1 mark · p 9	PYQ	Easy
PYQ 2016-Dec · Q 1(i) · 1 mark · p 10	PYQ	Easy
PYQ 2016-Dec · Q 1(ii) · 1 mark · p 10	PYQ	Easy
PYQ 2017-Jun · Q 1(i) · 1 mark · p 10	PYQ	Easy
PYQ 2018-Jun · Q 1(i) · 1 mark · p 10	PYQ	Easy

PYQ 2018-Dec · Q 1(i) · 1 mark · p 11	PYQ	Easy
PYQ 2019-Jun · Q 1(i) · 1 mark · p 11	PYQ	Easy
PYQ 2019-Dec · Q 1(i) · 1 mark · p 11	PYQ	Easy
PYQ 2022-Dec · Q 1 · 1 mark · p 11	PYQ	Easy
PYQ 2023-Jun · Q 1 · 2 marks · p 12	PYQ	Easy
PYQ 2023-Dec · Q 1 · 2 marks · p 12	PYQ	Easy
PYQ 2023-Jun · Q 2 · 2 marks · p 12	PYQ	Easy
PYQ 2023-Dec · Q 2 · 2 marks · p 12	PYQ	Easy
PYQ 2024-Jun · Q 1 · 2 marks · p 13	PYQ	Easy
PYQ 2024-Dec · Q 1 · 2 marks · p 13	PYQ	Easy
PYQ 2024-Dec · Q 2 · 2 marks · p 13	PYQ	Easy
PYQ 2024-Dec · Q 3 · 2 marks · p 13	PYQ	Easy
PYQ 2024-Dec · Q 4 · 2 marks · p 13	PYQ	Easy
PYQ 2026-Jun · Q 1 · 2 marks · p 14	PYQ	Easy

Utility, Wealth & Production

CMAL1P4-C1-B1.2 · IMPORTANCE C · SCANNER PAGE 17 · 28 QUESTIONS

Read first The CHEAT SHEET at the head of block 1.2 in your Scanner, pages 17 to 22. These notes do not repeat it.

NOTES

The four factors of production — land, labour, capital, organisation (enterprise). **Land is the gift of nature; capital is the produced means of production; labour is the second factor.** A bank loan is finance, not a factor.

Form utility	changing the shape — wood into a table; created by production
Place utility	moving the good; created by transport
Time utility	holding the good; created by storage
Possession utility	transferring ownership; created by trade

The Law of Diminishing Marginal Utility — Gossen's first law, developed by **Alfred Marshall** — is the **first law of consumption**. As more units are consumed, marginal utility falls.

When total utility is at its maximum, marginal utility is zero. Beyond that point marginal utility is negative and total utility falls. If an extra unit leaves total utility unchanged, its marginal utility is zero.

Consumer's surplus is the difference between what a consumer is willing to pay and what he actually pays.

The equilibrium condition $Y = C + I$, and $S = I$. Income minus savings is consumption.

The production possibility frontier is concave to the origin, and any point **beyond** it is unattainable. It is negatively sloped because resources are scarce, and it shows the maximum combinations of **two** products.

Economic goods are scarce goods — they have a price. Free goods do not.

ANALYSING two or more steps, or two ideas weighed together

- For the equi-marginal utility questions, set $MU_x / P_x = MU_y / P_y$ and solve for the missing term; the ratio, not the raw utility, is what equalises.

PYQ 2016-Mar · Q 1 · 1 mark · p 20

PYQ

Hard

APPLYING one step of arithmetic, or one substitution ◀ **NEW BAND — bullets outstanding**

PYQ 2018-Dec · Q 1(iii) · 1 mark · p 22

PYQ

Easy

UNDERSTANDING a concept told apart from its neighbours

- "Which is not a factor of production" is answered by whichever option is money rather than a real resource — usually a bank loan.

