

# MICRO- COURSE GUIDE

This course guide is designed to provide schools and colleges with detailed information regarding this course which EzyEconomics has designed to provide full coverage of the economics knowledge requirements indicated by the Edexcel A-level Economics syllabus.

# SYLLABUS COVERAGE AND COURSE EFFICACY

The course material explains and assesses all of the learning requirements of the exam board syllabus.

This is also backed up by comprehensive feedback to questions (in screen text or video format), which further re-enforce the syllabus learning requirements.

As it would be very time consuming for schools to view all the videos and assessments included in the micro and macro course (this would take more than 80 hours) we have compiled this guide to provide an efficient basis for initially assessing the efficacy of this course.

The guide may also be used for reference purposes if schools wish to incorporate the service into their scheme of work or on a day-to-day basis throughout the course in order to help guide the setting of activities.

## **ASSESSING SYLLABUS KNOWLEDGE REQUIREMENTS**

If students are directed to complete all of the course assessments, teachers will have the comfort of knowing that syllabus knowledge requirements have been intensively interrogated. This will also identify where any syllabus gaps exist. This is a major difference relative to a traditional textbook.

The end of module assessments assess all explicit syllabus requirements and a range of additional requirements, which we have interpreted as an implied learning requirement of the syllabus. All other assessments assess learning obtained from video lectures. This means they provide an additional measure of syllabus requirements. The assessment style is less challenging as it is attempting to re-enforce learning from the videos and immediately correct any learning gaps.

Access is also provided to various items of extension material, which we feel support the learning required by the syllabus but which are not explicitly detailed in the syllabus

## **SKILLS DEVELOPMENT**

The nature of the service means that it cannot currently do anything more than showcase key examination skills. It does not replace the crucial interventions of teachers in guiding the development of the graph creation, extended essay writing skills and tackling data response questions.

## **CONTENT OF COURSE GUIDE**

For each unit and end of module assessment we have detailed the following information:

- 1. Learning objective of video lecture**
- 2. Economic terms covered**
- 3. The content covered by each video lecture**
- 4. Relevant details for each question – learning target, learning task and question style.**

Students have access to the EzyLexicon, which currently provides detailed definitions and supplementary information relating to over 800 terms. There is also access to the EzyEconomics video archive (a weekly video blog).

MODULE	DESCRIPTION	A LEVEL	AS NEW
	Introduction to Social Sciences	●	●
1.1	The Economic Problem	●	●
1.2	Statements and Judgements	●	●
1.3	PPF	●	●
1.4	Economic Systems	●	●
2.1	Demand Curves	●	●
2.2	Supply Curves	●	●
2.3	Demand and Supply Analysis	●	●
2.4	Applying Demand and Supply Theory	●	●
2.5	Interrelationships between Markets	●	●
2.6	Consumer and Producer Surplus	●	●
3.1	Price Elasticity of Demand	●	●
3.2	Price Elasticity of Supply	●	●
3.3	Income Elasticity of Demand	●	●
3.4	Cross Elasticity of Demand	●	●
3.5	Working with Elasticity Equations	●	●
4.1	Consumer Behaviour and Imperfect Information	●	●
4.2	Behavioural Economics	●	●
5.1	Production and Productivity	●	●
5.2	Specialisation and Exchange	●	●
5.3	Costs of Production	●	●
5.4	Economies and Diseconomies of Scale	●	●
5.5	Revenue and Profit	●	●
6.1	How Prices Allocate Resources	●	●
6.2	Market Structures and Objectives of Firms	●	●
6.3	Perfect Competition	●	●
6.4	Monopolistic Competition	●	●
6.5	Creative Destruction and Technological Change	●	●
6.6	Growth of Firms	●	●

# COURSE OUTLINE

MODULE	DESCRIPTION	A LEVEL	AS NEW
7.1	Monopoly	●	●
7.2	Monopsony	●	●
7.3	Oligopoly	●	●
7.4	Game Theory	●	●
7.5	Concentration Ratios	●	●
7.6	Price Discrimination	●	●
7.7	Contestability	●	●
7.8	Efficiency	●	●
8.1	The Labour Market	●	●
8.2	Labour Market Imperfections	●	●
8.3	Minimum Wages	●	●
9.1	Introduction to Market Failure	●	●
9.2	Public Goods and Tragedy on the Commons	●	●
9.3	Externalities	●	●
9.4	Immobility, Inequality and Imperfect Information	●	●
9.5	The Environment	●	●
	Introduction to Government Intervention	●	●
10.1	Taxation and Subsidies	●	●
10.2	Price Controls, Pollution Permits and Property Rights	●	●
10.3	State Provision, Competition Policy and Regulation	●	●
10.4	Government Failure	●	●
10.5	Cost-Benefit Analysis	●	●

- Required for Edexcel Examination Board
- Only some elements required for Edexcel Examination Board
- Available but NOT required for Edexcel Examination Board

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**MODULE 1**

The Economic Problem

**MODULE 2**

Demand and Supply

**MODULE 3**

Elasticity

**MODULE 4**

Individual Economic Decision Making

**MODULE 5**

Production, Costs and Revenue

Introduction to Social Sciences

**1.1** The Economic Problem**1.2** Statements and Judgements**1.3** Production Possibility Frontier**1.4** Economic Systems**Introduction to Social Sciences****Introduction to Social Sciences**

Candidates should understand the nature of economics as a subject and how thinking as an economist may differ from other forms of scientific enquiry.

**LEARNING OBJECTIVE****DEFINITIONS COVERED:**

Economics

Social science

Hypotheses

Assumptions

Models

Data

Law of demand

**CONTENT:**

- Identifying why economics is referred to as a social science
- Explanation that economics uses scientific tools of enquiry to study the behaviour of agents – individuals, firms and governments
- A breakdown of the types of questions that the study of economics helps to resolve i.e. how much do economic agents save
- An explanation of the terms used when studying economics – hypotheses, assumptions, models and data
- Distinction between the analytical elements of a study of science with a study of social sciences

**MODULE 1**

The Economic Problem

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Introduction to Social Sciences

1.1 The Economic Problem

1.2 Statements and Judgements

1.3 Production Possibility Frontier

1.4 Economic Systems

**Unit 1: The Economic Problem****The Economic Problem**

Candidates should understand some of the key concepts in economics including: the purpose of economic activity, factors of production, opportunity cost and objectives.

**LEARNING OBJECTIVE****DEFINITIONS COVERED:**

Needs  
Wants  
Opportunity cost  
Capital  
Entrepreneurship  
Labour  
Land  
Free goods  
Economic goods  
The economic problem  
Sustainability

**CONTENT:**

- Distinguish between needs and wants
- Defining and distinguishing free goods and economic goods
- Opportunity cost definition and example identification
- Factors of production – definition and rewards
- Resources, scarcity and the economic problem – definition and context
- Sustainability – definition and context
- Objectives, incentives and conflicts – match agents and their objectives and understand conflicts
- Government intervention and types of economic system – free market, mixed and planned economies

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Human needs	Distinguish from wants	Multichoice
2	Opportunity cost	Identify definition	Multichoice
3	Free good	Identify definition	Multichoice
4	Economic activity	Identify definition	Multichoice
5	Economic problem	Identify correct statement	Multichoice
6	Human needs	Identify correct statement	Multichoice
7	Free good	Identify type of good that meets definition	Multichoice
8	Opportunity cost	Identify correct OC - numeric	Multichoice
9	Factors of production	Identify definition	Multichoice
10	Economic problem	Identify definition	Multichoice
11	Economic sustainability	Identify definition	Multichoice
12	Economic systems	Identify incorrect statement	Multichoice
13	Factors of production	Match rewards to factors	Matchdropdown
14	Factors of production	Match activities to factors	Matchdropdown
15	Economic agents	Match objectives to economic agents	Matchdropdown

**Unit 2: Statements and Judgments****Statements and Judgments**

Candidates should understand the different forms statements and judgments can take and the implications they provide.

**LEARNING OBJECTIVE****DEFINITIONS COVERED:**

Positive Statement  
Normative Statement  
Value Judgments  
Objective Judgements

**CONTENT:**

- The spectrum of opinion
- Evaluating statements
- Defining and distinguishing between positive and normative statements
- The role of normative statements in economics
- The role of positive statements in economics
- Defining and distinguishing between value and objective judgements
- Evaluating and interpreting judgements
- Importance of value judgements in influencing policy decisions
- Role of moral and political judgements

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Normative statements	Distinguish from a positive statement	Multichoice
2	Normative statements	Distinguish from a positive statement	Multichoice
3	Positive statements	Distinguish from a normative statement	Multichoice
4	Positive statements	Distinguish from a normative statement	Multichoice
5	Normative statements	Distinguish from a positive statement	Multichoice
6	Positive statements	Distinguish from a normative statement	Multichoice
7	Normative statements	Distinguish from a positive statement	Multichoice
8	Value judgement	Assess whether statement is true or false	True/false
9	Value judgement	Assess whether statement is true or false	True/false
10	Value judgement	Assess whether statement is true or false	True/false



## Unit 3: Production Possibility Frontier

### PPF

Candidates should understand that only certain combinations of goods are feasible to produce given limited resources and be able to represent this as a production possibility frontier.

### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Production Possibility

Feasible combination of goods

Infeasible combination of goods

Productive efficiency

Opportunity Cost

Productive capacity

Productive inefficiency

Constant returns to scale

Factor mobility

Diminishing returns to scale

#### CONTENT:

- Economic impact of limited resources
- Illustration of feasible production points
- Illustration of infeasible production points
- Representation and interpretation of a PPF
- Point of productive efficiency
- Illustration of inefficient production points
- The importance of opportunity costs to economic agents - choices have an opportunity cost
- Evaluating shifts in the productive capacity of an economy
- Using the PPF to illustrate constant returns to scale
- Using the PPF to illustrate diminishing returns to scale

### PPF

#### Advanced Concepts

Candidates should understand how to apply their knowledge of production possibility diagrams to complex economic scenarios.

### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Production Possibility

Feasible combination of goods

Infeasible combination of goods

Productive efficiency

Opportunity costs

Productive capacity PPF

Productivity

Consumer goods

Capital goods

Investment

#### CONTENT:

- Evaluating and interpreting symmetrical shifts in the PPF
- Evaluating and interpreting asymmetrical shifts in the PPF
- Distinction between movements and shifts in production possibility curves, and the possible causes for such changes
- Distinction between capital and consumer goods
- Economic impact of changes in productivity
- Economic impact of investment on the PPF
- Economic impact of investment on the productive capacity
- Economic impact of investment on consumption
- How the PPF can be used to highlight resource allocation, opportunity cost and trade-offs, unemployment of economic resources and economic growth

**MODULE 1**

The Economic Problem

**MODULE 2**

Demand and Supply

**MODULE 3**

Elasticity

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**MODULE 5**

Production, Costs and Revenue

Introduction to Social Sciences

1.1 The Economic Problem

1.2 Statements and Judgements

1.3 Production Possibility Frontier

1.4 Economic Systems

**Unit 3: Production Possibility Frontier****Allocative Efficiency**

Reinforces candidate's understanding of the basic concepts surrounding PPFs and allow them to apply it to the situation of international trade.

**LEARNING OBJECTIVE****DEFINITIONS COVERED:**

Production possibility

Feasible combination of goods

Infeasible combination of goods

Allocative efficiency

Resource allocation

Productive efficiency

International trade

Closed economy

Open economy

**CONTENT:**

- Allocative efficient points on the PPF
- Allocative inefficient points on the PPF
- Explanation of why all points on the boundary are productively efficient but not all points on the boundary are allocatively efficient
- Resource utilisation in a closed economy
- Resource utilisation in an open economy
- Comparison of allocative and productive efficiency
- Evaluating the gains from trade for a country opening up to international trade

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Opportunity costs	Use data in table to identify correct answer	Multiplechoice
2	Productive efficiency	Identify correct point(s) on graph	Multiresponse
3	Productive inefficiency	Identify correct point(s) on graph	Multiresponse
4	Infeasible production points	Identify correct point(s) on graph	Multiresponse
5	Allocative efficiency	Assess whether statement is true or false	True/false
6	Feasible combination of goods	Identify the correct definition	Multiplechoice
7	Productive efficiency	Assess whether statement is true or false	True/false
8	Resource trade-off	Identify correct statement	Multiplechoice
9	PPF	Identify incorrect statement	Multiplechoice
10	Productive capacity	Identify correct statement	Multiplechoice
11	Factor immobility	Identify the most accurate statement	Multiplechoice
12	Opportunity costs	Use graph to identify correct statement	Multiplechoice
13	PPF shifts	Identify statement that matches the graph	Multiplechoice
14	PPF shifts	Identify statement that matches the graph	Multiplechoice
15	Production Possibility Diagram	Match PPF points to correct statements	Matchdropdown

**Unit 4: Economic Systems****Economic Systems**

Candidates should understand the distinction between free market, mixed and command economies and be able to evaluate their advantages and disadvantages.

**LEARNING OBJECTIVE****DEFINITIONS COVERED:**

The economic problem

Economic systems

Free market economy

Mixed economy

Command economy

Market economy

Government intervention

Friedrich Hayek

Karl Marx

**CONTENT:**

- Definition of an economic system
- Definition and description of a free market economy
- Definition and description of a command economy
- Definition and description of a mixed economy
- Role of government intervention in economic systems
- Breakdown of the UK's mixed economy
- Advantages and disadvantages of free market and command economies
- The role of the state in a mixed economy
- The distinction between free market, mixed and command economies, with reference to Friedrich Hayek and Karl Marx

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Economic systems	Match economic systems to definition	Matchdropdown
2	Free market economy	Match statements to correct statements	Matchdropdown
3	Mixed economy	Identify correct statement	Multiplechoice
4	Command economy	Identify correct statement	Multiplechoice
5	Market economy	Identify the most accurate statement	Multiplechoice
6	Government intervention	Match economy to government intervention	Matchdropdown
7	Free market economy	Assess whether statement is true or false	True/false
8	Command economy	Match sentences in chronological order	Matchdropdown
9	Free market economy	Identify correct statement(s)	Multiresponse
10	Free market economy	Identify correct statement	Multiplechoice

**LEARNING  
OBJECTIVE**

A 25 question assessment to help reinforce and develop students' understanding and knowledge of the basic concepts covered in Module 1 surrounding the economic problem.

**MODULE 1  
EMA****QUESTIONS  
COVER:**

- **UNIT 1:**  
The Economic Problem
- **UNIT 2:**  
Statements and Judgements
- **UNIT 3:**  
Production  
Possibility Frontiers
- **UNIT 4:**  
Economic  
Systems

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Human needs	Identify correct option(s)	Multiresponse
2	Market economy	Identify correct statement	Multichoice
3	Factors of production	Identify correct option(s)	Multiresponse
4	Free Good	Identify correct statement(s)	Multiresponse
5	Factors of production	Input the correct answer	Fillblank
6	Opportunity costs	Identify the most accurate statement	Multichoice
7	Economic problem	Identify correct statement	Multichoice
8	Allocative efficiency	Identify correct point on the graph	Multichoice
9	Mixed economy	Identify correct statement	Multichoice
10	Normative statements	Identify correct statement	Multichoice
11	Value judgements	Assess whether statement is true or false	True/false
12	Opportunity costs	Identify correct statement	Multichoice
13	Productive capacity	Assess whether statement is true or false	True/false
14	PPF shifts	Identify statement to match graph shift	Multiresponse
15	Productive inefficiency	Identify correct statement	Multichoice
16	Constant returns to scale	Identify correct statement	Multichoice
17	Productive capacity	Identify correct statement	Multiresponse
18	PPF	Identify correct statement	Multichoice
19	Factors of production	Match examples with correct factors of production	Matchdropdown
20	PPF	Match goods combination to correct point on PPF	Matchdropdown
21	PPF	Match points to correct point on PPF	Matchdropdown
22	PPF	Match points on graph to correct statement	Matchdropdown
23	Feasible production	Identify correct statement	Multichoice
24	Mixed economy	Identify correct statement	Multichoice
25	Economic systems	Identify correct statement	Multichoice

2.1	Demand Curves
2.2	Supply Curves
2.3	Demand and Supply Analysis
2.4	Applying Demand and Supply Theory
2.5	Interrelationships Between Markets
2.6	Consumer and Producer Surplus

## Unit 1: Demand Curves

### Deriving the Demand Curve

Candidates should understand what the law of demand is, why it implies that the demand curve is downward sloping and the reasons why there may be exceptions to the law of demand.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Demand  
Effective demand  
Utility  
Law of diminishing marginal utility  
Ceteris paribus  
The law of demand  
Veblen goods  
Speculative goods

#### CONTENT:

- Definition of demand
- Definition of effective demand
- Distinguishing between demand and effective demand
- Establishing the link between demand and utility
- Introducing the law of diminishing marginal utility for goods
- Explanation of the law of demand
- Graphical representation of the demand curve using the law of demand
- Defining and distinguishing between Veblen and Speculative goods
- Graphical representation of Veblen and Speculative goods

### Demand Curve Shifts

Candidates should understand how to diagrammatically describe demand curve shifts and their implications upon quantities demanded.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Demand curve  
Ceteris Paribus  
Inward shift  
Outward shift  
Price  
Quantity demanded

#### CONTENT:

- Reinforcing the inverse relationship between price and quantity demanded
- Explanation of factors that cause the demand curve to outwardly shift
- Explanation of factors that cause the demand curve to inwardly shift
- Graphical representation of an outward demand curve shift
- Graphical representation of an inward demand curve shift
- Distinction between movements and shifts for the demand curve

## Causes of Demand Curve Shifts

Candidates should be able to identify the possible causes of demand curve shifts and be able to establish the correct direction of a shift.

### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Demand curve

Ceteris Paribus

Substitute good

Complementary good

Purchasing power

Real income

Normal good

Inferior good

#### CONTENT:

- Explanation of the main factors that cause shifts in the demand curve
- Definition of a substitute good
- General equilibrium analysis of the impact of price changes for substitute goods
- Graphical representation of price changes in substitute goods
- Definition of a complementary good
- General equilibrium analysis of the impact of price changes for complementary goods
- Graphical representation of price changes in complementary goods
- Importance and impact of consumers purchasing power on the demand for all products
- Definition and distinction between normal and inferior goods
- Explanation of the relationship between real income and quantity demanded for both normal and inferior goods
- Graphical representation of the demand curves for both normal and inferior goods
- Graphical representation of shifts in the demand curves for both normal and inferior goods

## Individual and Market Demand Curves

Candidates should understand the distinction between individual demand and market demand.

### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Demand

Individual demand

Market demand

Demand curve

Market demand curve

#### CONTENT:

- Definition of individual demand
- Definition of market demand
- Numerical and graphical representation of how the individual demand curve is formed
- Numerical and graphical representation of how the market demand curve is formed

### ASSESSMENT

Question	Learning Target	Task	Style
1	Demand curve	Identify correct statement	Multiplechoice
2	Demand	Distinguish from effective demand	Multiplechoice
3	Law of demand	Assess whether statement is true or false	True/false
4	Demand curve	Identify the correct demand curve	Multiplechoice
5	Veblen good	Identify correct statement	Multiplechoice
6	Speculative good	Identify correct statement	Multiplechoice
7	Demand curve movement	Identify correct statement	Multiplechoice
8	Demand curve shifts	Identify correct statement	Multiplechoice
9	Demand	Identify correct statement	Multiplechoice
10	Goods	Match types of goods to descriptions	Matchdropdown
11	Demand curve shifts	Identify correct statement	Multiresponse
12	Inferior goods	Identify correct statement	Multiplechoice
13	Substitute goods	Identify correct statement	Multiplechoice
14	Marginal utility	Identify correct option(s)	Multiresponse
15	Demand	Use table to identify correct answer	Fillblank

2.1	Demand Curves
2.2	Supply Curves
2.3	Demand and Supply Analysis
2.4	Applying Demand and Supply Theory
2.5	Interrelationships Between Markets
2.6	Consumer and Producer Surplus

## Unit 2: Supply Curves

### Deriving the Supply Curve

Candidates should understand what the law of supply is, the reasoning behind it and why it implies that the supply curve is upwards sloping.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Supply  
Supply curve  
Production costs  
Direct relationship  
Price  
Quantity supplied  
Law of supply  
Profit incentive

#### CONTENT:

- Definition of supply
- Explanation of the law of supply
- Highlighting the direct positive relationship between price and quantity supplied
- Explanation of why this law holds
- Graphical representation of the supply curve using the law of supply
- Explanation of how profit incentives and production costs cause the price to rise with quantity supplied

### Supply Curve Shifts

Candidates should understand how to diagrammatically describe supply curve shifts and how to qualitatively interpret such shifts.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Supply curve  
Ceteris Paribus  
Inward shift  
Outward shift  
Price  
Quantity supplied

#### CONTENT:

- Reinforcing the direct positive relationship between price and quantity supplied
- Explanation of factors that cause the supply curve to outwardly shift
- Explanation of factors that cause the supply curve to inwardly shift
- Graphical representation of an outward supply curve shift
- Graphical representation of an inward supply curve shift
- Distinction between movements and shifts for the supply curve

## Causes of Supply Curve Shifts

Candidates should be able to identify the possible causes of supply curve shifts and be able to establish the correct direction of a shift.

### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Supply curve  
Ceteris Paribus  
Costs of production  
Indirect taxation  
Direct taxation  
Unit tax  
Ad valorem tax

#### CONTENT:

- Explanation of the main factors that cause shifts in the supply curve
- Definition of costs of production
- Graphical representation of how changes in costs of production (labour costs, fuel costs and borrowing costs) shift the supply curve
- Graphical representation of how changes in technology (machinery, fuel efficiency and efficiency of labour processes) shift the supply curve
- Graphical representation of how changes in exogenous factors (climate and labour efficiency) shift the supply curve
- Definition and explanation of the main forms of government intervention (taxation and subsidies)
- Definition and distinction between direct and indirect taxation
- List of the main forms of indirect taxation
- Graphical representation of how changes in indirect taxes (unit and ad valorem taxes) shift the supply curve
- Difference between parallel and rotational supply curve shifts

## Individual and Market Supply Curves

Candidates should understand the distinction between an individual firm's supply curve and the market supply curve.

### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Supply  
Supply curve  
Individual supply  
Market supply  
Market supply curve

#### CONTENT:

- Definition of individual supply
- Definition of market supply
- Numerical and graphical representation of how the individual supply curve is formed
- Numerical and graphical representation of how the market supply curve is formed

### ASSESSMENT

Question	Learning Target	Task	Style
1	Law of supply	Identify correct statement	Multiple choice
2	Supply curve	Identify correct option(s)	Multiple response
3	Supply curve	Use graph to identify correct answer	Multiple choice
4	Quantity supplied	Use graph to identify correct answer	Multiple choice
5	Supply curve shifts	Match curve shifts with causation factor	Match dropdown
6	Supply curve shifts	Use graph to identify correct answer	Multiple response
7	Supply curve shifts	Use graph to identify correct answer	Multiple choice
8	Outward shift	Identify correct option(s)	Multiple response
9	Supply curve shifts	Use graph to identify correct answer	Multiple choice
10	Quantity supplied	Identify correct statement	Multiple response
11	Supply curve	Assess whether the statement is true or false	True/false
12	Supply curve shifts	Identify correct statement	Multiple choice
13	Supply curve	Identify correct statement	Multiple choice
14	Law of supply	Identify correct option(s)	Multiple response
15	Market supply	Use numbers in question to identify correct answer	Fill blank

2.1	Demand Curves
2.2	Supply Curves
2.3	Demand and Supply Analysis
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## Unit 3: Demand and Supply Analysis

### Market Equilibrium

Candidates should understand how to construct and interpret demand and supply diagrams, what a market equilibrium is and how equilibria are reached.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Demand

Supply

Equilibrium

Market equilibrium

Market disequilibrium

Excess supply

Excess demand

Law of supply

Law of demand

#### CONTENT:

- Reinforcing the typical shape and structure of a demand and supply curve using the logic of the law of demand and law of supply
- Graphical representation of how market forces correct a disequilibrium in the market
- Definition of an equilibrium
- Definition of a market equilibrium
- Explanation that only one price and quantity prevails in each market equilibrium
- Introducing the idea of *ceteris paribus* in the context of a market equilibrium
- Definition of a market disequilibrium
- Definition of the two main types of market disequilibrium – Excess Demand and Excess Supply
- Graphical representation of how a market disequilibrium (excess demand and excess supply) originates in a market
- Graphical representation of how a market forces correct a disequilibrium in the market

### Analysing Demand and Supply Shifts

Candidates should understand how to interpret demand and supply shifts within the demand and supply diagrammatic framework.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Demand

Supply

Shift

Market equilibrium

Market disequilibrium

Excess supply

Excess demand

Law of supply

Law of demand

#### CONTENT:

- Reinforcing the typical shape and structure of a demand and supply curve using the logic of the law of demand and law of supply
- Graphical explanation of how a market equilibrium is reached by an intersection of demand and supply
- Explanation and graphical representation of the two types of curve shifts that occur – inwards and outwards shift
- Explanation that demand and supply curve shifts can happen at the same time
- Graphical explanation that curve shift will always lead to a new equilibrium
- Applying demand and supply curve shifts to the UK economy
- Series of crucial evaluation points made regarding assessing the impact of demand and supply curve shifts on the market



## Analysing Taxes and Subsidies

### LEARNING OBJECTIVE

Candidates should be able to analyse the effects and results of applying taxes and subsidies to markets.

#### DEFINITIONS COVERED:

Indirect tax

Unit tax

Inelastic demand

Elastic demand

Ad Valorem tax

Incidence of tax

Tax revenue

Parallel shift

Rotational shift

Subsidy

#### CONTENT:

- Explanation of how taxes and subsidies affect the supply curve
- Comparison of the economic impact of a tax and a subsidy imposed on a market
- Graphical explanation of the impact of a unit tax on the economy
- Definition of the incidence of tax
- Analysing the effect that the elasticity of curves has on the tax burden passed onto economic agents
- Definition and formula for total tax revenue
- Graphical representation of tax revenue accruing to the government after the imposition of a tax'
- Graphical explanation of the impact of a subsidy on the economy
- Analysing the effect that the elasticity of curves has on the subsidy benefits passed onto economic agents

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Equilibrium	Identify the correct option(s)	Multiresponse
2	Market equilibrium	Use the graph to identify the correct answer	Multichoice
3	Equilibrium/Disequilibrium	Match the terms with the correct definition	Matchdropdown
4	Excess supply	Identify the correct statement	Multichoice
5	Curve shifts	Use the graph to identify the correct answer	Multichoice
6	Demand curve shifts	Assess whether the statement is true or false	True/false
7	Supply curve shifts	Identify the correct statement	Multichoice
8	Curve shifts	Identify the correct point on the graph	Multichoice
9	Market equilibrium	Identify the correct statement	Multichoice
10	Tax burden	Use the graph to identify the correct answer	Multichoice
11	Unit tax	Identify the correct statement	Multichoice
12	Subsidy	Use the graph to identify the correct statement	Multichoice
13	Subsidy	Use the graph to identify the correct statement	Multichoice
14	Market disequilibrium	Match the price to the market situation	Matchdropdown
15	Unit tax	Match points on the graph to the correct descriptions	Matchdropdown

2.1	Demand Curves
2.2	Supply Curves
2.3	Demand and Supply Analysis
2.4	Applying Demand and Supply Theory
2.5	Interrelationships Between Markets
2.6	Consumer and Producer Surplus

## Unit 4: Applying Demand and Supply Theory

### Commodity and Agricultural Markets

Candidates should be able to apply their knowledge of supply and demand to agricultural and commodity markets.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Agriculture

Hard Commodities

Soft Commodities

Long-run

Short-run

Volatility

#### CONTENT:

- Definition of agriculture
- Definition and distinction between hard and soft commodities
- Definition and distinction between long-run and short-run
- Graphical explanation to show the markets for agriculture in both the short-run and long-run
- Example of the oil market and the demand and supply analysis to go with it
- Example of the rare metals market and the demand and supply analysis to go with it

### The UK Housing Market

Candidates should be able to apply their knowledge of supply and demand to the housing market.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Housing

Interest rate

Social housing

Mortgage

Credit crunch

Inelastic supply

Immobility

Herding behaviour

Speculation

#### CONTENT:

- Definition and distinction between long-run and short-run
- Summary of the issues surrounding the UK housing market
- Graphical representation of the UK housing market – showing demand curve shifts over time
- Definition of negative equity
- Graphical explanation of the impact of the credit crunch on the UK housing market
- Economic impact of speculation in the UK housing market
- Economic impact of government intervention into the UK housing market
- Evaluation point regarding the elasticity of the supply curves when evaluating the UK housing market

## Sport and Healthcare Markets

Candidates should be able to apply their knowledge of supply and demand to sport and healthcare markets.

### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Fixed supply  
Secondary markets  
Infinite demand  
Direct supply  
Short-run  
Long-run  
Free at the point of delivery  
Monopoly  
Asymmetrical information  
Adverse selection

#### CONTENT:

- Definition and distinction between long-run and short-run
- Graphically representing fixed supply in the sports market in terms of stadium capacity – straight vertical supply curve
- Implications of secondary markets in the sports market
- Definition of free at the point of delivery
- Definition of monopoly in terms of NHS
- Detailed graphical analysis of the UK healthcare market based on the theory of adverse selection

## Financial Markets

Candidates should be able to apply to concepts of demand and supply to various financial markets.

### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Demand  
Supply  
Market equilibrium  
Loans  
Bonds  
Equities  
Interest rate

#### CONTENT:

- Explanation that financial markets essentially operate in terms of demand and supply as all other markets
- Introducing and explaining the loanable funds market
- Highlighting the supply curve for this market is upward sloping and demand curve for loans is downward sloping
- Graphical explanation of excess demand and excess supply in this market
- Applied example of this market to the lending crisis created by the 2008 financial crisis
- Definition of bonds
- Logical chain of reasoning behind how a bond works
- Numerical example of the inverse relationship between bond yields and their market value
- Graphical explanation of excess demand and excess supply in the bond market
- Applied example to the Greek bond crisis
- Definition of equity
- Graphical explanation of the market for equity (shares)

### ASSESSMENT

Question	Learning Target	Task	Style
1	Long-run	Identify correct statement	Multichoice
2	Short-run	Use numbers in question to get correct answer	Multichoice
3	Agriculture market	Identify correct point on the graph	Multichoice
4	Agriculture market	Identify correct statement	Multichoice
5	Commodities market	Identify correct statement	Multichoice
6	Housing market	Identify correct statement	Multichoice
7	Housing market	Use graph to identify correct answer	Multichoice
8	Housing market	Identify correct point on the graph	Multichoice
9	Housing market	Identify correct statement	Multichoice
10	Sports market	Identify correct statement	Multichoice
11	Sports market	Use graph to identify correct answer	Multichoice
12	Healthcare market	Use graph to identify correct answer	Multichoice
13	Healthcare market	Assess whether the statement is true or false	True/false
14	Financial market	Use graph to identify correct answer	Multichoice
15	Bonds market	Use graph to identify correct answer	Multichoice

2.1	Demand Curves
2.2	Supply Curves
2.3	Demand and Supply Analysis
2.4	Applying Demand and Supply Theory
2.5	Interrelationships Between Markets
2.6	Consumer and Producer Surplus

**Unit 5: Interrelationships Between Markets**

**Interrelationships Between Markets**

Candidates should be able to describe how and why changes in a particular market can affect other markets.

**LEARNING OBJECTIVE**

**DEFINITIONS COVERED:**

- Joint demand
- Complementary good
- Competing demand
- Substitute good
- Composite demand
- Derived demand
- Joint supply

**CONTENT:**

- Definition and graphical depiction of joint demand
- Logical chain of reasoning behind the relationship of complementary goods
- Definition and graphical depiction of competing demand
- Logical chain of reasoning behind the relationship of substitute goods
- Defining and distinguishing between composite demand and derived demand
- Graphical representation of composite and derived demand
- Defining and distinguishing between joint supply and competing supply
- Graphical representation of joint and competing supply

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Competing demand	Identify correct statement	Multiplechoice
2	Competing demand	Identify correct demand curve	Multiplechoice
3	Competing demand	Identify correct statement	Multiplechoice
4	Joint supply	Identify correct statement	Multiplechoice
5	Joint demand	Identify correct option(s)	Multiresponse
6	Derived demand	Identify correct statement	Multiplechoice
7	Derived demand	Assess whether the statement is true or false	True/false
8	Joint supply	Use diagram to identify the correct answer	Multiplechoice
9	Derived demand	Identify the correct demand curve	Multiplechoice
10	Interrelationships	Match goods with their interrelationships	Matchdropdown

**Unit 6: Consumer and Producer Surplus**

**Consumer and Producer Surplus**

Candidates should understand the concepts of consumer and producer surplus and be able to identify areas which represent consumer and producer surplus on demand and supply diagrams.

**LEARNING OBJECTIVE**

**DEFINITIONS COVERED:**

- Consumer surplus
- Producer surplus
- Total welfare
- Demand curve
- Supply curve
- Utility
- PED
- PES

**CONTENT:**

- Definition of consumer surplus
- Definition of producer surplus
- Graphical explanation of consumer and producer surplus using the demand and supply curves
- Definition of total welfare
- Graphical representation of total welfare using a market equilibrium
- Illustration of how consumer and producer surplus is affected by demand and supply curve shifts
- The impact that the elasticity of demand and supply curves have on the level of total welfare in a market

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Consumer surplus	Use numbers to calculate the correct answer	Multiplechoice
2	Consumer surplus	Use numbers to calculate the correct answer	Multiplechoice
3	Consumer surplus	Use graph to calculate the correct answer	Multiplechoice
4	Surplus	Match graph with correct statement	Matchdropdown
5	Consumer surplus	Identify the correct graph	Multiplechoice
6	Producer Surplus	Identify correct option(s)	Multiresponse
7	Producer Surplus	Identify correct statement	Multiplechoice
8	Price discrimination	Identify correct statement	Multiplechoice
9	Welfare loss	Identify the correct graph	Multiplechoice
10	Consumer surplus	Use numbers to calculate the correct answer	Multiresponse

**LEARNING  
OBJECTIVE**

A 25 question assessment to help reinforce and develop students' understanding and knowledge of the basic concepts covered in Module 2 surrounding demand and supply.

**MODULE 2  
EMA****QUESTIONS  
COVER:**

- **UNIT 1:**  
Demand Curves
- **UNIT 2:**  
Supply Curves
- **UNIT 3:**  
Demand and  
Supply Analysis
- **UNIT 4:**  
Applying Demand  
and Supply Theory
- **UNIT 5:**  
Interrelationships  
between Markets
- **UNIT 6:**  
Consumer and  
Producer Surplus

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Effective demand	Identify correct statement	Multichoice
2	Veblen good	Identify correct demand curve	Multichoice
3	Demand curve shifts	Assess whether statement is true or false	True/false
4	Inferior good	Identify correct statement	Multichoice
5	Substitutes	Identify correct point on graph	Multichoice
6	Law of supply	Identify correct statement	Multichoice
7	Specific good	Identify correct statement	Multichoice
8	Market equilibrium	Use the graph to reach the correct answer	Multichoice
9	Ad valorem tax	Identify correct statement	Multichoice
10	Supply curve shifts	Identify correct statement	Multichoice
11	Excess demand	Identify correct statement	Multichoice
12	Demand curve shifts	Assess whether statement is true or false	True/false
13	Market equilibrium	Identify correct point on graph	Multichoice
14	Tax revenue	Identify correct statement	Multichoice
15	Agricultural market	Use the graph to reach the correct answer	Multichoice
16	Housing market	Assess whether statement is true or false	True/false
17	Housing market	Identify correct statement	Multichoice
18	Sports market	Use the graph to reach the correct answer	Multichoice
19	Complementary goods	Identify correct statement	Multichoice
20	Demand curve shifts	Identify correct statement	Multichoice
21	Demand curve shifts	Identify correct statement	Multichoice
22	Derived demand	Assess whether statement is true or false	True/false
23	Marginal utility	Assess whether statement is true or false	True/false
24	Market demand	Use the numbers to reach the correct answer	Multichoice
25	Loanable funds market	Use the graph to reach the correct answer	Multichoice

3.1	Price Elasticity of Demand
3.2	Price Elasticity of Supply
3.3	Income Elasticity of Demand
3.4	Cross Elasticity of Demand
3.5	Working with Elasticity Equations

## Unit 1: Price Elasticity of Demand

### Introduction to Elasticity

Candidates should understand the concept of elasticity and specifically how an elasticity measure can be used for analytical purposes.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

- Elasticity
- Responsiveness
- Proportion
- Price elasticity of demand
- Gradient of a curve
- Proportionate changes

#### CONTENT:

- Explanation that different demand curves have different responsiveness of quantity demanded to price
- Graphical representation of demand curves with different gradients.
- Defining what an elasticity measure is
- Definition of price elasticity of demand
- Numerical example of how to calculate responsiveness of quantity demanded to price
- Defining the general elasticity formula
- Defining the PED formula
- Numerical example of how to calculate proportionate changes

### Elastic or Inelastic

Candidates should be able to define the terms elastic and inelastic and apply them to specific elasticity values.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

- Elasticity
- Price elasticity of demand
- Elastic
- Unit elastic
- Inelastic

#### CONTENT:

- Defining the concept of elasticity and specifically how an elasticity measure can be used for analytical purposes
- Reinforcing the law of demand to apply to elasticity purposes
- Defining the PED formula
- Numerical example to illustrate that the PED equals the proportionate change in quantity demanded, if the denominator is equal to 1
- Numerical example to illustrate the idea of unit elasticity
- Numerical example to illustrate inelastic demand
- Numerical example to illustrate perfectly elastic demand
- Definition and distinction between elastic and inelastic demand
- Table to summarise the main elasticity values

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Proportionate change	Identify correct statement	Multichoice
2	PED	Identify correct definition	Multichoice
3	Elasticity measure	Identify correct definition	Multichoice
4	Proportionate change	Identify correct statement	Multichoice
5	Proportionate change	Identify correct statement	Multichoice
6	Price changes	Identify correct graph	Multichoice
7	Price changes	Identify correct graph	Multichoice
8	Proportionate change	Identify correct statement	Multichoice
9	Proportionate change	Identify correct statement	Multichoice
10	Proportionate change	Identify correct statement	Multichoice

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Proportionate changes	Use numbers to identify correct answer	Multichoice
2	Proportionate changes	Use numbers to identify correct answer	Multichoice
3	Proportionate changes	Use numbers to identify correct answer	Multichoice
4	Elastic demand	Identify correct option(s)	Multiresponse
5	PED	Use numbers to identify correct answer	Multichoice
6	PED	Identify correct option(s)	Multiresponse
7	Proportionate changes	Identify correct statement	Multichoice
8	Elasticity	Match terms to correct price and quantity combinations	Matchdropdown
9	Elasticity values	Match elasticity values to correct definition	Matchdropdown
10	Elasticity	Match elasticity term to correct definition	Matchdropdown

## Determinants of PED

### LEARNING OBJECTIVE

Candidates should understand the factors that affect the price elasticity of demand of a product.

#### DEFINITIONS COVERED:

Elasticity  
Price elasticity of demand  
Substitutability  
Necessity  
Luxury  
Time period  
Market definition

#### CONTENT:

- Numerical example to show how elasticity varies across different types of goods (necessary and luxury goods)
- Explanation of the main determinants of PED
- Example to show higher substitutability leads to a more elastic demand
- Example to show necessary goods leads to a more inelastic demand
- Example to show luxury goods leads to a more elastic demand
- Example to show the greater the proportion of a consumer's income that is devoted to a product, the more elastic the demand
- Example to show the stricter the definition of the product, the more elastic the demand
- Example to show for some products, demand is more price elastic in the long run than the short run

#### ASSESSMENT

Question	Learning Target	Task	Style
1	PED determinants	Identify correct determinant	Multichoice
2	Inelastic demand	Identify inelastic good(s)	Multiresponse
3	Market definition	Identify market with narrowest definition	Multichoice
4	Market definition	Identify market with broadest definition	Multichoice
5	Market definition	Identify market with narrowest definition	Multiresponse
6	Substitutability	Identify substitute good(s)	Multiresponse
7	PED determinants	Identify correct determinant(s)	Multiresponse
8	Market definition	Identify false statement	Multichoice
9	PED	Identify false statement	Multichoice
10	PED determinants	Match goods to their elasticity and determinant of elasticity	Matchdropdown

3.1	Price Elasticity of Demand
3.2	Price Elasticity of Supply
3.3	Income Elasticity of Demand
3.4	Cross Elasticity of Demand
3.5	Working with Elasticity Equations

## Unit 1: Price Elasticity of Demand

### PED within graphs

Candidates should be able to recognise the link between the price elasticity of demand of a good and the shape of its demand curve.

### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Elasticity  
Price elasticity of demand  
Demand curve  
Intersection  
Midpoint  
Expenditure  
Perfectly inelastic  
Perfectly elastic

#### CONTENT:

- Defining the concept of elasticity and specifically how an elasticity measure can be used for analytical purposes
- Defining the PED formula
- Definition and distinction between elastic and inelastic demand
- Definition of total expenditure
- Example to show how total expenditure is affected for different elasticity measures
- Graphical representation of how total expenditure changes in response to price changes for a good that has an inelastic demand curve
- Graphical representation of how total expenditure changes in response to price changes for a good that has an elastic demand curve
- Introducing the intuition that elasticity is not determined by the gradient of the curve but by the position of the curve
- Graphical representation of a linear demand curve – highlighting that elasticity varies across each line
- Graphical representation of a perfectly inelastic demand curve
- Graphical representation of a perfectly elastic demand curve

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Inelastic demand	Identify correct point on graph	Multiple choice
2	Inelastic demand	Identify correct statement	Multiple choice
3	Elastic demand	Using graph identify correct statement	Multiple choice
4	Elastic demand	Identify correct point on graph	Multiple choice
5	Unit elastic	Using graph identify correct statement	Multiple choice
6	Inelastic demand	Using graph identify correct statement	Multiple choice
7	Elastic demand	Using graph identify correct statement	Multiple choice
8	Elastic demand	Identify correct point on graph	Multiple choice
9	Elastic demand	Identify correct point on graph	Multiple choice
10	Inelastic demand	Identify correct point on graph	Multiple choice
11	Total expenditure	Using graph identify correct statement	Multiple choice
12	Total expenditure	Using graph identify correct statement	Multiple choice
13	Total expenditure	Using graph identify correct statement	Multiple choice
14	Elastic demand	Identify correct graph	Multiple choice
15	Inelastic demand	Identify correct graph	Multiple choice



## Unit 1: Price Elasticity of Demand

### Calculating Price Elasticity of Demand

Candidates should be able to calculate the value of an elasticity using a clear and concise step by step process.

**LEARNING OBJECTIVE**

#### DEFINITIONS COVERED:

Elasticity  
Price elasticity of demand  
Initial value  
Percentage change  
Proportionate change  
Elasticity values

#### CONTENT:

- Definition and formula for the price elasticity of demand
- Introducing a clear step by step process which can be applied across all elasticity values
- Two detailed numerical examples to apply the step by step process to calculate the price elasticity of demand

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Proportionate change	Using table calculate the correct answer	Multichoice
2	Unit elasticity	Using numbers identify the correct answer	Multichoice
3	PED	Using table calculate the correct answer	Multichoice
4	PED	Using table calculate the correct answer	Multichoice
5	PED	Using table calculate the correct answer	Multichoice
6	PED	Using table calculate the correct answer	Multichoice
7	PED	Using table calculate the correct answer	Multichoice
8	PED	Using table calculate the correct answer	Multichoice
9	Elasticity values	Match elasticity values to combinations of Qd and price	Matchdropdown
10	PED	Complete PED calculation process	Matchdropdown

## Unit 2: Price Elasticity of Supply

### Price Elasticity of Supply

Candidates should understand that the extent to which the quantity supplied is affected by changes in price is determined by the price elasticity of supply of a good.

**LEARNING OBJECTIVE**

#### DEFINITIONS COVERED:

Elasticity  
Price elasticity of supply  
Responsiveness  
Incentive  
Proportion

#### CONTENT:

- Explanation that different supply curves have different responsiveness of quantity supplied to price
- Graphical representation of supply curves with different gradients.
- Defining what an elasticity measure is
- Definition of price elasticity of supply
- Reinforcing the law of supply to determine the upward sloping supply curve
- Explanation and breakdown of the price elasticity of supply formula
- Detailed numerical examples to show how to calculate the price elasticity of supply
- Breakdown of the elasticity values for PES
- Explanation that the PES should theoretically always be positive

3.1	Price Elasticity of Demand
3.2	Price Elasticity of Supply
3.3	Income Elasticity of Demand
3.4	Cross Elasticity of Demand
3.5	Working with Elasticity Equations

## Unit 2: Price Elasticity of Supply

### Determinants of PES

Candidates should understand the factors that affect the price elasticity of supply of a product.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Elasticity  
Price elasticity of supply  
Factor substitutability  
Barriers to entry  
Spare capacity  
Production process

#### CONTENT:

- Explanation of the main determinants of PES
- Definition of spare capacity
- Numerical example to show the more spare capacity a firm has the more elastic the supply for that good
- Example to show the longer the production process, the smaller responses in supply to prices
- Definition of factor substitutability
- Example to show the greater the degree of factor substitutability, more elastic the supply of a good
- Definition of barriers to entry
- Example to show the greater the degree of barriers to entry, more elastic the supply of goods

### PES within graphs

Candidates should be able to recognise the link between the price elasticity of supply of a good and the shape of its supply curve.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Elasticity  
Price elasticity of supply  
Elastic supply  
Inelastic supply  
Unit elastic supply  
Perfectly elastic supply  
Perfectly inelastic supply  
Supply curve  
Intersection  
Linear supply  
Non-linear supply

#### CONTENT:

- Defining the concept of elasticity and specifically how an elasticity measure can be used for analytical purposes
- Defining the PES formula
- Definition and distinction between elastic and inelastic demand
- Table to summarise the main elasticity values
- Graphical representation of an elastic supply curve
- Graphical representation of an inelastic supply curve
- Graphical representation of a unit elastic supply curve
- Graphical representation of a perfectly inelastic supply curve
- Graphical representation of a perfectly elastic supply curve
- Graphical representation of a linear supply curve – highlighting that elasticity varies across each linear curve

### ASSESSMENT

Question	Learning Target	Task	Style
1	PES	Identify correct statement	Multiple choice
2	Inelastic supply	Identify correct statement	Multiple choice
3	Elastic supply	Identify correct statement	Multiple choice
4	Supply curves	Identify correct curve	Multiple choice
5	Elastic supply	Identify incorrect statement	Multiple choice
6	Elastic supply	Identify correct statement	Multiple choice
7	Supply curves	Identify correct curve	Multiple choice
8	PES	Complete statement	Multiple choice
9	Elasticity values	Match elasticity values to correct description	Match dropdown
10	PES	Match PES descriptions to correct graph description	Match dropdown

## Unit 2: Price Elasticity of Supply

### Calculating Price Elasticity of Supply

Candidates should be able to calculate the price elasticity of supply of a good given the appropriate data.



#### DEFINITIONS COVERED:

Elasticity

Price elasticity of supply

Initial value

Percentage change

Proportion

#### CONTENT:

- Definition and formula for the price elasticity of supply
- Introducing a clear step by step process which can be applied across all elasticity values
- Two detailed numerical examples to apply the step by step process to calculate the price elasticity of supply

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Unitary elastic	Using numbers calculate the correct answer	Multichoice
2	PES	Using the graph calculate the PES	Multichoice
3	PES	Using the supply curve calculate the PES	Multichoice
4	PES	Using the supply curve calculate the PES	Multichoice
5	PES	Using the supply curve calculate the PES	Multichoice
6	PES	Using the table of data calculate the PES	Multichoice
7	PES	Using the table of data calculate the PES	Multichoice
8	PES	Using the table of data calculate the PES	Multichoice
9	PES	Using numbers identify the correct statement	Multichoice
10	PES values	Match PES values to percentage changes in Qs	Matchdropdown

3.1	Price Elasticity of Demand
3.2	Price Elasticity of Supply
3.3	Income Elasticity of Demand
3.4	Cross Elasticity of Demand
3.5	Working with Elasticity Equations

## Unit 3: Income Elasticity of Demand

### Income Elasticity of Demand

Candidates should understand that the extent to which demand for a good is affected by changes in consumers' income is determined by its income elasticity of demand.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Elasticity  
Inferior good  
Luxury good  
Normal good  
Income  
Consumer  
Income elasticity of demand

#### CONTENT:

- Definition of income elasticity of demand
- Defining and breaking down the formula for the income elasticity of demand
- Explanation that the amount of purchasing power that consumers have will affect demand for all products
- Defining and distinguishing between normal and inferior goods
- Intuition behind the relationship between the quantity demanded of a normal good when income changes
- Graphical representation of a normal good's demand curve and the respective factors that cause it to shift
- Intuition behind the relationship between the quantity demanded of an inferior good when income changes
- Graphical representation of an inferior good's demand curve and the respective factors that cause it to shift
- Table to summarise the YED values that correspond to a normal and inferior good

### Calculating Income Elasticity of Demand

Candidates should be able to calculate the income elasticity of demand of a good given the appropriate data.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Elasticity  
Income elasticity of demand  
Income  
Inferior good  
Luxury good  
Normal good  
Initial value  
Percentage change  
Proportionate change

#### CONTENT:

- Definition and formula for the income elasticity of demand
- Introducing a clear step by step process which can be applied across all elasticity values
- Two detailed numerical examples to apply the step by step process to calculate the income elasticity of demand

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Inferior goods	Identify the correct graph	Multiple choice
2	Normal goods	Identify the correct graph(s)	Multiresponse
3	Inferior goods	Identify the correct good(s)	Multiresponse
4	YED equation	Identify the correct equation	Multiple choice
5	YED values	Identify the correct range of values	Multiple choice
6	Luxury good	Identify the correct good	Multiple choice
7	YED	Identify the correct answer	Multiple choice
8	Inferior goods	Identify the incorrect statement	Multiple choice
9	Inferior goods	Identify the correct good	Multiple choice
10	YED	Identify the correct definition	Multiple choice

#### ASSESSMENT

Question	Learning Target	Task	Style
1	YED calculation	Using the numbers calculate the correct answer	Multiple choice
2	YED calculation	Using the numbers calculate the correct answer	Multiple choice
3	YED calculation	Using the numbers calculate the correct answer	Multiple choice
4	YED calculation	Using the numbers calculate the correct answer	Multiple choice
5	YED calculation	Using the graph calculate the correct answer	Multiple choice
6	YED calculation	Using the graph calculate the correct answer	Multiple choice
7	YED calculation	Using the graph calculate the correct answer	Multiple choice
8	YED calculation	Using the graph calculate the correct answer	Multiple choice
9	YED calculation	Using the numbers calculate the correct answer	Multiple choice
10	YED calculation	Identify the correct answer	Multiple choice

## Unit 4: Cross Elasticity of Demand

### Cross Elasticity of Demand

Candidates should understand that XED describes what happens to the demand for a good if the price of another good changes.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Elasticity  
Substitute goods  
Complementary goods  
Independent goods  
Cross elasticity of demand

#### CONTENT:

- Definition of cross elasticity of demand
- Defining and breaking down the formula for the cross elasticity of demand
- Definition of a substitute good
- Logical chain of reasoning behind the demand impact on a good if a substitute good's price changes
- Graphical representation and explanation of outward and inward shifts of the demand curve for substitutes
- Definition of a complementary good
- Logical chain of reasoning behind the demand impact on a good if a complementary good's price changes
- Graphical representation and explanation of outward and inward shifts of the demand curve for complements
- Summary table of elasticity values that correspond with different types of goods (substitute, complementary and independent goods)

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Complementary goods	Identify the correct description for graph	Multiresponse
2	Substitute goods	Identify the correct description for graph	Multiresponse
3	Complementary goods	Identify the correct statement	Multichoice
4	XED definition	Complete the definition	Multichoice
5	Substitute goods	Identify the correct statement	Multichoice
6	Elasticity values	Identify the correct value(s)	Multiresponse
7	Negative XED	Identify the correct good(s)	Multiresponse
8	Independent goods	Identify the correct description for graph	Multiresponse
9	XED	Identify correct description	Multichoice
10	XED	Match the elasticity values to the correct descriptions	Matchdropdown

### Calculating Cross Elasticity of Demand

Candidates should be able to calculate the cross elasticity of demand of a good given the appropriate data.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Elasticity  
Cross elasticity of demand  
Initial value  
Proportionate change  
Percentage change

#### CONTENT:

- Definition and formula for the cross elasticity of demand
- Introducing a clear step by step process which can be applied across all elasticity values
- Two detailed numerical examples to apply the step by step process to calculate the cross elasticity of demand

#### ASSESSMENT

Question	Learning Target	Task	Style
1	XED	Using the numbers identify the correct answer	Multichoice
2	XED calculation	Using the numbers calculate the correct answer	Multichoice
3	XED calculation	Using the table calculate the correct answer	Multichoice
4	XED calculation	Using the table calculate the correct answer	Multichoice
5	XED calculation	Using the table calculate the correct answer	Multichoice
6	XED	Identify the correct statement	Multichoice
7	XED calculation	Using the graph calculate the correct answer	Multichoice
8	XED calculation	Using the graph calculate the correct answer	Multichoice
9	XED	Using the numbers identify the correct answer	Multichoice
10	Elasticity values	Match the elasticity values to the correct descriptions	Matchdropdown

3.1	Price Elasticity of Demand
3.2	Price Elasticity of Supply
3.3	Income Elasticity of Demand
3.4	Cross Elasticity of Demand
3.5	Working with Elasticity Equations

## Unit 5: Working with Elasticity Equations

### Re-working the Elasticity Formula

Candidates should be able to manipulate the four main elasticity formulas.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Elasticity

Proportionate change

Percentage change

Re-arranging

Formula

PED

PES

YED

XED

#### CONTENT:

- Defining and breaking down the PED formula
- Detailed worked example of rearranging the PED formula to calculate missing values
- Introduction to the elasticity triangle
- Defining and breaking down the PES formula in the context of the elasticity triangle
- Defining and breaking down the YED formula in the context of the elasticity triangle
- Defining and breaking down the XED formula in the context of the elasticity triangle

### Solving Elasticity Problems

Candidates should be able to apply re-arranged elasticity formulae to solve mathematical problems.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Elasticity

Proportionate change

Percentage change

Re-arranging

Formula

Subject of formula

PED

PES

YED

XED

#### CONTENT:

- Definition and formula for the four main elasticity measures (PED, PES, YED and XED)
- Reinforcing the theory of the elasticity triangle
- Detailed numerical example to use the elasticity triangle to solve a PED problem
- Detailed numerical example to use the elasticity triangle to solve a YED problem
- Detailed numerical example to use the elasticity triangle to solve a XED problem

### ASSESSMENT

Question	Learning Target	Task	Style
1	XED problem	Using the numbers calculate the correct answer	Multiple choice
2	PED problem	Using the numbers calculate the correct answer	Multiple choice
3	XED problem	Using the numbers calculate the correct answer	Multiple choice
4	YED problem	Using the numbers calculate the correct answer	Multiple choice
5	PES problem	Using the numbers calculate the correct answer	Multiple choice
6	PED problem	Using the numbers calculate the correct answer	Multiple choice
7	PED problem	Using the numbers calculate the correct answer	Multiple choice
8	YED problem	Using the numbers calculate the correct answer	Multiple choice
9	XED problem	Using the numbers calculate the correct answer	Multiple choice
10	PES problem	Using the numbers calculate the correct answer	Multiple choice

**LEARNING  
OBJECTIVE**

A 25 question assessment to help reinforce and develop students' understanding and knowledge of the basic concepts covered in Module 3 surrounding elasticity.

**MODULE 3  
EMA****QUESTIONS  
COVER:**

- **UNIT 1:**  
Price Elasticity  
of Demand

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- **UNIT 2:**  
Price Elasticity  
of Supply

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- **UNIT 3:**  
Income Elasticity  
of Demand

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- **UNIT 4:**  
Cross Elasticity  
of Demand

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- **UNIT 5:**  
Working with  
Elasticity Equations

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Total expenditure	Identify correct statement	Multichoice
2	PED values	Using the table identify the correct answer	Multichoice
3	Inelastic demand	Identify correct statement	Multichoice
4	PED calculation	Using numbers identify the correct answer	Multichoice
5	PED calculation	Using numbers identify the correct answer	Multichoice
6	PED calculation	Using numbers identify the correct answer	Multichoice
7	YED calculation	Using numbers identify the correct answer	Multichoice
8	YED calculation	Using numbers identify the correct answer	Multichoice
9	YED calculation	Using numbers identify the correct answer	Multichoice
10	XED calculation	Using numbers identify the correct answer	Multichoice
11	XED calculation	Using the table identify the correct answer	Multichoice
12	XED	Identify correct statement	Multichoice
13	PED determinant	Identify the correct PED determinant	Multichoice
14	PED	Identify the incorrect statement	Multichoice
15	YED	Identify correct statement	Multichoice
16	PES calculation	Using numbers identify the correct answer	Multichoice
17	PES calculation	Using numbers identify the correct answer	Multichoice
18	PES calculation	Using the table identify the correct answer	Multichoice
19	Elastic supply	Identify correct statement	Multichoice
20	Elastic supply	Identify incorrect statement	Multichoice
21	PES	Identify incorrect statement	Multiresponse
22	PES	Identify correct curve(s)	Multichoice
23	Elasticity values	Match each good with correct elasticity description	Multichoice
24	XED	Identify correct statement	Matchdropdown
25	YED	Match the YED values to the correct description	Matchdropdown

4.1 Consumer Behaviour and Imperfect Information

4.2 Behavioural Economics

## Unit 1: Consumer Behaviour and Imperfect Information

### Consumer Behaviour

Candidates should understand the model of rational decision making based upon marginal utility theory, utility maximisation and response to economic incentives.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Rational decision making

---

Economic incentives

---

Marginal utility

---

Utility theory

---

Utility maximisation

---

Law of diminishing marginal returns

---

Demand curve

---

Homo Economicus

#### CONTENT:

- Definition of utility
- Detailed numerical example of utility theory with reference to Daniel Bernoulli
- Logical chain of reasoning for utility theory
- Examples of rational decision making across all economic agents
- Explanation that consumers preferences are aimed at maximising utility
- Numerical example of utility maximisation
- Definition of the margin and applying this to marginal utility
- Numerical example of the concept of marginal utility for a good
- Defining and distinguishing between marginal utility and law of diminishing marginal utility
- Numerical proof of the law of diminishing marginal utility
- Graphical representation of this example on the law of diminishing marginal utility

### Imperfect Information

Candidates should understand the significance of information for economic decision making and how imperfect information can lead to market failure.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Perfect information

---

Imperfect information

---

Asymmetric information

---

Market failure

---

Market for lemons

---

Adverse selection

---

Moral hazard

#### CONTENT:

- Definition of perfect information
- Logical chain of reasoning of the economic benefits that perfect information grants economic agents
- Definition of imperfect information
- Logical chain of reasoning to how imperfect information can lead to market failure
- Definition of asymmetric information
- Worked example of asymmetrical information called 'the market for lemons', to illustrate the concept of adverse selection
- Logical chain of reasoning of how moral hazard can occur in a market (insurance, healthcare and financial)

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Marginal utility	Using the numbers calculate the correct answer	Multichoice
2	Law of diminishing marginal utility	Identify the correct statement	Multichoice
3	Incentives	Identify the correct option(s)	Multiresponse
4	Diminishing marginal utility	Using the tables identify the correct answer	Multichoice
5	Homo economicus	Identify the correct statement	Multichoice
6	Perfect information	Identify the correct option(s)	Multiresponse
7	Imperfect information	Complete the logical chain of reasoning	Matchdragdrop
8	Adverse selection	Identify the correct statement(s)	Multiresponse
9	Asymmetric information	Identify the correct statement(s)	Multiresponse
10	Adverse selection	Assess whether the statement is true or false	True/false



## Unit 2: Behavioural Economics

### Bounded Rationality and Cognitive Biases

Candidates should understand why decision making may be imperfect and how we characterise this in behavioural economic theories.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Bounded rationality  
Bounded self-control  
Cognitive biases  
Gamblers' fallacy  
Hot hand fallacy  
Anchoring  
Social norms  
Homo Economicus  
Altruism  
Imperfect information  
Rule of thumb  
Availability bias

#### CONTENT:

- Definition of behavioural economics
- Explanation of bounded rationality and its importance in human decision making
- Definition and worked example of bounded self-control
- Definition of cognitive biases
- Two worked through examples of cognitive biases – Gamblers' Fallacy and Hot Hand Fallacy
- Definition of rule of thumb
- Importance of the use of using a rule of thumb to simplify basic problems facing decision makers
- Description and worked through examples of the anchoring bias
- Description and worked through example of the availability bias
- Definition of a social norm
- Applied example of the UK government to illustrate how social norms can be established

### Altruism

Candidates should understand the importance of altruism and perceptions of fairness and how altruism may distort the rational economic agent assumption.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Altruism  
Perceptions of fairness  
The ultimatum game  
Homo Economicus

#### CONTENT:

- Reinforcing the idea of selfish Homo Economicus behaviour
- Definition of altruism
- Presenting an argument against selfish behaviour by introducing the idea of the perception of fairness
- Explanation that the perception of fairness may become a powerful principle which overrides other concerns
- Logical chain of reasoning to describe the ultimatum game in detail
- Applied example of the perception of fairness based on seats on a commuter train

- 4.1 Consumer Behaviour and Imperfect Information  
4.2 Behavioural Economics

## Unit 2: Behavioural Economics

### Using Behavioural Economics to Inform Policy

Candidates should understand how economists use behavioural economic theories to improve economic policy.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Choice architecture  
Framing  
Nudges  
Default choices  
Restricted choices  
Mandated choices  
Libertarian paternalism

#### CONTENT:

- Introducing the concept of libertarian paternalism
- Introducing the theory of nudges and nudge theory
- Applied example of nudge theory to the UK Nudge Unit set up in 2010
- Introducing the concept of framing and how it significantly impacts economic decision making
- Describing the field of choice architecture (default, mandated and restricted choice)
- Applied example of default choice to the organ donation market in Spain
- Applied example of default choice to the workplace pensions market in the UK
- Applied example of restricted choice to the pensions market in the UK
- Applied example of mandated choice to the organ donation market in Sweden

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Bounded rationality	Identify the correct definition	Multichoice
2	Bounded self-control	Identify the correct answer	Multichoice
3	Rule of thumb	Identify the correct answer	Multichoice
4	Anchoring	Identify the correct answer	Multichoice
5	Availability bias	Identify the correct answer	Multichoice
6	Altruism	Assess whether statement is true or false	True/false
7	The ultimatum game	Complete the logical chain of reasoning	Matchdropdown
8	Libertarian paternalism	Assess whether statement is true or false	True/false
9	Framing	Assess which option is correct	Multichoice
10	Choice architecture	Match the form of choice architecture to the definition	Matchdropdown
11	Default choice	Identify the correct answer	Multichoice
12	Choice architecture	Complete the logical chain of reasoning	Matchdropdown
13	Mandated choice	Identify the correct answer	Multichoice
14	Choice architecture	Identify the correct answer	Multichoice
15	Behavioural economics	Match the terms to the correct definition	Matchdropdown

**LEARNING  
OBJECTIVE**

A 25 question assessment to help reinforce and develop students' understanding and knowledge of the basic concepts covered in Module 4 surrounding individual economic decision making.