PYQ 2019-Dec · Q 1(i) · 1 mark · p 23	PYQ	Easy
PYQ 2025-Jun · Q 2 · 2 marks · p 24	PYQ	Medium
PYQ 2026-Jun · Q 1 · 2 marks · p 25	PYQ	Easy

REMEMBERING one printed fact, recalled

- Learn the four utilities with their examples. "A piece of wood becomes a table" is form utility, and it is asked in those words.
- Land is the gift of nature; capital is produced. Both are asked directly and the four factors are always the four options.

MQP 2024-Dec S1 · Q 1 · no marks printed · p 19	MQP mock paper	Easy
MQP 2025-Jun S1 · Q 2 · no marks printed · p 19	MQP mock paper	Easy
MQP 2025-Jun S1 · Q 3 · no marks printed · p 19	MQP mock paper	Easy
MQP 2025-Dec S1 · Q 4 · no marks printed · p 19	MQP mock paper	Easy
PYQ 2016-Jun · Q 1 · 1 mark · p 20	PYQ	Easy
PYQ 2017-Jun · Q 1(i) · 1 mark · p 20	PYQ	Easy
PYQ 2017-Dec · Q 1(i) · 1 mark · p 21	PYQ	Easy
PYQ 2017-Dec · Q 1(ii) · 1 mark · p 21	PYQ	Easy
PYQ 2017-Dec · Q 1(iii) · 1 mark · p 21	PYQ	Easy
PYQ 2017-Dec · Q 1(iv) · 1 mark · p 21	PYQ	Easy
PYQ 2017-Dec · Q 1(v) · 1 mark · p 21	PYQ	Easy
PYQ 2018-Jun · Q 1(i) · 1 mark · p 22	PYQ	Easy
PYQ 2018-Dec · Q 1(i) · 1 mark · p 22	PYQ	Easy
PYQ 2018-Dec · Q 1(ii) · 1 mark · p 22	PYQ	Easy

PYQ 2022-Dec · Q 1 · 1 mark · p 23	PYQ	Easy
PYQ 2023-Jun · Q 1 · 2 marks · p 23	PYQ	Easy
PYQ 2023-Dec · Q 1 · 2 marks · p 23	PYQ	Easy
PYQ 2024-Dec · Q 1 · 2 marks · p 24	PYQ	Easy
PYQ 2025-Jun · Q 1 · 2 marks · p 24	PYQ	Easy
PYQ 2024-Dec · Q 2 · 2 marks · p 24	PYQ	Easy
PYQ 2024-Dec · Q 3 · 2 marks · p 24	PYQ	Easy
PYQ 2025-Dec · Q 1 · 2 marks · p 25	PYQ	Easy
PYQ 2026-Jun · Q 2 · 2 marks · p 25	PYQ	Easy

Theory of Demand, Supply & Equilibrium Demand

CMAL1P4-C1-B1.3 · IMPORTANCE B · SCANNER PAGE 29 · 84 QUESTIONS

Read first The CHEAT SHEET at the head of block 1.3 in your Scanner, pages 29 to 34. These notes do not repeat it.

NOTES

Price elasticity of demand	$Ed = (\% \text{ change in quantity}) \div (\% \text{ change in price})$, taken as a positive number
Elastic	$Ed > 1$ — luxuries; a price rise reduces total revenue
Inelastic	$Ed < 1$ — salt, necessities, goods with no substitutes; a price rise raises total revenue
Unitary	$Ed = 1$ — total revenue unchanged
Cross elasticity positive	substitutes
Cross elasticity negative	complements

Income elasticity negative

inferior goods

The revenue rule, which answers a family of questions. Total revenue rises with a price increase only when demand is inelastic — that is, when the percentage change in quantity is **less** than the percentage change in price.

Applying an elasticity. Where E_d is given as -6 and the price rises 20%, quantity falls 120%, so the answer is that demand would fall to zero; where E_d is -0.6 , quantity falls 12%. Multiply, do not add.

Demand and supply functions are read straight off. For $S_x = 5P_x + 3$, substitute the price. For $d_x = 12 - 2P_x$, the same. The equilibrium is where the two functions are equal.

Market demand is the horizontal summation of the individual demand curves.

Shifts. If demand and supply both shift outward but demand shifts more, both price and quantity rise. Quantity always rises when both shift out; price depends on which shifts more.

Three prices, three time horizons. **Market price** is very short run; **normal price** is the long-run equilibrium; **reserve price** is the seller's minimum.

Perishable goods have highly inelastic supply, because they cannot be held back.

ANALYSING two or more steps, or two ideas weighed together

- The two-point elasticity questions give an old and a new price and quantity. Use the percentage change on the original values unless the question names the midpoint method.
- "By how much will revenue change" needs the elasticity applied to quantity first, then the new price times the new quantity.

MQP 2024-Jun · Q 1 · no marks printed · p 33

MQP
mock paper

Hard

MQP 2025-Jun S1 · Q 10 · no marks printed · p 34

MQP
mock paper

Hard

PYQ 2015-Mar · Q 2 · 1 mark · p 36

PYQ

Hard

PYQ 2015-Mar · Q 3 · 1 mark · p 36

PYQ

Hard

PYQ 2015-Jun · Q 4 · 1 mark · p 38

PYQ

Hard

PYQ 2015-Sep · Q 1 · 1 mark · p 39

PYQ

Hard

PYQ 2016-Mar · Q 1 · 1 mark · p 41

PYQ

Hard

APPLYING one step of arithmetic, or one substitution

- For any elasticity computation, write the two percentage changes down before dividing. Most wrong answers come from dividing the wrong way round.
- Where a supply or demand function is given, substitute and stop — the question rarely wants the equilibrium unless it says so.

MQP 2024-Dec S1 · Q 5 · no marks printed · p 34	MQP mock paper	Easy
MQP 2025-Jun S1 · Q 9 · no marks printed · p 34	MQP mock paper	Medium
PYQ 2015-Mar · Q 4 · 1 mark · p 36	PYQ	Easy
PYQ 2015-Jun · Q 5 · 1 mark · p 38	PYQ	Medium
PYQ 2015-Jun · Q 8 · 1 mark · p 39	PYQ	Easy
PYQ 2015-Dec · Q 3 · 1 mark · p 40	PYQ	Easy
PYQ 2016-Mar · Q 2 · 1 mark · p 41	PYQ	Easy
PYQ 2016-Jun · Q 2 · 1 mark · p 42	PYQ	Medium
PYQ 2022-Dec · Q 3 · 1 mark · p 47	PYQ	Easy

UNDERSTANDING a concept told apart from its neighbours

- "Which is not a factor in market supply" is answered by the option that belongs to demand — usually consumers' income or taste.

MQP 2025-Dec S2 · Q 15 · no marks printed · p 35	MQP mock paper	Easy
PYQ 2015-Jun · Q 2 · 1 mark · p 37	PYQ	Easy
PYQ 2015-Jun · Q 3 · 1 mark · p 38	PYQ	Medium
PYQ 2015-Sep · Q 2 · 1 mark · p 39	PYQ	Easy
PYQ 2015-Dec · Q 1 · 1 mark · p 40	PYQ	Easy

PYQ 2015-Dec · Q 2 · 1 mark · p 40	PYQ	Easy
PYQ 2015-Dec · Q 4 · 1 mark · p 40	PYQ	Medium
PYQ 2018-Dec · Q 1(ii) · 1 mark · p 45	PYQ	Easy
PYQ 2022-Dec · Q 1 · 1 mark · p 46	PYQ	Medium
PYQ 2022-Dec · Q 2 · 1 mark · p 46	PYQ	Easy
PYQ 2023-Jun · Q 1 · 2 marks · p 47	PYQ	Easy
PYQ 2023-Dec · Q 2 · 2 marks · p 47	PYQ	Medium
PYQ 2024-Dec · Q 1 · 2 marks · p 48	PYQ	Medium
PYQ 2025-Dec · Q 1 · 2 marks · p 49	PYQ	Easy
PYQ 2025-Dec · Q 2 · 2 marks · p 50	PYQ	Easy
PYQ 2025-Dec · Q 3 · 2 marks · p 50	PYQ	Easy