**MODULE 4  
EMA****QUESTIONS  
COVER:**

- **UNIT 1:**  
Consumer Behaviour and Imperfect Information
- **UNIT 2:**  
Behavioural Economics

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Nudges	Assess whether statement is true or false	True/false
2	Utility theory	Complete the definition	Multichoice
3	Diminishing marginal utility	Identify the correct statement	Multichoice
4	Utility maximisation	Identify the correct statement	Multichoice
5	Homo economicus	Asses whether statement is true or false	True/false
6	Utility theory	Identify the correct statement	Multichoice
7	Asymmetrical information	Identify the correct statement	Multichoice
8	Moral hazard	Identify the incorrect statement	Multichoice
9	Asymmetrical information	Assess whether statement is true or false	True/false
10	Adverse selection	Identify the correct statement	Multichoice
11	Adverse selection	Identify the correct statement	Multichoice
12	Moral hazard	Identify the correct statement	Multichoice
13	Moral hazard	Complete the logical chain of reasoning	Matchdropdown
14	Cognitive biases	Identify the correct answer	Multiresponse
15	Bounded rationality	Assess whether statement is true or false	True/false
16	Cognitive biases	Identify the correct answer	Multichoice
17	Gamblers' fallacy	Identify the correct answer	Multichoice
18	Availability bias	Identify the correct answer	Multichoice
19	Altruism	Assess whether statement is true or false	True/false
20	Altruism	Identify the correct answer	Multichoice
21	Consumer theory	Identify the correct answer	Multichoice
22	Framing	Using the data reach the correct answer	Multichoice
23	Choice architecture	Assess whether statement is true or false	True/false
24	Libertarian paternalism	Identify the correct answer	Multichoice
25	Behavioural economics	Identify the correct answer	Multichoice

5.1	Production and Productivity
5.2	Specialisation and Exchange
5.3	Costs of Production
5.4	Economies and Diseconomies of Scale
5.5	Revenue and Profit

## Unit 1: Production, Costs and Revenue

### Production

Candidates should understand the definition of production, why production is necessary to maximise welfare and that there are different forms of inputs called factors of production.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Production
Goods
Services
Factors of production
Economic welfare
Inputs
Outputs
The economic problem
Capital
Entrepreneurship
Labour
Land
PPF

#### CONTENT:

- Graphical illustration of the general production process of converting inputs into output
- Definition of the economic problem to emphasise the point of scarcity during the production process
- Summary table of the factors of production (labour, land, entrepreneurship and capital) used in production processes in the economy
- Examples of all the factors of production and how they can be applied to the production process
- Graphical representation of the production possibilities of the economy using the PPF

### Productivity

Candidates should be able to define productivity, understand what factors can affect productivity and be able to demonstrate the effects of changes in productivity on PPF diagrams.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Production
Productivity
Labour productivity
Land productivity
Capital productivity
Enterprise productivity
Production possibility frontier
Factors of production
Inputs
Output

#### CONTENT:

- Reinforcing the general structure of the production process. With reference to the conversion of inputs into output
- Definition of productivity
- Numerical example of the production process to introduce the concept of productivity
- Definition of the factors of production (labour, land, entrepreneurship and capital)
- Definition of productivity of the factors of production (labour productivity, land productivity, enterprise productivity and capital productivity)
- Identifying that the productivity of labour does not just depend on the quality of labour
- Identifying some of the policies that can improve labour productivity
- Highlighting the economic benefits to society of increasing productivity
- Graphical representation of an increase in the economy's productivity level (symmetrical shift)
- Graphical representation of an increase in one form of productivity (asymmetrical shift)

## Productive Efficiency

### LEARNING OBJECTIVE

Candidates should be able to define productive efficiency and identify productively efficient points on both production possibility diagrams and average cost curve diagrams.

#### DEFINITIONS COVERED:

Production

Productive efficiency (firm and economy)

Average costs

Total costs

Output

Production possibility frontier

Economies of scale

Diseconomies of scale

Spare capacity

#### CONTENT:

- Defining and distinguishing between productive efficiency for a firm and an economy
- Explanation that all productively efficient points lie on the PPF
- Graphical representation of the PPF
- Introducing the concept of spare capacity in terms of the PPF
- Definition and formula for calculating the average costs for a firm
- Graphical representation of the average costs curve with reference to economies and diseconomies of scale
- Explaining the intuition behind the U-shaped average costs curve
- Identifying that the minimum point on the average costs curve is the point of productive efficiency for a firm

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Productive efficiency	Identify the correct graph	Multiplechoice
2	PPF	Using the graph identify the correct answer	Multiresponse
3	Capital productivity	Using the table identify the correct answer	Multiplechoice
4	Productivity	Identify the correct definition for productivity	Multiplechoice
5	Productivity	Assess whether the statement is true or false	True/false
6	Productive efficiency	Identify the incorrect statement	Multiplechoice
7	Capital productivity	Identify the correct statement	Multiplechoice
8	Productive efficiency	Using the table calculate the correct answer	Multiplechoice
9	Efficiency	Match efficiency descriptions with correct graph	Matchdropdown
10	Factors of production	Match the resources to the correct factor of production	Matchdropdown

5.1	Production and Productivity
5.2	Specialisation and Exchange
5.3	Costs of Production
5.4	Economies and Diseconomies of Scale
5.5	Revenue and Profit

**Unit 2: Specialisation, Division of Labour, Exchange**

**Specialisation and the Division of Labour**

**LEARNING OBJECTIVE**

Candidates should understand how specialisation improves productivity.

**Exchange and the Functions of Money**

**LEARNING OBJECTIVE**

Candidates should understand how specialisation requires an efficient means of exchange and how money has developed to perform that function.

**DEFINITIONS COVERED:**

- Specialisation
- Adam Smith
- Division of labour
- Capital widening
- Motivation

**CONTENT:**

- Definition of specialisation
- Applied example of specialisation to workers in a village to emphasise productivity gains
- How specialisation encourages economic growth
- Introducing the concept of Adam Smith’s pin factory and the economic importance of this
- Definition of division of labour
- Explanation of the reasons why division of labour leads to increases in productivity
- Explanation of the possible problems that division of labour can lead to in the work place – offsetting productivity gains.

**DEFINITIONS COVERED:**

- Specialisation
- Money
- Barter economy
- Exchange
- Barter
- Double coincidence of wants
- Medium of exchange
- Unit of account
- Store of value

**CONTENT:**

- Reinforcing the economy benefits of specialism for firms and an economy
- Highlighting that specialism requires an efficient exchange system to be successfully integrated into the economy
- Definition and explanation of the trading process known as barter
- Definition of the double coincidence of wants
- The importance of the double coincidence of wants to a trading system like barter
- Defining exchange and money
- Introducing the link between money and specialisation
- Defining the main functions of money (medium of exchange, unit of account and store of value)

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Division of labour	Assess whether the statement is true or false	True/false
2	Specialisation	Assess whether the statement is true or false	True/false
3	Adam Smith	Identify the correct answer	Multichoice
4	Specialisation	Identify the correct answer	Multichoice
5	Productivity	Identify the correct answer	Multichoice
6	Barter	Identify the correct answer	Multichoice
7	PPF shifts	Identify the correct shift	Multichoice
8	PPF shifts	Identify the correct answer	Multichoice
9	Specialisation/ Division of labour	Match the terms to the correct definitions	Matchdropdown
10	Specialisation/ Division of labour	Match the terms to the correct definitions	Matchdropdown

## Unit 3: Costs of Production

### Fixed, Variable and Total Costs

### LEARNING OBJECTIVE

Candidates should understand how economists use the term 'costs' and know the difference between fixed and variable costs. They should be able to calculate total costs.

#### DEFINITIONS COVERED:

Economic costs

Depreciation

Fixed costs

Variable costs

Total costs (TC)

Total fixed costs (TFC)

Total variable costs (TVC)

#### CONTENT:

- Definition of economic costs of production
- Examples of different types of economic costs
- Explaining the economic costs of production resulting from the main factors of production (labour, capital, land and entrepreneurship)
- Defining and distinguishing between fixed and variable costs
- Applied example of fixed costs to an individual firm
- Applied example of variable costs to an individual firm
- Defining and distinguishing between total fixed costs and total variable costs
- Numerical example of how to calculate the total fixed costs for a firm
- Numerical example of how to calculate the total variable costs for a firm
- Graphical representation of a firm's TFC curve
- Graphical representation of a firm's TVC curve
- Definition of a firm's total costs of production
- Formula for a firm's total costs of production
- Graphical representation of a firm's TC curve

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Economic profit	Using the numbers calculate the correct answer	Multiplechoice
2	Variable costs	Assess whether the statement is true or false	True/false
3	Fixed costs	Identify which is not a fixed cost	Multiplechoice
4	Total costs	Using the table calculate the correct answer	Multiplechoice
5	Fixed costs	Using the table calculate the correct answer	Multiplechoice
6	Variable costs	Using the numbers calculate the correct answer	Fillblank
7	TFC curve	Fill in blanks to complete the statement	Multiplechoice
8	TVC curve	Using the graph calculate the correct answer	Multiplechoice
9	Fixed costs	Identify the correct statement	Multiresponse
10	Total costs	Match descriptions to the correct cost value	Matchdropdown

5.1	Production and Productivity
5.2	Specialisation and Exchange
5.3	Costs of Production
5.4	Economies and Diseconomies of Scale
5.5	Revenue and Profit

## Unit 3: Costs of Production

### Marginal and Average Costs

Candidates should understand the meaning of marginal and average costs and be able to depict marginal and average cost curves. They should be able to calculate average costs.

### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Marginal costs (MC)

Average costs (AC)

Average fixed costs (AFC)

Average variable costs (AVC)

#### CONTENT:

- Definition of the marginal cost of production
- Numerical example to show how a firm's marginal costs can be calculated from their total costs
- Graphical representation of a firm's marginal cost curve
- Explanation of the typical 'tick' shape of a firm's marginal cost curve
- Definition of the average cost of production
- Formula for the average cost of production
- Numerical example to show how the average costs of production can be calculated
- Graphical representation of a firm's average cost curve
- Illustrating and explaining the relationship between the shape of the MC curve and AC curve.
- Highlighting that the MC curve intersects the AC curve at its minimum
- Definition of the average fixed costs of production
- Numerical example to show how the average fixed costs of production can be calculated
- Graphical representation of a firm's average fixed costs curve
- Definition of the average variable costs of production
- Numerical example to show how the average variable costs of production can be calculated
- Graphical representation of a firm's average variable costs curve
- Illustrating and explaining the relationship between all the firms average cost curves



## Short-Run Costs

Candidates should understand the difference between the short-run and the long-run and the implications of the short-run upon costs.



### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Short-run costs

Long-run costs

AC curve

MC curve

Law of diminishing marginal returns

Marginal product

#### CONTENT:

- Defining and distinguishing between the short-run and long-run time horizons
- Examples of the factors of production which are used in the short-run and long-run
- Logical chain of reasoning behind changing the production process in the short-run
- Definition of the law of diminishing marginal returns
- Numerical example of the law of diminishing marginal returns for a specific firm
- Graphically representing the law of diminishing marginal returns for a specific firm via a 'tick' shaped MC curve
- Reinforcing the relationship between the AC and MC curves

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Marginal and average costs	Identify the statements that are true	Multichoice
2	Marginal costs	Using the table calculate the correct answer	Fillblank
3	Average costs	Using the table calculate the correct answer	Fillblank
4	Average fixed costs	Using the table calculate the correct answer	Fillblank
5	Average variable costs	Using the table calculate the correct answer	Fillblank
6	Cost curves	Using the table calculate the correct answer	Multichoice
7	Marginal costs	Fill in the blanks by inputting the correct term	Matchdropdown
8	Average costs	Identify the correct statement	Multichoice
9	Average cost curves	Assess whether the statement is true or false	True/false
10	Cost curves	Identify the correct statement	Multichoice
11	Short-run	Identify the correct statement	Multichoice
12	Law of diminishing marginal returns	Complete the logical chain of reasoning for SR production	Matchdropdown
13	Cost curves	Fill in the blanks by inputting the correct term	Matchdropdown
14	Cost curves	Identify the correct diagram	Multichoice
15	Law of diminishing marginal returns	Using the table calculate the correct answer	Multichoice

5.1	Production and Productivity
5.2	Specialisation and Exchange
5.3	Costs of Production
5.4	Economies and Diseconomies of Scale
5.5	Revenue and Profit

## Unit 4: Economies and Diseconomies of Scale

### Long-run Costs

Candidates should understand that in the long-run, all factors of production are flexible and the concept of returns to scale.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Short-run

Long-run

Returns to scale

Constant returns to scale

Increasing returns to scale

Decreasing returns to scale

#### CONTENT:

- Defining and distinguishing between the short-run and long-run time horizons
- Logical chain of reasoning behind changing the production process in the long-run
- Definition of returns to scale
- Numerical example of constant returns to scale for a firm
- Numerical example of increasing returns to scale for a firm
- Numerical example of decreasing returns to scale for a firm

### Economies of Scale

Candidates should be able to categorise and give examples of economies of scale, understand their implications upon average costs and why they may encourage the development of monopolies.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Economies of scale

Average costs

Monopoly

External economies of scale

LRAC curve

AC curve

#### CONTENT:

- Definition and explanation of economies of scale
- Graphical representation of economies of scale – moving down the LRAC curve
- Defining and categorising the economies of scale that a firm can achieve – Managerial economies, Purchasing economies, Technical economies, Risk-bearing economies, Financial economies and Marketing economies
- Definition and explanation of external economies of scale
- Effects of economies of scale on market structure
- Definition of a monopoly
- Effects of economies of scale on the prevalence of monopolies in markets

## Diseconomies of Scale

Candidates should be able to categorise and give examples of diseconomies of scale, understand their implications upon average costs and their effects upon the structure of a market

### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Diseconomies of scale

Average costs

LRAC curve

AC curve

Managerial diseconomies

#### CONTENT:

- Definition and explanation of diseconomies of scale
- Graphical representation of diseconomies of scale – moving up the LRAC curve
- Defining and categorising diseconomies of scale
- Effects of diseconomies of scale on market structure

### ASSESSMENT

Question	Learning Target	Task	Style
1	Productive efficiency	Assess whether the statement is true or false	True/false
2	Economies of scale	Identify the correct economies	Multichoice
3	Economies of scale	Identify the correct economies	Multichoice
4	Economies of scale	Identify the correct economies	Multichoice
5	External economies of scale	Identify the correct economies	Multiresponse
6	Diseconomies of scale	Identify the correct answer	Multichoice
7	Diseconomies of scale	Identify the correct answer	Multichoice
8	Economies of scale	Identify the true statement(s)	Multiresponse
9	Returns to scale	Match the terms with the correct definitions	Matchdropdown
10	Economies of scale	Match the EoS with their correct descriptions	Matchdropdown
11	LRAC curve	Identify the correct statement	Multichoice
12	LRAC	Assess whether the statement is true or false	True/false
13	Increasing returns to scale	Identify the correct answer	Multichoice
14	LRAC curve	Using the diagram fill in the banks to complete the statement	Multichoice
15	LRAC curve	Complete the logical chain of reasoning for the LRAC curve	Matchdropdown

## LRAC Curves

Candidates should be able to explain the shapes of LRAC curves and what they imply about the structure of a given market.

### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Economies of scale

Diseconomies of scale

Average costs

LRAC curve

AC curve

Minimum efficient scale

Natural monopoly

#### CONTENT:

- Defining and distinguishing between economies and diseconomies of scale
- Graphical representation of economies of scale – moving down the LRAC curve
- Graphical representation of diseconomies of scale – moving up the LRAC curve
- Deriving LRAC curves
- Analysing the shape of LRAC curves – productive efficient point
- Identifying that LRAC curves have different shapes – some industries have no economies of scale at high levels of output
- Introducing the concept of the minimum efficient scale
- Graphical representation of the minimum efficient scale
- Linking the concept of the minimum efficient scale to the formation of a natural monopoly

5.1	Production and Productivity
5.2	Specialisation and Exchange
5.3	Costs of Production
5.4	Economies and Diseconomies of Scale
5.5	Revenue and Profit

**Unit 5: Revenue and Profit**

**Marginal, Average and Total Revenue**

Candidates should be able to calculate AR, MR and TR, understand why the AR curve is a firm's demand curve and the relationship between PED and revenue.

**LEARNING OBJECTIVE**

**DEFINITIONS COVERED:**

- Revenue
- Marginal revenue (MR)
- Average revenue (AR)
- Total revenue (TR)
- Price elasticity of demand
- Elastic demand
- Inelastic demand

**CONTENT:**

- Definition of revenue
- Breakdown of the three main forms of revenue – total revenue, marginal revenue and average revenue
- Detailed numerical example to show how to calculate total, marginal and average revenue
- Graphical representation of the total, marginal and average revenue curves
- Numerical example to show why the firm's demand curve is equal to the AR curve
- Analysis of the shape and structure of the total, average and marginal revenue curves
- Definition of PED
- Defining and breaking down the formula for PED
- Evaluating the impact of elasticity on the shape of the total revenue curves – elastic demand causes TR to increase when output increases and inelastic demand causes TR to decrease when output increases

**Profit**

Candidates should understand the meaning of economic profit, be able to describe profit diagrammatically and explain how profit is maximised.

**LEARNING OBJECTIVE**

**DEFINITIONS COVERED:**

- Economic profit
- Accounting profit
- Profit maximisation
- Normal profit
- Supernormal profit
- Economic loss

**CONTENT:**

- Definition and distinction between accounting profit and economic profit
- Detailed numerical example of how to calculate the profit and loss of an individual firm for different output levels
- Graphical representation of the profit/loss curve which is derived from the total revenue and total cost curve
- Analysing the link between the shape of the TR and TC curve and the profit/loss curve
- Definition of normal profit
- Graphically defining normal profit - Normal profit occurs where TR = TC
- Graphically representing the profit maximisation point – the point where the gap between TR and TC curve is at its biggest

- Detailed numerical example to show profit maximisation occurs when  $MR = MC$
- Explanation of the intuition behind profit maximising condition ( $MR=MC$ )
- Graphically representing the profit maximisation point using MR and MC curves
- Defining and distinguishing between normal profit, supernormal profit and loss
- Graphically representing how a firm can achieve normal profits
- Graphically representing how a firm can achieve supernormal profits
- Graphically representing how supernormal profit can be calculated – separately calculating sales revenue and costs
- Graphically representing how a firm earns an economic loss

## Calculating Profit

### LEARNING OBJECTIVE

Candidates should be able to calculate simple economic profit.