REMEMBERING one printed fact, recalled

- Salt is the standard inelastic good and luxuries the standard elastic ones; the reason asked for is the absence or presence of substitutes.
- Positive cross elasticity means substitutes; negative means complements. The sign is the whole answer.

MQP 2024-Jun · Q 2 · no marks printed · p 33	MQP mock paper	Easy
MQP 2024-Jun · Q 3 · no marks printed · p 33	MQP mock paper	Easy
MQP 2024-Dec S1 · Q 4 · no marks printed · p 33	MQP mock paper	Easy
MQP 2024-Dec S2 · Q 6 · no marks printed · p 34	MQP mock paper	Easy
MQP 2024-Dec S2 · Q 7 · no marks printed · p 34	MQP mock paper	Easy
MQP 2024-Dec S2 · Q 8 · no marks printed · p 34	MQP mock paper	Easy
MQP 2025-Jun S2 · Q 11 · no marks printed · p 35	MQP	Easy

	mock paper	
MQP 2025-Jun S2 · Q 12 · no marks printed · p 35	MQP mock paper	Easy
MQP 2025-Jun S2 · Q 13 · no marks printed · p 35	MQP mock paper	Easy
MQP 2025-Dec S2 · Q 14 · no marks printed · p 35	MQP mock paper	Easy
PYQ 2015-Mar · Q 1 · 1 mark · p 36	PYQ	Easy
PYQ 2015-Jun · Q 1 · 1 mark · p 37	PYQ	Easy
PYQ 2015-Mar · Q 5 · 1 mark · p 37	PYQ	Easy
PYQ 2015-Mar · Q 6 · 1 mark · p 37	PYQ	Easy
PYQ 2015-Jun · Q 6 · 1 mark · p 38	PYQ	Easy
PYQ 2015-Jun · Q 7 · 1 mark · p 38	PYQ	Easy
PYQ 2015-Jun · Q 9 · 1 mark · p 39	PYQ	Easy
PYQ 2015-Jun · Q 10 · 1 mark · p 39	PYQ	Easy
PYQ 2015-Sep · Q 3 · 1 mark · p 40	PYQ	Easy
PYQ 2015-Dec · Q 5 · 1 mark · p 41	PYQ	Easy
PYQ 2015-Dec · Q 6 · 1 mark · p 41	PYQ	Easy
PYQ 2016-Jun · Q 1 · 1 mark · p 42	PYQ	Easy
PYQ 2016-Jun · Q 3 · 1 mark · p 42	PYQ	Easy
PYQ 2016-Jun · Q 4 · 1 mark · p 42	PYQ	Easy
PYQ 2016-Jun · Q 5 · 1 mark · p 42	PYQ	Easy
PYQ 2016-Dec · Q 1(i) · 1 mark · p 43	PYQ	Easy
PYQ 2017-Jun · Q 1(i) · 1 mark · p 43	PYQ	Easy

PYQ 2017-Dec · Q 1(i) · 1 mark · p 43	PYQ	Easy
PYQ 2016-Jun · Q 6 · 1 mark · p 43	PYQ	Easy
PYQ 2017-Dec · Q 1(ii) · 1 mark · p 44	PYQ	Easy
PYQ 2018-Jun · Q 1(i) · 1 mark · p 44	PYQ	Easy
PYQ 2018-Jun · Q 1(ii) · 1 mark · p 44	PYQ	Easy
PYQ 2018-Dec · Q 1(i) · 1 mark · p 44	PYQ	Easy
PYQ 2018-Dec · Q 1(iii) · 1 mark · p 45	PYQ	Easy
PYQ 2019-Jun · Q 1(i) · 1 mark · p 45	PYQ	Easy
PYQ 2019-Jun · Q 1(ii) · 1 mark · p 45	PYQ	Easy
PYQ 2019-Jun · Q 1(iii) · 1 mark · p 45	PYQ	Easy
PYQ 2019-Dec · Q 1(i) · 1 mark · p 46	PYQ	Easy
PYQ 2019-Dec · Q 1(ii) · 1 mark · p 46	PYQ	Easy
PYQ 2019-Dec · Q 1(iii) · 1 mark · p 46	PYQ	Easy
PYQ 2023-Dec · Q 1 · 2 marks · p 47	PYQ	Easy
PYQ 2024-Jun · Q 1 · 2 marks · p 48	PYQ	Easy
PYQ 2024-Jun · Q 2 · 2 marks · p 48	PYQ	Easy
PYQ 2024-Dec · Q 2 · 2 marks · p 48	PYQ	Easy
PYQ 2024-Dec · Q 3 · 2 marks · p 48	PYQ	Easy
PYQ 2025-Jun · Q 1 · 2 marks · p 49	PYQ	Easy

PYQ 2025-Jun · Q 2 · 2 marks · p 49	PYQ	Easy
PYQ 2025-Jun · Q 3 · 2 marks · p 49	PYQ	Easy
PYQ 2025-Dec · Q 4 · 2 marks · p 50	PYQ	Easy
PYQ 2026-Jun · Q 1 · 2 marks · p 51	PYQ	Easy
PYQ 2026-Jun · Q 2 · 2 marks · p 51	PYQ	Easy
PYQ 2026-Jun · Q 3 · 2 marks · p 51	PYQ	Easy

Theory of Production

CMAL1P4-C1-B1.4 · IMPORTANCE C · SCANNER PAGE 53 · 40 QUESTIONS

Read first The CHEAT SHEET at the head of block 1.4 in your Scanner, pages 53 to 58. These notes do not repeat it.

NOTES

The **production function** is the technical relationship between physical inputs and physical output.

Short run	at least one factor is fixed — the Law of Variable Proportions applies
Long run	all factors are variable — Returns to Scale apply
Law of Variable Proportions	three stages — increasing returns, diminishing returns, negative returns
Total product is maximum	when marginal product is zero
Average product is maximum	where MP cuts AP from above

The MP-AP relationship, which is asked in several disguises. When MP is above AP, AP rises; when MP is below AP, AP falls; when MP equals AP, AP is at its maximum. So an MP below AP means AP is falling.

The point of inflection on the total product curve is where increasing returns give way to diminishing returns — TP is still rising, but more slowly.

Returns to scale give the long-run average cost curve its **U shape**, or a saucer shape where the

middle is flat. Economies of scale bring LAC down; diseconomies take it back up.

Elasticity of substitution. Perfect substitutes give infinity; goods that cannot be substituted at all give zero.

Quasi-rent is the surplus earned by a factor in the short run, and it is **greater than** the firm's total profit because it does not deduct fixed costs.

The PPF shifts outward when resources increase or technology improves.

ANALYSING two or more steps, or two ideas weighed together ◀ **NEW BAND — bullets outstanding**

PYQ 2019-Jun · Q 1(i) · 1 mark · p 62	PYQ	Hard
PYQ 2019-Dec · Q 1(ii) · 1 mark · p 63	PYQ	Hard

APPLYING one step of arithmetic, or one substitution ◀ **NEW BAND — bullets outstanding**

MQP 2025-Jun S2 · Q 10 · no marks printed · p 56	MQP mock paper	Easy
PYQ 2016-Jun · Q 2 · 1 mark · p 60	PYQ	Easy
PYQ 2017-Dec · Q 1(i) · 1 mark · p 61	PYQ	Easy

UNDERSTANDING a concept told apart from its neighbours

- The Law of Increasing Returns operates because fixed indivisible factors are being used more fully — not because labour works harder.
- A variable factor is one that can be changed in the short run; the definition is asked in exactly that form.