#### DEFINITIONS COVERED:

Economic profit  
Accounting profit  
Revenue  
Costs  
Fixed costs  
Variable costs  
Opportunity costs

#### CONTENT:

- Definition and distinction between accounting profit and economic profit
- Two detailed numerical examples of how to calculate the level of economic profit accruing to a firm given their total costs and revenue
- Explanation of how to indirectly calculate the level of economic profit if a value such as total revenue or total costs is not given to the candidate

5.1	Production and Productivity
5.2	Specialisation and Exchange
5.3	Costs of Production
5.4	Economies and Diseconomies of Scale
5.5	Revenue and Profit

## Unit 5: Revenue and Profit

### Shut-down Points

### LEARNING OBJECTIVE

Candidates should understand the situations in which a rational business will shut down operations and how this differs in the short and long run.

#### DEFINITIONS COVERED:

Shut-down point

Short-run

Long-run

Average variable costs

Fixed costs

Average revenue

MC = MR

Normal profit

P=MC

#### CONTENT:

- Graphically defining the importance of the AVC curve in establishing a shut-down point for a firm
- Reinforcing the point at which profit maximization occurs (MR=MC)
- Reinforcing the point at which normal profit is made (P=MC)
- Definition of normal profit
- Definition of the shut-down point
- Establishing the link between normal profit and the shut-down point for a firm
- Graphically representing that firms will always shut down if average revenues are exceeded by average costs
- Analysing the shut-down decision in both the short-run and long-run
- Graphically representing the shut-down point in the short-run as the point where AR=AVC

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Total revenue	Using the numbers calculate the correct answer	Multichoice
2	Average revenue	Using the numbers calculate the correct answer	Fillblank
3	Marginal revenue	Using the numbers calculate the correct answer	Multichoice
4	TR curve	Using the graph, match the correct values to the statement	Matchdropdown
5	PED	Identify the correct statement	Multichoice
6	PED	Identify the correct statement	Multichoice
7	Economic profit	Using the numbers calculate the correct answer	Multichoice
8	Economic profit	Using the numbers calculate the correct answer	Multichoice
9	Marginal cost	Identify the correct statement	Multichoice
10	Profit maximisation	Fill in the blanks	Multichoice
11	Economic profit	Using the graph identify the correct answer	Multichoice
12	Profit maximisation	Match the graphs to the correct statements	Matchdropdown
13	Profit maximisation	Fill in the blanks	Matchdropdown
14	Short-run	Identify the correct statement	Multichoice
15	Profit maximisation	Identify the correct statement	Multichoice

**LEARNING  
OBJECTIVE**

A 25 question assessment to help reinforce and develop students' understanding and knowledge of the basic concepts covered in Module 5 surrounding production, costs and revenue.

**MODULE 5  
EMA****QUESTIONS  
COVER:**

- **UNIT 1:**  
Production and Productivity
- **UNIT 2:**  
Specialisation and Exchange
- **UNIT 3:**  
Costs of Production
- **UNIT 4:**  
Economies and Diseconomies of Scale
- **UNIT 5:**  
Revenue and Profit

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Production	Match the terms to the correct definition	Matchdropdown
2	Production	Match the terms to the correct definition	Matchdropdown
3	Economies of scale	Identify the correct graph	Multichoice
4	Productive efficiency	Identify the correct graph	Multichoice
5	John Maynard Keynes	Identify the incorrect statement	Multichoice
6	Exchange/Money	Identify the incorrect statement	Multichoice
7	Technical economies	Identify the correct statement	Multichoice
8	External EoS	Identify the correct statement	Multichoice
9	Minimum efficient scale	Using the table identify the correct market	Multiresponse
10	Economies of scale	Using the table identify the correct answer	Multichoice
11	Minimum efficient scale	Identify the correct graph	Multichoice
12	Productive efficiency	Identify the correct graph	Multichoice
13	Economies of scale	Identify the correct statement	Multichoice
14	Labour efficiency	Using the table identify the correct answer	Multichoice
15	Production costs	Using the table calculate the correct answer	Multichoice
16	Total costs	Using the graph calculate the correct answer	Multichoice
17	Marginal costs	Using the numbers calculate the correct answer	Multichoice
18	Law of diminishing marginal returns	Identify the correct point on the graph	Multichoice
19	Returns to scale	Using the numbers identify the correct answer	Multichoice
20	Costs	Identify the correct answer	Multichoice
21	Variable costs	Using the numbers identify the correct answer	Multichoice
22	Normal profit	Identify the correct point on the graph	Multichoice
23	Revenue	Using the graph identify the correct answer	Multichoice
24	Shut-down decision	Using the numbers calculate the correct answer	Multichoice
25	Shut-down decision	Using the graph identify the correct answer	Multichoice

**Unit 1: The Price Mechanism**

**The Price Mechanism**

Candidates should understand the rationing, incentive and signalling functions of prices in allocating resources and coordinating the decisions of buyers and sellers in a market economy.

**LEARNING OBJECTIVE**

**Assessing the Price Mechanism**

Candidates should understand the advantages and disadvantages of the price mechanism and be able to evaluate the consequences of introducing it into non-typical markets.

**LEARNING OBJECTIVE**

**DEFINITIONS COVERED:**

- Prices
- Rationing
- Incentive
- Signalling
- Excess demand
- Excess supply
- Market economy
- The economic problem

**CONTENT:**

- Definition of the economic problem
- Introducing the role of the price mechanism in allocating and distributing scarce resources
- Explaining the logical chain of reasoning behind the rationing function of prices
- Graphically representing the rationing function of prices
- Explaining how prices signal information about a market to economic agents
- Showing how prices change to cancel out excess demand and excess supply
- Explaining the logical chain of reasoning behind the incentive function of prices
- Reinforcing the idea behind the three functions that prices have
- Graphically representing the price mechanism in a demand and supply framework

**DEFINITIONS COVERED:**

- Prices
- Rationing function
- Incentive function
- Signalling function
- Excess demand
- Excess supply
- Market economy
- Command economy
- Mixed economy

**CONTENT:**

- Reinforcing the three functions of the price mechanism
- Defining and distinguishing between a command economy and a free market
- Explaining how the price mechanism works in a mixed economy
- Using the NHS as an example of how the price mechanism can in some cases be unnecessary
- Using the armed forces as an example of how the price mechanism can in some cases be unnecessary
- Using the act of giving blood as an example of how the price mechanism can in some cases be unnecessary

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Excess demand	Identify the correct statement	Multichoice
2	Rationing function	Identify the correct statement	Multichoice
3	Signalling function	Identify the correct graph	Multichoice
4	Excess supply	Using the graph identify the correct answer	Multichoice
5	Free market	Identify the correct statement	Multichoice
6	Price functions	Match the outcomes to the correct price functions	Matchdropdown
7	Price functions	Match the functions to the correct arrows on the graph	Matchdropdown
8	The price mechanism	Match the terms to the correct definitions	Matchdropdown
9	The price mechanism	Complete the logical chain of reasoning	Matchdropdown
10	The price mechanism	Identify the correct statement	Multichoice



6.1	The Price Mechanism
6.2	Market Structure and the Objectives of Firms
6.3	Perfect Competition
6.4	Monopolistic Competition
6.5	Technological Change
6.6	The Growth of Firms

**Unit 2: Market Structure and the Objectives of Firms**

**Market Structure**

Candidates should understand that the structure of markets can range from perfectly competitive markets to monopolies.



**DEFINITIONS COVERED:**

- Competitive markets

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- Perfect competition

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- Monopolistic competition

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- Oligopoly

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- Monopoly

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- Product differentiation

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- Barriers to entry and exit

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**CONTENT:**

- Showing that there are a number of different classifications for a market structure – perfect competition, monopolistic competition, oligopoly and monopoly

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- Describing the factors in which a market structure depends on – barriers to entry and exit, product differentiation and number of firms

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- Comparing how each of those factors vary across the four different market structures

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- Explanation that real world markets are never perfectly competitive

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## Unit 2: Market Structure and the Objectives of Firms

### Objectives of Firms

### LEARNING OBJECTIVE

Candidates should understand the traditional assumption that firms maximise profits and that there are a range of other possible business objectives.

#### DEFINITIONS COVERED:

Profit maximising

Marginal cost

Marginal revenue

Revenue maximising

Corporate social responsibility

Non-profit organisations

Market share

Public sector

Non-profit organisations

Satisficing

#### CONTENT:

- Explanation surrounding the traditional theory of firms – profit maximisation
- Introducing the profit maximisation condition ( $MR=MC$ )
- Explaining the logical chain of reasoning behind why profit maximisation for firms occurs at  $MR=MC$
- Explaining the logical chain of reasoning for a firm if  $MR>MC$
- Explaining the logical chain of reasoning for a firm if  $MR<MC$
- Graphically representing the profit maximisation condition for a firm
- Outlining the other business objectives firms have – survival, market share, maximise revenue, corporate social responsibility and maximising sales volumes
- Using a post office as an example of a firm who wishes to put survival ahead of profit maximisation
- Explaining the logical chain of reasoning of why some firms focus on increasing market share
- Explaining the revenue maximisation condition
- Graphically representing the revenue maximisation point on a total revenue curve
- Explaining the decision for firms to maximise sales volumes over profits
- Explaining the different objectives that public sector firms have compared to private sector firms
- Introducing the concept of non-profit organisations
- Defining the term satisficing
- Explaining the logical chain of reasoning behind why firms decide to satisfice

6.1	The Price Mechanism
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## Ownership and Control

Candidates should understand that for many firms, there is a divorce of ownership from control and the potential consequences of this scenario.

**LEARNING OBJECTIVE**

### DEFINITIONS COVERED:

Principal-agent problem  
Shareholder  
Stakeholder  
Misaligned incentives  
Imperfect information

### CONTENT:

- Introducing the concept of the principal-agent problem
- Applying the principal-agent problem to the disparity of objectives between shareholders and managers
- Explanation of the two main causes of the principal-agent problem – misaligned incentives and imperfect information
- Applying the principal-agent problem to voters and MPs
- Outlining the principal-agent problem as a persistent issue in the public sector
- Definition of stakeholders
- Examples of some of the typical economic stakeholders of a firm – government, shareholders, management, customers, staff and the local community

### ASSESSMENT

Question	Learning Target	Task	Style
1	Market structure	Match the terms to the correct definitions	Matchdropdown
2	Market structure	Match the appropriate descriptions to the correct market structure	Matchdropdown
3	Profit maximisation	Match the situations with the correct actions for a firm	Matchdropdown
4	Objectives	Identify the true statement	Multiresponse
5	Business objectives	Match the statements with the correct business objectives	Matchdropdown
6	Revenue maximisation	Identify the correct statement	Multichoice
7	Revenue maximisation	Identify the correct statement	Multiresponse
8	Non-profit organisations	Identify the correct statement	Multichoice
9	Satisficing	Identify the correct statement	Multichoice
10	Satisficing	Identify the correct statement	Multichoice
11	Principal-agent problem	Complete the logical chain of reasoning	Matchdropdown
12	Principal-agent problem	Identify the correct example(s)	Multiresponse
13	Principal-agent problem	Identify the correct answer	Multichoice
14	Stakeholders	Assess whether the statement is true or false	True/false
15	Profit maximisation	Using the table calculate the correct answer	Multichoice

## Unit 3: Perfect Competition

### The Concept of Perfect Competition

Candidates should understand the assumptions of perfect competition, their implications for the behaviour of perfectly competitive firms and the nature of perfectly competitive markets.

**LEARNING OBJECTIVE**

### DEFINITIONS COVERED:

Perfect competition  
Homogeneous products  
Perfect information  
Barriers to entry and exit  
Price takers  
Normal profit  
Perfectly elastic demand curve  
Supernormal profits  
Normal profits

### CONTENT:

- Introducing the main assumptions of a perfectly competitive market
- Explanation of why it is important to have many buyers and sellers in the market
- Explanation of why it is important to have perfect information in the market
- Explanation of why it is important that all firms produce homogeneous products in the market
- Explanation of why it is important that there are no barriers to entry or exit
- Introduce the concept of firms being price takers
- Explanation of why firms in a perfectly competitive market cannot charge a price above or below the prevailing market price
- Explanation of how price taking behaviour leads to a perfectly elastic demand curve
- Explanation of why firms in a perfectly competitive market can only make supernormal profit in the short-run
- Explanation of why firms in a perfectly competitive market can only make normal profit in the long-run
- Emphasising that perfectly competitive markets are only a theoretical tool

Unit 3: Perfect Competition - CONTINUED >

## Unit 3: Perfect Competition

### Diagrammatic Analysis of Perfect Competition

Candidates should understand how to diagrammatically analyse the perfect competition model in both the short-run and long-run.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Perfect competition  
Short-run  
Long-run  
Supernormal profit  
Normal profit  
Economic loss

#### CONTENT:

- Reinforcing the main assumptions of a perfectly competitive market
- Graphically representing a perfectly competitive firm
- Graphically representing a perfectly competitive market
- Graphically highlighting the presence of supernormal profits in the short-run
- Graphically highlighting the removal of supernormal profits in the long-run
- Summary of the key results for a perfectly competitive market in both the short-run and the long-run
- Graphically representing shifts in the supply curves when firms decide to enter and leave the market
- Graphically representing that firms in this market always produce at the point of profit maximisation

### Assessing Perfect Competition

Candidates should be able to evaluate the effectiveness of perfect competition as a market structure and its implications for the allocation of resources.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Perfect competition  
Productive efficiency  
Allocative efficiency  
Innovation  
Invention  
Research and development

#### CONTENT:

- Reinforcing the long-run scenario for all perfectly competitive firms and the market
- Definition for productive efficiency
- Showing that productive efficiency is achieved when producing at the bottom of the AC curve
- Graphically representing the point of productive efficiency
- Definition of allocative efficiency
- Showing that allocative efficiency is achieved where  $P=MC$
- Graphically representing the point of allocative efficiency
- Outlining that perfectly competitive firms are both productively and allocatively efficient
- Showing that no externalities can be present for these efficiencies to hold
- Introducing the logical chain of reasoning that perfect competition may not encourage long-term economic growth

**MODULE 6**

Competitive Markets

**MODULE 7**

Imperfectly Competitive Markets

**MODULE 8**

The Labour Market

**MODULE 9**

Market Failure

**MODULE 10**

Government Intervention

6.1	The Price Mechanism
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**Unit 4: Monopolistic Competition****Monopolistic Competition****LEARNING OBJECTIVE**

Candidates should understand the main characteristics of monopolistic competition.

**DEFINITIONS COVERED:**

Monopolistic competition

Barriers to entry and exit

Product differentiation

Branding

Non-price competition

Price maker

Perfect information

Brand loyalty

**CONTENT:**

- Introducing the assumptions of monopolistic competition – combining elements of perfect competition and monopoly
- Explanation of the way that firms can differentiate products – branding, packaging, quality, extra features and customer service
- Example of differentiated products in the fast food market
- Explanation of how firms can become price makers through product differentiation
- Explaining the link between non-price competition and establishing brand loyalty
- Introducing the logical chain of reasoning regarding non-price competition

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Perfect competition assumptions	Identify the correct assumption(s)	Multiresponse
2	Perfect competition	Assess whether the statement is true or false	True/false
3	Price takers	Identify the correct factor(s)	Multiresponse
4	Perfectly competitive firm	Match the scenarios with the correct rationale	Matchdropdown
5	Supernormal profits	Complete the logical chain of reasoning	Matchdropdown
6	Profits	Label the diagram correctly	Matchdropdown
7	Perfectly competitive market	Label the diagram correctly	Matchdropdown
8	Perfect competition	Identify the correct diagram	Multichoice
9	Demand shock	Put the diagrams in chronological order	Matchdropdown
10	Economic loss	Identify the correct statement	Multichoice
11	Normal profits	Identify the correct statement	Multiresponse
12	Productive efficiency	Identify the true statement(s)	Multiresponse
13	Survival	Assess whether the statement is true or false	True/false
14	Innovation/invention	Complete the logical chain of reasoning	Matchdropdown
15	Productive efficiency	Identify the correct statement(s)	Multiresponse

Unit 3: Monopolistic Competition - CONTINUED >

## Unit 4: Monopolistic Competition

### Diagrammatic Analysis of Monopolistic Competition

Candidates should understand the formal diagrammatic analysis of the monopolistically competitive model in both the short and long-run.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Monopolistic competition  
Short-run  
Long-run  
Normal profit  
Supernormal profit  
Economic losses

#### CONTENT:

- Reinforcing the link between product differentiation and brand loyalty
- Graphical depiction of the downward sloping demand curve facing firms in this type of market structure
- Explanation of why the marginal revenue curve is twice as steep as the demand curve
- Graphically identifying the profit maximization point of  $MR=MC$
- Graphically identifying the level of profits firms make at this profit maximization point
- Explanation that in the long-run all supernormal profits are eliminated because of entry of new firms – in the long-run firms only make normal profits
- Graphically representing a scenario where firms make a loss despite producing at the profit maximization point
- Summary of the logical chain of reasoning surrounding firms in a monopolistically competitive market

### Assessing Monopolistic Competition

Candidates should be able to evaluate the effectiveness of monopolistic competition as a market structure and its implications for the allocation of resources.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Monopolistic competition  
Productive efficiency  
Allocative efficiency  
Dynamic efficiency  
Non-price competition  
Product differentiation  
Average cost curve  
Marginal cost

#### CONTENT:

- Reinforcing the point that firms in this market structure always make normal profits in the long-run
- Definition of productive efficiency
- Identifying this point of productive efficiency takes place at the bottom of the AC curve
- Showing graphically that firms in this type of market structure do not typically produce at the productively efficient point of production
- Definition of allocative efficiency
- Identifying this point of allocative efficiency takes place at the point where  $P=MC$
- Showing graphically that firms in this type of market structure do not typically produce at the allocatively efficient point of production
- Comparison of the efficiencies achieved in a monopolistically competitive market with a perfectly competitive market
- Evaluation point to explain that despite this monopolistic competition brings product differentiation and more choice for consumers
- Explanation of the logical chain of reasoning in which differentiated products leads to efficiency gains over time

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**Unit 5: Technological Change****Technological Change****LEARNING OBJECTIVE**

Candidates should understand the difference between invention and innovation and how technological change can affect firms and markets.