MQP 2024-Jun · Q 2 · no marks printed · p 55	MQP mock paper	Medium
MQP 2024-Jun · Q 3 · no marks printed · p 55	MQP mock paper	Easy
MQP 2024-Dec S2 · Q 8 · no marks printed · p 56	MQP mock paper	Easy
PYQ 2015-Mar · Q 1 · 1 mark · p 59	PYQ	Easy
PYQ 2015-Sep · Q 1 · 1 mark · p 59	PYQ	Easy
PYQ 2023-Jun · Q 1 · 2 marks · p 63	PYQ	Easy

PYQ 2024-Jun · Q 1 · 2 marks · p 64	PYQ	Easy
PYQ 2025-Dec · Q 1 · 2 marks · p 64	PYQ	Easy

REMEMBERING one printed fact, recalled

- Learn the five relationships in the table. "Total product is maximum when MP is zero" is asked verbatim at almost every sitting.
- The Law of Variable Proportions has three stages, not two and not five.

MQP 2024-Dec S1 · Q 1 · no marks printed · p 55	MQP mock paper	Easy
MQP 2024-Dec S1 · Q 4 · no marks printed · p 55	MQP mock paper	Easy
MQP 2024-Dec S1 · Q 5 · no marks printed · p 55	MQP mock paper	Easy
MQP 2024-Dec S1 · Q 6 · no marks printed · p 56	MQP mock paper	Easy
MQP 2024-Dec S2 · Q 7 · no marks printed · p 56	MQP mock paper	Easy
MQP 2025-Jun S1 · Q 9 · no marks printed · p 56	MQP mock paper	Easy
MQP 2025-Jun S2 · Q 11 · no marks printed · p 56	MQP mock paper	Easy
MQP 2025-Jun S2 · Q 12 · no marks printed · p 57	MQP mock paper	Easy
MQP 2025-Jun S2 · Q 13 · no marks printed · p 57	MQP mock paper	Easy
MQP 2025-Dec S2 · Q 14 · no marks printed · p 57	MQP mock paper	Easy
MQP 2025-Jun S2 · Q 15 · no marks printed · p 57	MQP mock paper	Easy
MQP 2024-Dec S1 · Q 16 · no marks printed · p 57	MQP mock paper	Easy
MQP · Q 17 · no marks printed · p 58	MQP mock paper	Easy
PYQ 2015-Jun · Q 1 · 1 mark · p 59	PYQ	Easy
PYQ 2015-Dec · Q 1 · 1 mark · p 60	PYQ	Easy

PYQ 2016-Mar · Q 1 · 1 mark · p 60	PYQ	Easy
PYQ 2016-Jun · Q 1 · 1 mark · p 60	PYQ	Easy
PYQ 2017-Jun · Q 1(i) · 1 mark · p 61	PYQ	Easy
PYQ 2018-Jun · Q 1(i) · 1 mark · p 61	PYQ	Easy
PYQ 2018-Jun · Q 1(ii) · 1 mark · p 61	PYQ	Easy
PYQ 2019-Jun · Q 1(ii) · 1 mark · p 62	PYQ	Easy
PYQ 2019-Jun · Q 1(iii) · 1 mark · p 62	PYQ	Easy
PYQ 2019-Dec · Q 1(i) · 1 mark · p 62	PYQ	Easy
PYQ 2022-Dec · Q 1 · 1 mark · p 63	PYQ	Easy
PYQ 2023-Dec · Q 1 · 2 marks · p 63	PYQ	Easy
PYQ 2025-Jun · Q 1 · 2 marks · p 64	PYQ	Easy
PYQ 2024-Jun · Q 2 · 2 marks · p 64	PYQ	Easy

Cost of Production

CMAL1P4-C1-B1.5 · IMPORTANCE C · SCANNER PAGE 65 · 35 QUESTIONS

Read first The CHEAT SHEET at the head of block 1.5 in your Scanner, pages 65 to 70. These notes do not repeat it.