**DEFINITIONS COVERED:**

Technological change

Innovation

Invention

Productivity

Process innovation

Long-run growth

Consumer surplus

Patents

R&amp;D

**CONTENT:**

- Defining and distinguishing between invention and innovation
- Introducing examples of products bringing invention and innovation to reinforce the difference between the two
- Explanation of the economic benefits that technological change can give an economy
- Definition of process innovation
- Using Ford as an example of process innovation
- Graphical representation of how process innovation leads to increased consumer surplus
- Graphical representation of the impact of process innovation on a firm's marginal and average cost curves
- Graphical representation of the impact process innovation has on the productive capacity of the economy
- Explanation of the techniques governments can use to encourage innovation – patents, R&D incentives and entrepreneur assistance
- A summary of the best market structure suited to encourage and promote innovation

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Monopolistic competition	Identify the correct assumptions	Multiresponse
2	Monopolistic competition	Identify the correct answer(s)	Multiresponse
3	Price takers	Identify the correct reason	Multichoice
4	Demand curve	Assess whether the statement is true or false	True/false
5	Economic losses	Identify the correct statement(s)	Multiresponse
6	Supernormal profit	Identify the correct graph	Multichoice
7	Long-run monopolistic competition	Identify the correct graph	Multichoice
8	Monopolistic competition	Identify the correct statement(s)	Multiresponse
9	Monopolistic competition	Identify the correct points on the graph	Matchdropdown
10	Product innovation	Complete the logical chain of reasoning	Matchdropdown

Unit 5: Technological Change - CONTINUED &gt;

## Unit 5: Technological Change

### Creative Destruction

Candidates should understand the process of creative destruction and how this relates to technological change.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Creative destruction  
Joseph Schumpeter  
Monopoly markets  
Perfect competition  
Innovation  
Invention  
R&D  
Barriers to entry

#### CONTENT:

- Introducing the origins of Joseph Schumpeter's theory of Creative Destruction
- Explanation of the phrase of creative destruction – what innovation and invention creates and destroys
- Example of creative destruction – computers replacing typewriters
- Explanation of how creative destruction can lead to the erosion of barriers to entry
- Using Apple as an example of a firm in which has become more vulnerable due to creative destruction
- Explanation of how creative destruction can lead to monopoly markets being formed
- Highlighting the role the government has to play to ensure that losers from creative destruction are sufficiently protected

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Invention	Assess whether the statement is true or false	True/false
2	Invention/Innovation	Distinguishing invention from innovation	Multiresponse
3	Process innovation	Complete the logical chain of reasoning	Matchdropdown
4	Process innovation effects	Identify the correct graph(s)	Multiresponse
5	Patents	Complete the logical chain of reasoning	Matchdropdown
6	Innovation	Identify the appropriate government policies	Multiresponse
7	Market structures	Match the market structure with the innovation statement	Matchdropdown
8	Creative destruction	Identify the correct answer(s)	Multiresponse
9	Creative destruction	Assess whether the statement is true or false	True/false
10	Creative destruction	Identify the correct statement(s)	Multiresponse

## Unit 6: The Growth of Firms

Candidates should understand how businesses grow and the possible constraints upon business growth.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Organic growth  
External growth  
Vertical integration (Backward and Forward)  
Horizontal integration  
Conglomerate integration  
Mergers  
Demergers  
Economies of scale  
Primary stage  
Secondary stage  
Tertiary stage

#### CONTENT:

- Explanation of why firms decide to grow
- Identifying the two main ways that firms decide to grow – internal and external growth
- Numerical example of organic growth
- Definition of external growth
- Definition of mergers and acquisitions
- Explaining the advantage external growth offers over organic growth
- Identifying and explaining the three stages of production – primary, secondary and tertiary
- Introducing the three forms of external growth a firm can achieve – horizontal integration, vertical integration and conglomerate integration
- Definition and explanation of horizontal integration
- Definition and explanation of vertical integration
- Distinguishing between backward and forward vertical integration
- Definition of conglomerate integration
- Outlining the reasons why firms engage in conglomerate integration
- Definition of demergers
- Explanation of the logical chain of reasoning for demergers

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Growth factors	Identify the correct factor(s)	Multiresponse
2	Types of growth	Distinguish between internal and external growth	Multichoice
3	Organic growth	Using the numbers identify the correct answer	Multichoice
4	Mergers	Complete the logical chain of reasoning	Matchdropdown
5	Stages of production	Match the stages of production with the correct industry	Matchdropdown
6	Growth of firms	Match the scenario with the correct term	Matchdropdown
7	Vertical integration	Identify the correct statement	Multichoice
8	Conglomerate integration	Identify the correct answer	Multichoice
9	Firm expansion	Identify the correct answer	Multichoice
10	Demergers	Using the information identify the correct answer	Multichoice



**MODULE 6**

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**LEARNING OBJECTIVE**

A 25 question assessment to help reinforce and develop students' understanding and knowledge of the basic concepts covered in Module 6 surrounding competitive markets.

**MODULE 6  
EMA****QUESTIONS COVER:**

- **UNIT 1:**  
The Price Mechanism
- **UNIT 2:**  
Market Structures and Objectives of Firms
- **UNIT 3:**  
Perfect Competition
- **UNIT 4:**  
Monopolistic Competition
- **UNIT 5:**  
Creative Destruction and Technological Change
- **UNIT 6:**  
Growth of Firms

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Incentive function	Using the graph identify the correct statement	Multichoice
2	PC characteristics	Identify the false characteristic	Multichoice
3	Price functions	Assess whether the statement is true or false	True/false
4	The price mechanism	Match the variables to their most appropriate price function	Matchdropdown
5	Competitive markets	Match the terms to the correct definitions	Matchdropdown
6	Competitive markets	Match the terms to the correct definitions	Matchdropdown
7	Competitive markets	Match the terms to the correct definitions	Matchdropdown
8	Price mechanism	Identify the correct reason(s)	Multiresponse
9	PC assumptions	Using the table identify the correct assumptions	Multichoice
10	Business objectives	Identify the correct answer	Multichoice
11	Economic losses	Identify the correct option	Multichoice
12	Long-run competition	Identify the correct graph	Multichoice
13	Perfect competition	Label the diagram with the correct descriptions	Matchdropdown
14	Efficiency	Identify the correct option	Multichoice
15	Perfectly competitive markets	Identify the true statement(s)	Multiresponse
16	Monopolistic competition	Identify the correct example(s)	Multiresponse
17	Market structures	Using the table identify the correct row	Multiresponse
18	Monopolistic competition	Identify the correct graph	Multichoice
19	Monopolistic competition	Identify the correct answer	Multichoice
20	Monopolistic competition	Assess whether the statement is true or false	True/false
21	Principal-agent problem	Identify the correct statement	Multichoice
22	Profit maximisation	Using the information identify the correct answer	Multichoice
23	Technological change	Complete the logical chain of reasoning	Matchdropdown
24	R&D	Identify the correct statement	Multiresponse
25	Competition	Put statements in chronological order	Matchdropdown

## Unit 1: Monopoly

### Introduction to Monopoly

Candidates should understand the definition of monopoly, the meaning of monopoly power and why monopolies develop.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Monopoly  
 Monopoly power  
 Price maker  
 Barriers to entry  
 Economies of scale  
 Natural monopoly  
 Patents  
 Predatory pricing  
 Sunk costs  
 Minimum efficient scale

#### CONTENT:

- Definition of a monopoly
- Describing why a monopoly market structure is defined as a non-competitive market
- Definition of monopoly power
- Graphical representation of monopoly power in terms of being able to be price makers
- Explanation of why monopolies decide to restrict output below the optimal level
- List of the factors that lead to the development of a monopoly in a market
- Definition of barriers to entry
- Outlining the main barriers to entry in a monopoly market – patents, predatory pricing and sunk costs
- Using crisp manufacturers as an example of firms that have undertaken a large degree of product differentiation
- Examples of the monopolies that the government has created through legislation – NHS and Network Rail
- Definition of economies of scale
- Graphical representation of economies of scale using a LRAC curve
- Introducing the concept of the minimum efficient scale
- Explanation of how a natural monopoly is formed
- Graphical representation of a natural monopoly in terms of the MES

### Diagrammatic Analysis of Monopoly

Candidates should understand the formal diagrammatic analysis of monopoly markets.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Monopoly  
 Supernormal profit  
 Barriers to entry  
 Price maker  
 Profit maximisation  
 Short-run  
 Long-run  
 Shut-down decision

#### CONTENT:

- Reinforcing the concept of a monopoly
- Explanation that the demand curve for a monopoly is the market demand curve
- Graphically representing a monopoly's demand curve and the standard cost curves it faces
- Graphically representing the profit maximising condition for a monopoly
- Graphically showing how a monopoly exploits its market power to charge a price above the marginal cost
- Explanation that monopolists make supernormal profits in both short-run and long-run due to the imposition of barriers to entry
- Showing how changes in the position of the demand curve affect the profit levels for a monopoly firm
- Showing how changes in a monopoly's costs affects the profit levels for a monopoly firm
- Graphically representing the key shut-down points for a monopolist

7.1	Monopoly
7.2	Monopsony
7.3	Oligopoly
7.4	Game Theory
7.5	Calculating Concentration Ratios
7.6	Price Discrimination
7.7	Contestability
7.8	Economic Efficiency

## Assessing Monopolies

### LEARNING OBJECTIVE

Candidates should be able to evaluate the effectiveness of monopoly markets in a variety of contexts.

#### DEFINITIONS COVERED:

Monopoly
Productive efficiency
Allocative efficiency
Dynamic efficiency
Dead-Weight loss
Natural monopoly
Consumer surplus
Producer surplus

#### CONTENT:

- Outlining the different forms of efficiency a firm can gain – productive efficiency, allocative efficiency and dynamic efficiency
- Definition for productive efficiency
- Showing that productive efficiency is achieved when producing at the bottom of the AC curve
- Graphically showing that monopolies do not produce at the productively efficient point
- Definition of allocative efficiency
- Showing that allocative efficiency is achieved where  $P=MC$
- Graphically showing that monopolies do not produce at the allocatively efficient point of production
- Definition of dynamic efficiency
- Explanation that this form of efficiency is driven by innovation and invention
- Graphically representing the effect dynamic efficiency has on a firm's LRAC curve
- Explanation of the argument that monopolies may be more dynamically efficient compared to perfectly competitive markets
- Explaining the logical chain of reasoning behind this argument
- Summary of the main efficiency results under a monopoly
- Introducing the concept of consumer and producer surplus
- Graphically representing consumer and producer surplus in a perfectly competitive market
- Graphically showing how the price making behaviour of a monopoly introduces a deadweight loss into society
- Definition of a natural monopoly
- Example of markets that can be classified as a natural monopoly – railways, telecom and water industry
- Explanation of the logical chain of reasoning behind a natural monopoly being established
- Graphical representation of a natural monopoly

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Pure monopoly	Assess whether the statement is true or false	True/false
2	Monopoly power	Identify the correct answer	Multichoice
3	Predatory pricing	Identify the correct statement	Multichoice
4	Barriers to entry	Complete the logical chain of reasoning	Matchdropdown
5	Sunk costs	Using the numbers calculate the correct answer	Multichoice
6	Supernormal profits	Identify the correct graph	Multiresponse
7	Monopolist	Identify the correct output level	Multichoice
8	Monopolist	Identify the correct statement	Multichoice
9	Monopolist	Using the graph identify the correct answer	Multichoice
10	Monopoly efficiency	Identify the correct statement	Multichoice
11	Market structures	Identify the correct row in the table	Multichoice
12	Dynamic efficiency	Identify the correct description	Multichoice
13	Dead-weight loss	Identify the correct graph	Multichoice
14	Dead-weight loss	Identify the correct graph	Multichoice
15	Natural monopoly	Complete the logical chain of reasoning	Matchdropdown

## Unit 2: Monopsony

### Monopsony

Candidates should understand the concept of monopsony and the costs and benefits of a monopsony.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Monopsony

Monopsony power

Bargaining power

Free trade

#### CONTENT:

- Definition of a monopsony
- Presenting examples of monopsonies – The Government and Amazon
- Definition of monopsony power
- Explanation of how monopsonies use monopsony power to influence the market
- Using supermarkets exploitation of dairy farmers as an example of the negative consequences of monopsony power
- Using UK coffee bean companies as an example of the negative consequences of the exploitation of monopsony power
- Weighing up the welfare changes in a monopsony market

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Monopsonist	Assess whether the statement is true or false	True/false
2	Monopsony power	Identify the correct definition	Multichoice
3	Monopsony power	Complete the logical chain of reasoning	Matchdropdown
4	Labour decision	Using the data calculate the correct answer	Multichoice
5	Monopsony power exploitation	Identify the correct example	Multichoice
6	Marginal cost curve	Identify the correct statement	Multichoice
7	Profit maximisation	Identify the correct condition	Multichoice
8	Labour decision	Identify the correct statement	Multichoice
9	Monopsonist effects	Assess whether the statement is true or false	True/false
10	Monopsony power	Assess whether the statement is true or false	True/false

## Unit 3: Oligopoly

### Introduction to Oligopoly

Candidates understand the main characteristics of oligopolistic markets, how they operate and their market outcomes.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Oligopoly

Pure oligopoly

Realistic oligopoly

Duopoly

Barriers to entry

Non-price competition

Interdependence

Price wars

Predatory pricing

#### CONTENT:

- Definition of an oligopoly
- Breakdown of the types of oligopolies – Pure oligopolies, realistic oligopolies and duopolies
- Explanation that oligopolistic markets are defined in terms of market structure and conduct
- Example of a typical concentration ratio that would fit in an oligopoly market
- Explanation of why there must be a high level of barriers to entry in these types of market
- Definition of firm interdependence
- Definition of non-price competition
- Definition of collusion

7.1	Monopoly
7.2	Monopsony
7.3	Oligopoly
7.4	Game Theory
7.5	Calculating Concentration Ratios
7.6	Price Discrimination
7.7	Contestability
7.8	Economic Efficiency

- Outlining the forms of non-price competition methods that firms rely on to differentiate their products
- Presenting an example of product differentiation using Cadbury's Chocolate Bars
- Introducing the concept of a price war
- Explanation of how price wars eventually lead to the same outcome as under a perfectly competitive market
- Detailed numerical example of a price war between firms
- Explanation of how oligopolists can achieve supernormal profits in the long-run
- Outlining how firms may use pricing strategies to reinforce barriers to entry and protect long-run supernormal profits
- Introducing the concept of predatory pricing
- Definition of limit pricing
- Graphical representation of limit pricing

## Collusion

Candidates should understand why oligopolistic firms may collude, the different forms of collusion and how this impact the oligopolistic market outcomes.

### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Collusion  
Overt collusion  
Tacit collusion  
Price leadership  
Cartels  
Production quota

#### CONTENT:

- Definition of collusion
- Explanation behind firms incentive to collude despite it being an illegal practice
- Detailed numerical example of the economic impact of collusion on the level of economic profit accruing to firms
- Presenting the logical chain of reasoning to explain how firms use collusion to drive new entrants out of the market
- Definition of overt collusion
- Graphical representation of overt collusion for the market and each individual firm
- Highlighting the incentives that firms have to cheat when partaking in a collusive agreement
- Graphically representing the economic impact on the market and individual firms of one firm deciding to produce more than the production quota
- Identifying the factors which make a cartel more successful – perfect information, high barriers to entry and low demand fluctuation
- Using OPEC as an example of real world cartel
- Definition of tacit collusion
- Introducing the concept of price leadership

Unit 3: Oligopoly - CONTINUED >

## Unit 3: Oligopoly

### The Kinked Demand Model

### LEARNING OBJECTIVE

Candidates should understand the kinked demand model is a way of analysing the impact of the assumption of interdependence within oligopolistic markets.

#### DEFINITIONS COVERED:

Kinked demand model

Interdependence

Elastic

Inelastic

Price leadership

#### CONTENT:

- Introducing the concept of the kinked demand curve
- Explanation that the high level of interdependence in an oligopoly creates the kink in the demand curve
- Diagram to show the level of interdependency between firms in these types of markets
- Graphically showing that firms in an oligopoly above the market price will face an elastic demand curve
- Graphically showing that firms in an oligopoly below the market price will face an inelastic demand curve
- Showing that the marginal revenue curve also has a kink
- Graphically showing the profit maximisation point for a firm
- Showing the impact that cost changes have on the production decision for firms when facing a kinked demand curve
- Explanation to identify the Kinked Demand Model is only a model of oligopoly, not the model of oligopoly

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Oligopoly example	Assess whether the statement is true or false	True/false
2	Oligopolies	Match the terms to the correct definitions	Matchdropdown
3	Price leadership	Complete the logical chain of reasoning	Matchdropdown
4	Kinked demand curve	Assess whether the statement is true or false	True/false
5	Interdependency	Assess whether the statement is true or false	True/false
6	Predatory pricing	Identify the correct answer	Multiplechoice
7	Collusion	Distinguish between tacit and overt collusion	Multiplechoice
8	Cartels	Identify the correct answer	Multiplechoice
9	Oligopoly characteristics	Identify the correct characteristics	Multiresponse
10	Oligopoly	Identify the correct statement	Multiplechoice
11	Price leadership	Identify the false statement	Multiplechoice
12	Kinked demand curve	Identify the correct statement	Multiplechoice
13	Oligopoly industries	Identify the correct industry	Multiplechoice
14	Kinked demand curve	Identify the correct point	Multiplechoice
15	Oligopolistic market	Fill in the blanks to complete the statement	Multiplechoice

7.1	Monopoly
7.2	Monopsony
7.3	Oligopoly
7.4	Game Theory
7.5	Calculating Concentration Ratios
7.6	Price Discrimination
7.7	Contestability
7.8	Economic Efficiency

## Unit 4: Game Theory

### Game Theory

### LEARNING OBJECTIVE

Candidates should understand the basic Game Theory fundamentals and elements using famous examples such as the Prisoners' Dilemma game as well as being able to apply these concepts to analyse interdependency in oligopoly markets.

#### DEFINITIONS COVERED:

Game theory
Prisoners' Dilemma
Payoffs
Payoff interdependency
Nash equilibrium
Equilibrium concept
Best response
Collusion
Kinked demand curve

#### CONTENT:

- Definition of game theory
- Distinguishing between game theoretic and decision theoretic situations using examples
- Using games console release as an example of interdependency in decision making
- Introducing the basic elements of game theory – players, outcomes, actions and payoffs
- Identifying the two main assumptions of any game – rationality and common knowledge
- Definition of the prisoners' dilemma game
- Using a 2x2 payoff matrix to represent the prisoners' dilemma game
- Showing a step by step approach to finding the Nash equilibrium of this game
- Definition of Nash equilibrium
- Applying the logic of game theory to oligopoly markets to highlight the high level of interdependency between firms
- Using the kinked demand curve to graphically represent this level of interdependency
- Solution to a game meant to depict a supermarket price war
- Using game theory to evaluate whether collusion takes place in oligopoly markets

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Interdependency	Identify the correct statement	Multiplechoice
2	Strictly dominant strategy	Identify the correct answer	Multiplechoice
3	Game theory assumptions	Identify the correct assumptions	Multiplechoice
4	Prisoners' Dilemma	Assess whether the statement is true or false	True/false
5	Prisoners' Dilemma	Identify the correct statement	Multiplechoice
6	Strategic interdependence	Identify the correct statements	Multiplechoice
7	Nash equilibrium	Identify the correct definition	Multiplechoice
8	Oligopoly	Assess whether the statement is true or false	True/false
9	Nash equilibrium	Identify the Nash equilibrium to this game	Multiplechoice
10	Nash equilibrium	Identify the Nash equilibrium to this game	Multiresponse

## Unit 5: Calculating Concentration Ratios

### Calculating Concentration Ratios

Candidates should be able to calculate concentration ratios and understand their significance.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Concentration ratio  
Market size  
Collusion

#### CONTENT:

- Definition of a concentration ratio
- Numerically showing how different n-firm concentration ratios can be calculated
- Explanation of how to interpret concentration ratios in terms of assessing the degree of competition in the market
- Explanation that the market size represents the share of total revenue the largest firms have earned
- Establishing the link between market size and the respective concentration ratio
- Explanation of the impact that the concentration ratio has on the probability of collusion taking place in the market

### ASSESSMENT

Question	Learning Target	Task	Style
1	3-firm concentration ratio	Using the table calculate the correct answer	Multichoice
2	3-firm concentration ratio	Using the table calculate the correct answer	Multichoice
3	5-firm concentration ratio	Using the table calculate the correct answer	Multichoice
4	6-firm concentration ratio	Using the table calculate the correct answer	Multichoice
5	Concentration ratios	Match the ratios with the correct percentage figure	Matchdropdown
6	3-firm concentration ratio	Using the table calculate the correct answer	Multichoice
7	2-firm concentration ratio	Using the table calculate the correct answer	Multichoice
8	4-firm concentration ratio	Using the table calculate the correct answer	Multichoice
9	Comparing CR's	Identify the correct statement	Multichoice
10	3-firm concentration ratio	Using the table calculate the correct answer	Multichoice

## Unit 6: Price Discrimination

### Price Discrimination

Candidates should understand the principle of price discrimination, the conditions necessary for it to be effective and its impact upon producers and consumers.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Price discrimination  
Perfect price discrimination  
Consumer surplus  
1st degree price discrimination  
2nd degree price discrimination  
3rd degree price discrimination  
Producer surplus  
Arbitrage

#### CONTENT:

- Definition of consumer surplus
- Graphical representation of how consumer surplus is measured
- Showing that consumer surplus is calculated by the area below the demand curve and above the market prevailing price
- Definition of price discrimination
- Tree diagram to show the market outcome without price discrimination
- Tree diagram to show the market outcome with price discrimination



7.1	Monopoly
7.2	Monopsony
7.3	Oligopoly
7.4	Game Theory
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- Using train tickets as an example of a real-life application of price discrimination
- Definition of 1st degree price discrimination
- Detailed numerical example of the impact of 1st degree price discrimination on the market outcome
- Definition of 2nd degree price discrimination
- Numerical example of the impact of 2nd degree price discrimination on the market outcome
- Definition of 3rd degree price discrimination
- Detailed numerical example of the impact of 3rd degree price discrimination on the market outcome

## Diagrammatic Analysis of Price Discrimination

### LEARNING OBJECTIVE

Candidates should understand how to diagrammatically demonstrate the effects of price discrimination.