NOTES

Explicit cost	actually paid out
Implicit cost	the owner's own factors — no payment made
Economic cost	explicit + implicit
Opportunity cost	the next best alternative forgone — also called alternative cost

Fixed cost	unchanged even if production stops
Marginal cost	the cost of one more unit

The curve relationships that answer most of this block. AFC falls continuously as output rises and **never touches the X-axis**. AVC and ATC are U-shaped. MC cuts both AVC and ATC at their **minimum points**. $ATC = AFC + AVC$.

The slope of the total variable cost curve is marginal cost. Asked directly.

TVC begins to rise at an increasing rate with the onset of diminishing returns.

Economies of scale are of two types — internal (arising within the firm) and external (arising in the industry). Internal economies and diseconomies come from changes at the level of the **firm**.

In the long run all costs are variable. There are no fixed costs in the long run — that is what makes it the long run.

LAC is the planning curve, the envelope of all the short-run average cost curves.

ANALYSING two or more steps, or two ideas weighed together

- Where explicit and total cost are given, the implicit cost is the difference; economic profit deducts both, accounting profit only the explicit.

MQP 2025-Jun S1 · Q 1 · no marks printed · p 68	MQP mock paper	Hard
PYQ 2015-Mar · Q 2 · 1 mark · p 70	PYQ	Hard
PYQ 2016-Mar · Q 1 · 1 mark · p 71	PYQ	Hard
PYQ 2022-Dec · Q 1 · 1 mark · p 74	PYQ	Hard

APPLYING one step of arithmetic, or one substitution

- Where ATC and AVC are given at a stated output, AFC is the difference and total fixed cost is AFC times output — two steps, both one line.

MQP 2024-Dec S2 · Q 4 · no marks printed · p 68	MQP mock paper	Easy
PYQ 2017-Jun · Q 1(ii) · 1 mark · p 72	PYQ	Easy

UNDERSTANDING a concept told apart from its neighbours

- AFC is the curve that approaches but never reaches the X-axis, because a fixed cost divided by any finite output is never zero.

MQP 2025-Dec S1 · Q 7 · no marks printed · p 69	MQP mock paper	Easy
PYQ 2015-Jun · Q 1 · 1 mark · p 70	PYQ	Easy
PYQ 2015-Sep · Q 2 · 1 mark · p 70	PYQ	Easy
PYQ 2016-Jun · Q 1 · 1 mark · p 72	PYQ	Easy
PYQ 2016-Jun · Q 2 · 1 mark · p 72	PYQ	Easy
PYQ 2019-Dec · Q 1(i) · 1 mark · p 74	PYQ	Easy
PYQ 2023-Dec · Q 1 · 2 marks · p 75	PYQ	Easy
PYQ 2025-Jun · Q 1 · 2 marks · p 76	PYQ	Easy
PYQ 2025-Dec · Q 1 · 2 marks · p 76	PYQ	Easy

REMEMBERING one printed fact, recalled

- Learn the six cost terms above and the curve relationships as two short lists. Nearly the whole block is one or the other.
- Opportunity cost is also called alternative cost, and fixed cost is the one that survives a shutdown.