### DEFINITIONS COVERED:

Price discrimination  
Perfect price discrimination  
Consumer surplus  
1st degree price discrimination  
2nd degree price discrimination  
3rd degree price discrimination  
Producer surplus  
Arbitrage

### CONTENT:

- Graphical representation of 1st degree price discrimination
- Graphically explaining how this form of price discrimination transfers consumer surplus into producer surplus
- Detailed breakdown of how to construct the demand curve for firms engaging in 3rd degree price discrimination
- Graphical representation of two segregated markets and the market as a whole under 3rd degree price discrimination
- Showing that by charging sub-markets different prices it brings the monopolist larger profits at the expense of consumer surplus

### ASSESSMENT

Question	Learning Target	Task	Style
1	Price discrimination	Identify the example that does not relate to price discrimination	Multichoice
2	3rd degree PD	Identify the correct answer	Multichoice
3	Price discrimination	Identify the correct statement	Multichoice
4	Market segregation	Identify the correct statement	Multichoice
5	Perfect price discrimination	Assess whether the statement is true or false	True/false
6	2nd degree PD	Identify the correct form of price discrimination	Multichoice
7	3rd degree PD	Identify the correct answer	Multichoice
8	2nd degree PD	Identify the correct answers	Multiresponse
9	2nd degree PD	Identify the correct statement	Multichoice
10	Price discrimination	Identify the correct form of price discrimination	Multichoice

## Unit 7: Contestability

### Contestability

### LEARNING OBJECTIVE

Candidates should understand the theory of contestable markets, related concepts and the impact of contestability upon the outcomes of a market.

#### DEFINITIONS COVERED:

Contestability

Barriers to entry

Barriers to exit

Sunk costs

Productive efficiency

Allocative efficiency

Potential competition

#### CONTENT:

- Explanation of the theory of contestable markets
- Definition of barriers to entry
- Defining and distinguishing between natural and artificial barriers to entry
- List of the different types of natural barriers to entry in a market – ownership of key resources, large capital costs and network effects
- List of the different types of artificial barriers to entry in a market – patents, brands and advertising and switching costs
- Comparing the characteristics of a market with barriers to entry and a market without barriers to entry
- Definition of barriers to exit
- Explanation of the importance of the presence of barriers to exit in a market
- Introducing the logical chain of reasoning behind hit-and-run competition
- Identifying the impact of hit-and-run entry on a market
- Introducing the concept of sunk costs
- Numerical example to show how sunk costs for a firm arise
- Identifying the features of a contestable market
- Explanation that a contestable market ensures that all firms will only make normal profit in the long-run
- Definition of productive and allocative efficiency
- Graphically evaluating the impact of hit-and-run entry on the productive allocative efficiency of a market

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Natural barriers to entry	Match the terms to the correct definitions	Matchdropdown
2	Artificial barriers to entry	Match the terms to the correct definitions	Matchdropdown
3	Hit-and-run entry	Complete the logical chain of reasoning	Matchdropdown
4	Sunk costs	Identify the correct description	Multichoice
5	Contestable markets	Identify the correct description	Multichoice
6	Perfectly contestable market	Identify the incorrect assumption	Multichoice
7	Sunk costs	Assess whether the statement is true or false	True/false
8	Concentration ratios	Assess whether the statement is true or false	True/false
9	Hit-and-run entry	Identify the correct answer	Multichoice
10	Hit-and-run entry	Identify the correct point on the graph	Multichoice

7.1	Monopoly
7.2	Monopsony
7.3	Oligopoly
7.4	Game Theory
7.5	Calculating Concentration Ratios
7.6	Price Discrimination
7.7	Contestability
7.8	Economic Efficiency

## Unit 8: Economic Efficiency

### Productive Efficiency

Candidates should understand what is meant by productive efficiency, why it is important for society and which types of market structure lead to productive efficiency.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Productive efficiency

Technical efficiency

Perfect competition

Monopoly

Monopolistic competition

Oligopoly

#### CONTENT:

- Definition of productive efficiency
- Explanation of why firms wish to achieve productive efficiency
- Definition of technical efficiency
- Establishing the relationship between productive and technical efficiency
- Graphical representation of the productively efficient point of production i.e. producing at the lowest point of the average cost curve
- A checklist to verify whether each type of market structure is productively efficient
- Graphical representation to show perfectly competitive firms produce at the productively efficient point
- Graphical representation to show monopolies do not produce at the productively efficient point
- Graphical representation to show monopolistically competitive firms failing to produce at the productively efficient point
- Explanation to show the inefficiency under a monopoly is greater than under monopolistic competition
- Graphical representation to show firms in an oligopoly market fail to produce at the productively efficient point
- Outlining the limitations of productive efficiency

### Allocative Efficiency

Candidates should understand what is meant by Allocative efficiency, why it is important for society and which types of market structure lead to Allocative efficiency.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Allocative efficiency

Perfect competition

Monopoly

Monopolistic competition

Oligopoly

#### CONTENT:

- Definition of allocative efficiency
- Explanation of why firms wish to achieve allocative efficiency
- Graphical representation of the allocatively efficient point of production i.e. producing at the point where  $P=MC$
- Explanation that allocative efficiency can also be represented by the  $MB=MC$
- A checklist to verify whether each type of market structure is productively efficient
- Graphical representation to show perfectly competitive firms produce at the allocatively efficient point
- Graphical representation to show monopolies do not produce at the allocatively efficient point
- Graphical representation to show monopolistically competitive firm failing to produce at the allocatively efficient point
- Explanation to show the inefficiency under a monopoly is greater than under monopolistic competition
- Graphical representation to show firms in an oligopoly market fail to produce at the allocatively efficient point
- Establishing the link between productive and allocative efficiency
- Outlining the limitations of allocative efficiency

Unit 8: Economic Efficiency - CONTINUED >

## Unit 8: Economic Efficiency

### Dynamic Efficiency

Candidates should understand what is meant by Dynamic efficiency, why it is important for society and which types of market structure lead to Dynamic efficiency.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Dynamic efficiency  
 Static efficiency  
 Human capital  
 R&D  
 Process innovation  
 Product innovation  
 Perfect competition  
 Monopoly  
 Monopolistic competition  
 Oligopoly

#### CONTENT:

- Defining and distinguishing between dynamic and static efficiency
- Explanation of why firms wish to achieve dynamic efficiency
- List of the different forms that dynamic efficiency can come in – R&D, human capital increase and knowledge transfers
- Explanation that dynamic efficiency can lead to product and process innovation
- Graphical representation of the impact that dynamic efficiency has on a firm's LRAC curve
- Weighing up the pros and cons of dynamic efficiency to a particular firm
- Explanation that it is unlikely that dynamic efficiency will be prevalent in perfectly competitive markets
- Explaining that monopolies face a trade-off when making a decision to pursue dynamic efficiency
- Explanation that dynamic efficiency is prevalent in markets structures such as monopolistic competition
- Outlining it is difficult to assess whether oligopolies will achieve dynamic efficiency

### X-Inefficiency

Candidates should understand what is meant by X-Inefficiency, why it is damaging for society and which types of market structure lead to X-Inefficiencies.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

X-Inefficiency  
 Perfect competition  
 Monopoly  
 Monopolistic competition  
 Oligopoly

#### CONTENT:

- Definition of X-Inefficiency
- Explanation of the causes of X-Inefficiencies
- Graphically showing how a firm's AC curve is influenced by the presence of X-Inefficiencies
- Giving some examples of how X-Inefficiencies typically arise in most firms
- Graphically showing how X-Inefficiencies are prevalent in markets with monopoly power
- Graphically illustrating the impact that X-Inefficiencies have on a monopoly's cost curves
- Outlining that X-Inefficiencies can become prevalent in nationalised industries and firms

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Economic efficiency	Match the terms to the correct definitions	Matchdropdown
2	X-inefficiency	Identify the correct statement	Multichoice
3	Dynamic efficiency	Identify the correct statement	Multichoice
4	Allocative efficiency	Identify the correct statement	Multichoice
5	Allocative efficiency	Identify the correct statement	Multichoice
6	Allocative efficiency	Complete the flowchart	Matchdropdown
7	Productive efficiency	Identify the correct statement	Multiresponse
8	Oligopoly efficiency	Identify the correct point on the graph	Multichoice
9	Product innovation	Assess whether the statement is true or false	True/false
10	Dynamic efficiency	Identify the correct answer	Multichoice
11	Inefficiencies	Identify the correct form of inefficiency	Multichoice
12	Technical efficiency	Assess whether the statement is true or false	True/false
13	Productive efficiency	Assess whether the statement is true or false	True/false
14	Inefficiencies	Identify the correct statement	Multichoice
15	Innovation	Identify the correct statement	Multichoice

**MODULE 6**

Competitive Markets

**MODULE 7**

Imperfectly Competitive Markets

**MODULE 8**

The Labour Market

**MODULE 9**

Market Failure

**MODULE 10**

Government Intervention

- 7.1 Monopoly
- 7.2 Monopsony
- 7.3 Oligopoly
- 7.4 Game Theory
- 7.5 Calculating Concentration Ratios
- 7.6 Price Discrimination
- 7.7 Contestability
- 7.8 Economic Efficiency

**LEARNING OBJECTIVE**

A 25 question assessment to help reinforce and develop students' understanding and knowledge of the basic concepts covered in Module 7 surrounding imperfectly competitive markets.

**MODULE 7  
EMA****QUESTIONS COVER:**

- **UNIT 1:**  
Monopoly
- **UNIT 2:**  
Monopsony
- **UNIT 3:**  
Oligopoly
- **UNIT 4:**  
Game Theory
- **UNIT 5:**  
Calculating Concentration Ratios
- **UNIT 6:**  
Price Discrimination
- **UNIT 7:**  
Contestability
- **UNIT 8:**  
Economic Efficiency

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Imperfectly competitive markets	Match the terms to the correct definitions	Matchdropdown
2	Imperfectly competitive markets	Match the terms to the correct definitions	Matchdropdown
3	Imperfectly competitive markets	Match the terms to the correct definitions	Matchdropdown
4	Price makers	Using the numbers identify the correct answer	Multiresponse
5	Monopoly power	Identify the correct graph	Multiresponse
6	Supernormal profit	Identify the correct graph	Multichoice
7	Monopolist	Identify the correct statement	Multichoice
8	Productive efficiency	Identify the correct statement	Multichoice
9	Monopsony power	Identify the correct answer	Multichoice
10	Monopsony power	Assess whether the statement is true or false	True/false
11	Barriers to entry	Identify the correct market structures	Multiresponse
12	Interdependency	Complete the tree diagram	Matchdropdown
13	Oligopoly	Identify the correct statement	Multichoice
14	Cartels	Identify the correct statements	Multiresponse
15	Kinked demand curve	Identify the correct statement	Multichoice
16	Game theory	Using the tables identify the correct answer	Multichoice
17	Kinked demand curve	Identify the correct diagram	Multichoice
18	Concentration ratios	Using the data calculate the correct answer	Multichoice
19	Concentration ratios	Using the data calculate the correct answer	Multichoice
20	Price discrimination	Identify the correct form of price discrimination	Multichoice
21	Perfect price discrimination	Identify the correct graph	Multichoice
22	Price discrimination	Identify the correct answer	Multichoice
23	Perfectly contestable market	Identify the correct answer	Multichoice
24	Oligopoly	Identify the correct statement	Multichoice
25	Productive efficiency	Identify the correct statement	Multichoice

## Unit 1: The Labour Market

### The Demand for Labour

#### LEARNING OBJECTIVE

Candidates should understand why firms demand labour, the factors which affect the size of the demand for labour, how to draw a labour demand curve and the determinants the elasticity of labour demand.

#### DEFINITIONS COVERED:

Real wage

Labour demand curve

Derived demand

Marginal productivity theory

Wage elasticity of demand

Sub-markets

Factor substitution

Total physical product

Marginal physical product

Marginal revenue product

#### CONTENT:

- Definition of labour demand
- Explaining the thought process behind why firms wish to hire workers
- Introducing and explaining the logical chain of reasoning for the marginal productivity theory
- Graphically representing the marginal productivity theory – marginal physical product diminishes despite total physical product increasing
- Graphically representing the marginal physical product curve and marginal revenue product curve
- Explaining why the MRP is equal to a firm's labour demand curve
- Graphically representing the downward sloping demand for labour curve
- Graphically explaining the concept of labour sub-markets
- Definition of derived demand
- Graphically representing demand for labour curve shifts
- List of the factors that shift the demand for labour curve outwards
- List of the factors that shift the demand for labour curve inwards
- Introducing and explaining the concept of wage elasticity of demand
- Summary of the typical factors that cause a labour market to have an elastic and inelastic demand curve

8.1	The Labour Market
8.2	Labour Market Imperfections
8.3	Minimum Wages

## The Supply of Labour

Candidates should understand why workers are willing to provide labour, how to draw a labour supply curve, factors which affect the labour supply curve and the concept of wage elasticity of supply.

### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Labour supply curve  
Non-monetary factors  
Wage elasticity of supply  
Sub-markets  
Working conditions

#### CONTENT:

- Definition of labour supply
- Explaining the thought process behind why workers are willing to supply their labour
- Graphically introducing the upward sloping labour supply curve
- Explanation of why the supply curve for labour slopes in an upward direction
- Graphical representation of different sub-markets labour supply curves
- Graphically illustrating outward and inward shifts in the labour supply curve
- List of the factors that shift the supply of labour curve outwards
- List of the factors that shift the supply of labour curve inwards
- Introducing and explaining the concept of wage elasticity of supply
- Summary of the typical factors that cause a labour market to have an elastic and inelastic supply curve

## The Backward-Bending Labour Supply Curve

Candidates should understand how to construct the backward-bending labour supply curve, explain the income and substitution effects and evaluate the impact of the model upon real life labour markets.

### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Backwards-bending labour supply curve  
Leisure  
Labour  
Substitution effect  
Income effect  
Trade-off

#### CONTENT:

- Explaining the labour-leisure trade-off that workers face
- Defining and explaining the substitution effect – workers willing to substitute more labour for leisure the higher their nominal wage rates
- Defining the income effect – Larger income encourages more leisure consumption
- Graphically representing the backwards-bending labour supply curve using the logic of the substitution and income effect
- Breaking down the income and substitution effect on this supply curve
- Identifying that some workers have a target wage and will choose leisure over labour and higher wages may be an ineffective way to encourage a larger supply of labour

**Unit 1: The Labour Market**

**Perfectly Competitive Labour Markets**

Candidates should understand how wages are determined in a perfectly competitive labour market and why wages may differ across industries and geographical locations.

**LEARNING OBJECTIVE**

**Economic Rent and Transfer Payments**

Candidates should understand the difference between transfer earnings and economic rent, demonstrate this diagrammatically and explain their main determinant.

**LEARNING OBJECTIVE**

**DEFINITIONS COVERED:**

- Equilibrium wage rate
- Equilibrium employment
- Labour demand curve
- Labour supply curve
- Wage elasticity
- Unemployment

**CONTENT:**

- Explaining the main assumptions that hold in a perfectly competitive labour market
- Graphical representation of an equilibrium in a perfectly competitive labour market
- Explaining how the wage rate changes in order to cancel out excess demand and supply for labour
- Graphically representing labour market equilibrium changes brought about by shifts in the labour demand and supply curves i.e. net migration and productivity changes
- The importance of considering the elasticity of labour demand and supply curves when assessing the precise impact of demand and supply curve shifts
- Graphically illustrating how the labour market equilibrium changes for different sub-markets

**DEFINITIONS COVERED:**

- Transfer earnings
- Economic rent
- Labour demand curve
- Labour supply curve
- Wage elasticity of supply

**CONTENT:**

- Defining and highlighting the difference between transfer earnings and economic rent
- Graphically representing transfer payments as the area under the supply of labour curve and below the prevailing wage rate
- Graphically representing economic rent as the area above the supply of labour curve and below the prevailing wage rate
- Applying the theory of the wage elasticity of supply to determine the size of transfer earnings and economic rent

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Labour market	Match the terms to the correct definitions	Matchdropdown
2	Marginal revenue product	Identify the correct statement	Multichoice
3	Marginal physical product	Assess whether the statement is true or false	True/false
4	Marginal revenue product	Identify the correct statement	Multichoice
5	Labour demand curve shifts	Identify the correct statement	Multichoice
6	Supply of labour	Identify the correct statement	Multichoice
7	Labour demand curve shifts	Identify the correct answer(s)	Multiresponse
8	Labour supply curve shifts	Identify the correct answer(s)	Multiresponse
9	Wage elasticity of supply	Assess whether the statement is true or false	True/false
10	Inelastic labour demand	Identify the correct cause	Multichoice



8.1	The Labour Market
8.2	Labour Market Imperfections
8.3	Minimum Wages

## Unit 2: Labour Market Imperfections

### Monopsony Power

To be able to analyse the impact of a monopsony buyer of labour, demonstrate the effects graphically and evaluate the effectiveness of potential solutions.

### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Minimum wage

Monopsony

Monopsony power

Marginal cost of labour

#### CONTENT:

- Definition of a monopsony
- Definition of monopsony power
- An example of the government as a single buyer of labour (**NHS, Police services and Civil servants**)
- Numerically deriving the upward sloping marginal cost for labour curve for a monopsony
- Graphically representing a monopolistic labour market
- Evaluating the impact of monopsony power on employment – lower wages and employment
- Explaining the intuition behind introducing a minimum wage into a monopsony labour market
- Explanation of the importance of not setting this wage too high in a monopsony market
- Evaluation points on assessing a monopsony employer

## Unit 2: Labour Market Imperfections

### Trade Unions

Candidates should be able to understand the role of a trade union to influence wages and levels of employment in different labour market scenarios.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Trade union

---

Perfectly competitive labour market

---

Monopsony labour market

---

Employment

---

Wage level

---

Real-wage unemployment

---

Collective bargaining

---

Bilateral monopoly

---

Efficiency wage argument

---

Keynesian argument

---

Elastic labour demand curve

---

Inelastic labour demand curve

#### CONTENT:

- Definition of a trade union
- Identifying the main aims and objectives of a trade union
- Examples of trade unions that have been formed in the UK (Unite, PFA and ATL)
- Graph to show how trade union membership levels have declined in the UK since 1982
- Explanations put forward to explain why this decline has taken place
- Graph to show how wage levels have risen despite trade union power diminishing
- Illustrating the impact of a trade union in a perfectly competitive labour market
- Illustrating the impact of a trade union in a monopsonistic labour market
- Introducing the concept of a bilateral monopoly
- Explaining the economic arguments for trade union intervention
- Explaining the economic arguments against trade union intervention
- Evaluating the importance of elasticity when considering the effects of trade union intervention

### Discrimination

Candidates should understand the effects of discrimination and the prevalence of labour market discrimination in the UK.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Perfect wage discrimination

---

Gender discrimination

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Gender pay gap

---

Race discrimination

---

Equality Act 2010

#### CONTENT:

- Graphically highlighting that wage discrimination involves the exploitation of different workers reservation wage
- Explanation that only firms with market power can pay individual wages and reduce overall wage bill – despite being an illegal practice
- Introducing the concept of the gender pay gap with figures from UK, Slovenia and Estonia
- Explanation of the factors that drive gender discrimination in the labour market
- Explanation behind racial discrimination making reference to the 2003 National Bureau of Economic Research Paper titled “Are Emily and Greg more employable than Lakisha and Jamal?”

8.1	The Labour Market
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- Outlining the other main forms of labour discrimination (age, disability, religion and sexual orientation)
- Explanation that discrimination can cause supply of labour curve to shift inwards – reducing the possible pool of workers to hire
- Explanation that discrimination can cause demand for labour curve to shift inwards – less demand for their labour
- Evaluating whether discrimination is less of a problem in the UK labour market since the outlaw of the Equality Act 2010

## ASSESSMENT

Question	Learning Target	Task	Style
1	Gender pay gap	Identify the correct answer	Multichoice
2	Labour market imperfections	Match the terms with their correct descriptions	Matchdropdown
3	Equal Pay Act	Assess whether the statement is true or false	True/false
4	Bargaining power	Assess whether the statement is true or false	True/false
5	Trade unions	Identify the correct answer	Multichoice
6	Monopsony	Identify the correct statement	Multichoice
7	Monopsony	Fill in the blanks to complete the sentence	Multichoice
8	Marginal cost of labour	Using the table calculate the correct answer	Multichoice
9	Marginal cost curve	Identify the correct statement	Multichoice
10	Monopsony	Assess whether the statement is true or false	True/false

## Unit 3: Minimum Wages

### Minimum Wages

### LEARNING OBJECTIVE

To be able to understand the effects of a national minimum wage upon labour markets and the associated advantages and disadvantages of this.