MQP 2025-Jun S1 · Q 2 · no marks printed · p 68	MQP mock paper	Easy
MQP 2024-Jun · Q 3 · no marks printed · p 68	MQP mock paper	Easy
MQP 2024-Dec S2 · Q 5 · no marks printed · p 68	MQP mock paper	Easy
MQP 2024-Dec S2 · Q 6 · no marks printed · p 69	MQP mock paper	Easy
PYQ 2015-Mar · Q 1 · 1 mark · p 70	PYQ	Easy
PYQ 2015-Sep · Q 1 · 1 mark · p 70	PYQ	Easy

PYQ 2015-Dec · Q 1 · 1 mark · p 71	PYQ	Easy
PYQ 2016-Mar · Q 2 · 1 mark · p 71	PYQ	Easy
PYQ 2017-Jun · Q 1(i) · 1 mark · p 72	PYQ	Easy
PYQ 2016-Jun · Q 3 · 1 mark · p 72	PYQ	Easy
PYQ 2017-Dec · Q 1(i) · 1 mark · p 73	PYQ	Easy
PYQ 2017-Dec · Q 1(ii) · 1 mark · p 73	PYQ	Easy
PYQ 2018-Jun · Q 1(i) · 1 mark · p 73	PYQ	Easy
PYQ 2019-Jun · Q 1(i) · 1 mark · p 73	PYQ	Easy
PYQ 2019-Jun · Q 1(ii) · 1 mark · p 74	PYQ	Easy
PYQ 2019-Dec · Q 1(ii) · 1 mark · p 74	PYQ	Easy
PYQ 2024-Jun · Q 1 · 2 marks · p 75	PYQ	Easy
PYQ 2022-Dec · Q 2 · 1 mark · p 75	PYQ	Easy
PYQ 2022-Dec · Q 3 · 1 mark · p 75	PYQ	Easy
PYQ 2024-Jun · Q 2 · 2 marks · p 76	PYQ	Easy

Means of Production

CMAL1P4-C1-B1.6 · IMPORTANCE D · SCANNER PAGE 77 · 13 QUESTIONS

Read first The CHEAT SHEET at the head of block 1.6 in your Scanner, pages 77 to 80. These notes do not repeat it.

NOTES

Means of production are the instruments and materials with which production is carried on — machinery, tools, raw material, energy and knowledge. **Knowledge is the intangible one**, and finished consumer goods are not means of production at all.

Capitalism	private ownership, no government interference, surplus is unearned income to the owner
Socialism	state ownership; production aimed at direct satisfaction of needs , not profit; very low inequality
Mixed economy	both private and public sectors; ownership partly private and partly public

Pure capitalism exists nowhere today — every economy has some government role. The Study Material names **Cuba** as the example of a high degree of socialism.

Equilibrium price is determined where demand equals supply; disequilibrium arises when they are unequal.

In Marxian theory labour is compared with physical capital goods as the source of surplus, and the surplus product is the source of unearned income under capitalism.

UNDERSTANDING a concept told apart from its neighbours

- "Which is included in the means of production" is answered by the input, never by the finished or luxury good.

MODEL — · Q 2 · no marks printed · p 79

MODEL
model set

Easy

MODEL — · Q 5 · no marks printed · p 79

MODEL
model set

Easy

REMEMBERING one printed fact, recalled

- The smallest block in the chapter and almost entirely definitional. Learn the three economic systems as three rows and the block is complete.
- Knowledge is the intangible means of production; raw material and machinery are the tangible ones.

MODEL — · Q 1 · no marks printed · p 79

MODEL
model set

Easy

MODEL — · Q 3 · no marks printed · p 79

MODEL
model set

Easy

MODEL — · Q 4 · no marks printed · p 79

MODEL
model set

Easy

MODEL — · Q 6 · no marks printed · p 80

MODEL
model set

Easy

MODEL — · Q 7 · no marks printed · p 80

MODEL

Easy

	model set	
MODEL — · Q 8 · no marks printed · p 80	MODEL model set	Easy
MODEL — · Q 9 · no marks printed · p 80	MODEL model set	Easy
MODEL — · Q 10 · no marks printed · p 80	MODEL model set	Easy
MODEL — · Q 11 · no marks printed · p 81	MODEL model set	Easy
MODEL — · Q 12 · no marks printed · p 81	MODEL model set	Easy
MODEL — · Q 13 · no marks printed · p 81	MODEL model set	Easy