#### DEFINITIONS COVERED:

Minimum wage

Living wage

Real-wage unemployment

Inequality

Poverty

Efficiency wage argument

Big Mac Index

Absolute poverty

Relative poverty

Monopsony

#### CONTENT:

- Definition of a minimum wage
- Summary of the main characteristics of the UK national minimum wage
- Breakdown of the minimum wage earned by different age groups in the UK (correct as of Nov 2015)
- Graph to show the change in the real and relative value of the national minimum wage in the UK between 1999-2014
- Table to illustrate the Big Mac Index for a select group of countries - to assess the purchasing power of countries minimum wages.
- Graphical representation of a minimum wage imposed below the prevailing equilibrium wage rate
- Graphical representation of a minimum wage imposed above the prevailing equilibrium wage rate
- Explanation that a minimum wage can create real-wage unemployment when imposed a perfectly competitive labour market
- Logical chain of reasoning to show that the minimum wage can lead to lower long-term unemployment (Keynesian argument)
- Logical chain of reasoning to show that the minimum wage can lead to higher productivity (Efficiency wage argument)
- Explanation of the benefits of a minimum wage – reduce inequality and poverty
- Illustrating the effects of the minimum wage in a monopsony labour market structure
- Summary of the key economic impacts on consumers, firms, workers and the economy
- Evaluation points on assessing the impact of the minimum wage on a labour market (level of increase, elasticity of curves, level of economic growth and productivity increases)
- Definition of the national living wage
- Evaluation points on assessing the impact of the national living wage on a labour market.

#### ASSESSMENT

Question	Learning Target	Task	Style
1	UK national minimum wage	Assess whether the statement is true or false	True/false
2	Minimum wages	Assess whether the statement is true or false	True/false
3	Keynesian argument	Complete the logical chain of reasoning	Matchdropdown
4	Efficiency wage argument	Complete the logical chain of reasoning	Matchdropdown
5	Excess supply of labour	Identify the correct statement	Multichoice
6	Minimum wages	Identify the correct statement	Multichoice
7	Producer surplus	Fill in the blanks to complete the sentence	Multichoice
8	Consumer surplus	Fill in the blanks to complete the sentence	Multichoice
9	Inelastic labour demand curve	Identify the correct statement	Multichoice
10	Big Mac Index	Identify the correct answer	Multichoice

8.1	The Labour Market
8.2	Labour Market Imperfections
8.3	Minimum Wages

**LEARNING  
OBJECTIVE**

A 25 question assessment to help reinforce and develop students' understanding and knowledge of the basic concepts covered in Module 8 surrounding the labour market.

**MODULE 8  
EMA**

**QUESTIONS  
COVER:**

- **UNIT 1:**  
The Labour Market
- **UNIT 2:**  
Labour Market Imperfections
- **UNIT 3:**  
Minimum Wages

**ASSESSMENT**

Question	Learning Target	Task	Style
1	The labour market	Match the terms with the correct definitions	Matchdropdown
2	The labour market	Match the terms with the correct definitions	Matchdropdown
3	The labour market	Match the terms with the correct definitions	Matchdropdown
4	Hiring decision	Identify the correct statement	Multichoice
5	Total physical product	Using the table identify the correct answer	Multichoice
6	Labour demand curve	Identify the correct statement	Multichoice
7	Labour demand curve	Identify the correct factor(s)	Multiresponse
8	The labour market	Identify the correct graph	Multichoice
9	Labour supply curve	Identify the correct factor(s)	Multiresponse
10	Wage rate changes	Identify the correct statement	Multichoice
11	Labour supply curve	Identify the correct factor(s)	Multiresponse
12	Supply of labour	Identify the correct statement	Multichoice
13	Labour market equilibrium	Identify the correct graph	Multichoice
14	Perfectly competitive labour market	Identify the correct statement	Multichoice
15	Migration effects	Identify the correct statement	Multichoice
16	Labour productivity	Identify the correct statement	Multichoice
17	Labour supply curve	Assess whether the statement is true or false	True/false
18	Monopsony	Identify the correct answer	Multichoice
19	Monopsony	Identify the correct statement	Multichoice
20	Monopsony	Identify the correct statement	Multichoice
21	Minimum wage	Identify the correct line on the graph	Multichoice
22	Trade union	Identify the correct statement	Multichoice
23	Trade union	Assess whether the statement is true or false	True/false
24	Efficiency wage argument	Complete the logical chain of reasoning	Matchdropdown
25	Trade union	Identify the correct statement	Multichoice

**Unit 1: Introduction to Market Failure**

**Introduction to Market Failure**

Candidates should understand that market failure occurs whenever a market leads to a misallocation of resources and should appreciate the difference between complete and partial market failure.

**LEARNING OBJECTIVE**

**DEFINITIONS COVERED:**

- Market failure
- The economic problem
- Objectives
- Complete market failure
- Missing markets
- Partial market failure
- Misallocation of resources
- Monopoly

**CONTENT:**

- Definition of the economic problem
- Introducing the concept that markets often lead to a misallocation of resources
- Introducing the different market participants (producers, consumers and the government) and their objectives (profit, utility and welfare)
- Explanation that in some markets these objectives conflict and produce outcomes which do not maximise welfare
- Definition of market failure
- Definition and explanation of complete market failure – missing markets
- Definition and explanation of partial market failure – merit/demerit goods
- Applied example of how monopolies lead to a form of partial market failure

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Market failure	Identify the correct definition	Multiresponse
2	Market failure	Identify the correct graph	Multiresponse
3	Welfare maximisation	Identify the correct answer	Multichoice
4	Utility maximisation	Identify the correct answer	Multichoice
5	Market participants	Match the agents to the correct maximisation objective	Matchdropdown
6	Market failure examples	Match the type of market failure with the examples	Matchdropdown
7	Misallocation of resources	Identify the correct definition	Multichoice
8	Market failure	Assess whether the statement is true or false	True/false
9	Market failure explanations	Identify the correct statement	Multichoice
10	Market participants	Assess whether the statement is true or false	True/false

**Unit 2: Public Goods**

**Public Goods**

Candidates should understand the characteristics of public goods and appreciate the difference between public and private goods.

**LEARNING OBJECTIVE**

**DEFINITIONS COVERED:**

- Private goods
- Public goods
- Non-excludability
- Non-rivalry
- Free-rider problem
- Non-pure public goods
- State provision

**CONTENT:**

- Definition of a private good
- Explanation of the two characteristics of a private good – excludability and rivalry
- Example of a private good and the characteristics it displays
- Definition of a public good
- Explanation of the two characteristics of a public good – non-excludability and non-rivalry
- Example of a public good and the characteristics it displays
- Introducing the logical chain of reasoning behind the free-rider problem and how state provision is required for some goods
- Explanation of how market provision for public goods is prevented
- Definition of a non-pure public good
- Outlining the characteristics that non-pure public goods have
- Presenting examples of non-pure public goods

9.1	Introduction to Market Failure
9.2	Public Goods
9.3	Externalities
9.4	Market Imperfections
9.5	The Environment

## Tragedy of the Commons and Property Rights

Candidates should understand the relevance of the tragedy of the commons for environmental market failures and why the absence of property rights may lead to market failure.

**LEARNING OBJECTIVE**

### DEFINITIONS COVERED:

- Tragedy of the commons
- Individual incentive
- Shared costs
- Over exploitation
- Property rights
- Excludability
- Social welfare

### CONTENT:

- Definition of the tragedy of the commons
- Detailed example of the tragedy of the commons applied to over-grazing in the agricultural market
- Highlighting how shared access to a common resource often results in exploitation
- Modern day example of the tragedy of the commons applied to the fishing industry
- Definition of property rights
- Evaluating the impact of enforcing property rights onto a market

### ASSESSMENT

Question	Learning Target	Task	Style
1	Tragedy of the commons	Match the terms with the correct definitions	Matchdropdown
2	Tragedy of the commons	Match the terms with the correct definitions	Matchdropdown
3	Pure public good	Identify the correct good	Multichoice
4	Rivalry	Identify the correct good	Multichoice
5	Non-pure public good	Identify the correct good	Multichoice
6	State provision	Identify the correct answer	Multichoice
7	Public goods	Identify the correct option(s)	Multiresponse
8	Free-rider problem	Identify the correct option(s)	Multiresponse
9	Over-fishing	Complete the logical chain of reasoning	Matchdropdown
10	Property rights	Identify the correct statement	Multichoice

## Unit 3: Externalities

### Externalities

Candidates should understand that externalities exist when there is a divergence between private and social costs and benefits

**LEARNING OBJECTIVE**

### DEFINITIONS COVERED:

- Externality
- Internal cost/benefit
- External cost/benefit
- Private costs/benefits
- Social costs/benefits
- Consumption
- Production
- Negative consumption externality
- Positive production externality
- Positive consumption externality
- Negative production externality

### CONTENT:

- Reinforcing the maximisation objectives of economic agents
- Definition of the internal costs/benefits
- Explanation that private costs/benefits relate to internal costs/benefits
- Example of weighing up the private costs and benefits of smoking
- Definition of the external costs/benefits
- Explanation that the sum of external and internal costs/benefits is equal to social costs/benefits
- Example of weighing up the social costs and benefits of smoking
- Showing that whenever there exists a divergence between social costs and benefits there must be an externality present
- Using smoking as an example of a negative consumption externality
- Example of weighing up the social costs and benefits of building a new airport
- Using the construction of a new airport as an example of a positive production externality
- Breaking down and explaining the main types of externalities – production externalities (positive and negative) and consumption externalities (positive and negative)

Unit 3: Externalities - CONTINUED >

## Unit 3: Externalities

### Merit and Demerit Goods

Candidates should understand that the classification of merit and demerit goods depends upon a value judgement and that such products may also be subject to positive and negative externalities in consumption.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Merit goods

Demerit goods

Externalities

Imperfect information

Value judgements

#### CONTENT:

- Defining and distinguishing between merit and demerit goods
- Explanation of the main reasons why goods may not be optimally provided – presence of externalities and imperfect information
- Using pension schemes as an example of a merit good that is under provided
- Using illegal drugs as an example of a demerit good that is over provided
- Definition of a value judgement
- Explanation that classification of a merit or demerit good depends on the individual

### Marginal Cost and Benefit Diagrams

Candidates should be able to illustrate the misallocation of resources resulting from externalities and the consumption of merit and demerit goods.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

The margin

Marginal cost/benefit

Total cost

Marginal external benefit

Deadweight loss

Over provision

Under provision

#### CONTENT:

- Explanation of the economic meaning behind the word margin
- Numerical example to show how the marginal cost can be calculated from the total cost
- Deriving the marginal cost and benefit curves from the demand and supply curves
- Using the demand curve to represent the marginal private benefit
- Using the supply curve to represent the marginal private cost
- Graphically representing a market with no externalities present – where private costs are equal to social costs
- Graphically representing externalities in a marginal benefit/cost diagram
- Introducing a step by step approach to model externalities in this framework
- Illustrating that the marginal external benefit is represented by the vertical distance between MSB and MPB curves – present with positive consumption externalities
- Introducing the concept of the deadweight loss triangle - The triangle 'trapped' represents the loss of welfare due to the externality
- Graphically representing the deadweight loss triangle for different forms of externalities



9.1	Introduction to Market Failure
9.2	Public Goods
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## Unit 4: Market Imperfections

### Immobility

Candidates should understand that the immobility of factors of production is likely to result in a misallocation of resources and therefore cause market failure.

**LEARNING  
OBJECTIVE**

#### DEFINITIONS COVERED:

Factor immobility

Geographical immobility

Occupational immobility

Market failure

Factors of production

Productive process

#### CONTENT:

- Reinforcing the basic structure of the production process i.e. turning inputs into outputs
- Explaining how factors of production can be allocated to produce specific goods if they have perfect mobility
- Example to show how factor immobility produces problems in the economy
- Definition of geographical immobility
- Explaining the three main causes of geographical immobility – local connections, frictions in the housing market and regional cost differences
- Definition of occupational immobility
- Logical chain of reasoning to show the problems of occupational immobility
- Explanation of how factor immobility contributes to market failure
- Outlining the solutions to geographical immobility
- Outlining the solutions to occupational immobility

### ASSESSMENT

Question	Learning Target	Task	Style
1	Externalities	Match the terms with the correct definitions	Matchdropdown
2	Externalities	Match the terms with the correct definitions	Matchdropdown
3	External costs/benefits	Identify the correct option(s)	Multiresponse
4	Internal costs	Identify the correct option(s)	Multiresponse
5	Externalities	Match the terms with the correct definitions	Matchdropdown
6	Imperfect information	Identify the correct answer	Multichoice
7	Merit good	Identify the correct answer	Multichoice
8	Marginal social cost	Using the table calculate the correct answer	Multichoice
9	Marginal social benefit	Using the numbers calculate the correct answer	Multichoice
10	Negative production externality	Match the correct labels to the curves	Matchdropdown
11	Externalities	Complete the step by step process to analysing externalities	Matchdropdown
12	Deadweight loss	Using the graph identify the deadweight loss	Multichoice
13	Deadweight loss	Using the graph identify the deadweight loss	Multichoice
14	Deadweight loss	Using the graph identify the deadweight loss	Multichoice
15	Externality diagrams	Match the externality to the correct graph	Matchdropdown

Unit 4: Market Imperfections - CONTINUED >

## Unit 4: Market Imperfections

### Inequality

Candidates should understand that an individual's ability to consume depends upon their income and wealth and that an unequal distribution of income and wealth may result in an unsatisfactory allocation of resources.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Inequality

Wealth

Income

Consumption

Market failure

Misallocation of resources

#### CONTENT:

- Reinforcing the logic behind a flow and a stock in terms of income and wealth
- Defining and distinguishing between an equal and unequal distribution of income and wealth
- Presentation of a bar chart to show the unequal distribution of income and wealth in the UK
- Outlining the importance of wealth and income in consumption decisions
- Outlining three consequences of low levels of consumption
- Logical chain of reasoning behind why inequality in the distribution of income and wealth can cause market failure

### Imperfect Information

Candidates should understand the significance of information for economic decision making and how imperfect information can lead to market failure.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Perfect information

Imperfect information

Asymmetric information

Market failure

The market for lemons

George Akerlof

Adverse selection

Moral hazard

#### CONTENT:

- Highlighting that majority of economic theories run on the basis of perfect information
- The economic benefits of perfect information for the economy
- Definition of imperfect information
- Logical chain of reasoning behind why the presence of imperfect information can lead to market failure
- Example of imperfect information in the advertising world
- Definition of asymmetric information
- Identifying the problem of adverse selection in a market making reference to the 1970's market for lemons example by George Akerlof
- Illustration of how markets in which sellers have more information than buyers creates market failure
- Illustration of how markets in which buyers have more information than sellers creates market failure
- Example of moral hazard using the health insurance market
- Example of moral hazard in the financial sector
- Example of moral hazard in the insurance market

9.1	Introduction to Market Failure
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## Unit 5: The Environment

### Environmental Functions and Models

Candidates should be able to explain the three functions of the environment and be able to use basic models to evaluate the environmental effects of economic activity and growth.

**LEARNING OBJECTIVE**

#### DEFINITIONS COVERED:

Resources

Environmental Kuznets Curve

Sustainable development

Environmental externalities

Negative production externalities

Negative consumption externalities

Environmental degradation

#### CONTENT:

- Introducing the three functions of the environment – provider of resources, provider of amenities and absorber of waste.
- Explanation that the production of economic activities creates negative production and consumption externalities on the environment
- Graphical representation of a negative production externality
- Graphical representation of a negative consumption externality
- Linking economic externalities to environmental externalities
- Introducing the logical chain of reasoning behind how economic growth can raise the propensity of individuals care for the environment
- Introducing the concept of the Kuznets Curve – as individuals get richer awareness for the environment grows at first
- Definition of the economic problem
- Definition of sustainable development
- Outlining the benefits of sustainable development in terms of the environment
- Identifying the position of some countries on the Kuznets Curve

### ASSESSMENT

Question	Learning Target	Task	Style
1	Geographical immobility	Identify the correct factor(s)	Multiresponse
2	Immobility solutions	Identify the correct solution(s)	Multiresponse
3	Occupational immobility	Identify the correct industries	Multiresponse
4	Factor immobility	Identify the correct factor(s)	Multiresponse
5	Factor immobility	Identify the correct point on the PPF	Multiresponse
6	Geographical immobility	Identify the correct factor(s)	Multiresponse
7	Factor immobility	Identify the correct answer	Multichoice
8	Market imperfections	Match the terms to the correct definitions	Matchdropdown
9	Income inequality	Identify the correct answer(s)	Multiresponse
10	Occupational immobility	Using the numbers calculate the correct answer	Multichoice
11	Income inequality	Complete the logical chain of reasoning	Matchdropdown
12	Imperfect information	Identify the correct answer	Multichoice
13	Imperfect information	Complete the logical chain of reasoning	Matchdropdown
14	Adverse selection	Complete the logical chain of reasoning	Matchdropdown
15	Asymmetrical information	Assess whether the statement is true or false	True/false

Unit 5: The Environment - CONTINUED >

## Unit 5: The Environment

### Environmental Policy Effectiveness

#### LEARNING OBJECTIVE

Candidates should be able to explain the three functions of the environment and be able to use basic models to evaluate the environmental effects of economic activity and growth.

#### DEFINITIONS COVERED:

Government intervention

Regulation

Tradeable pollution permits

Environmental externalities

Public and private partnerships

Indirect taxation

Regulation

Subsidies

Incomplete information

Government expenditure

#### CONTENT:

- List of the types of policies government's use to intervene in the economy
- Outlining which policies can go towards protecting the environment
- Explanation of how indirect taxes can be used to internalise an externality
- Example of how fuel duty can be used to reduce pollution emissions
- Example of how environmental subsidies can be used to encourage more environmentally friendly production processes
- Example of how regulation methods can be used to prevent environmentally harmful economic activity
- Summary of the pros and cons of using regulation to curb environmental problems
- Establishing the link between incomplete information and the production of negative externalities
- Example of how government expenditure plans can curb environmental problems, making reference to The Forestry Commission
- Questioning the efficiency of these government expenditure plans
- Definition of a public-private partnership
- Example of how public-private partnerships can curb environmental problems, making reference to PFI
- Summary of the pros and cons of using PPP to curb environmental problems

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Functions of the environment	Identify the correct functions	Multiresponse
2	Private costs	Identify the correct answer	Multichoice
3	Pollution	Identify the correct graph	Multichoice
4	Marginal costs/benefits	Identify the correct graph	Multichoice
5	Economic growth	Complete the logical chain of reasoning	Matchdropdown
6	Environment Kuznets Curve	Fill the blanks to complete the sentence	Multichoice
7	Sustainable development	Identify the correct answer	Multichoice
8	Sustainable development	Identify the correct answer(s)	Multiresponse
9	Fuel tax	Identify the correct statements	Multichoice
10	Subsidies	Fill the blanks to complete the sentence	Multichoice
11	Regulation	Identify the consequences	Multiresponse
12	Environment Kuznets Curve	Identify the correct point on the Kuznets Curve	Multichoice
13	Free-rider problem	Assess whether the statement is true or false	True/false
14	Environmental degradation	Identify the important cost-effective policy	Multichoice
15	Public goods	Identify the correct answer	Multichoice

9.1 Introduction to Market Failure

9.2 Public Goods

9.3 Externalities

9.4 Market Imperfections

9.5 The Environment

**LEARNING  
OBJECTIVE**

A 25 question assessment to help reinforce and develop students' understanding and knowledge of the basic concepts covered in Module 9 surrounding market failure.

**MODULE 9  
EMA****QUESTIONS  
COVER:**

- **UNIT 1:**  
Introduction to  
Market Failure
- **UNIT 2:**  
Public Goods and  
the Tragedy of the  
Commons
- **UNIT 3:**  
Externalities
- **UNIT 4:**  
Immobility, Inequality  
and Imperfect  
Information
- **UNIT 5:**  
The Environment

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Market failure	Match the terms to the correct definitions	Matchdropdown
2	Market failure	Match the terms to the correct definitions	Matchdropdown
3	Market failure	Match the terms to the correct definitions	Matchdropdown
4	Market failure	Match the terms to the correct definitions	Matchdropdown
5	Public goods	Identify the correct answer	Multichoice
6	Complete market failure	Identify the correct answer(s)	Multiresponse
7	Partial market failure	Identify the correct answer(s)	Multiresponse
8	Market failure	Using the table match the product to the correct market failure	Matchdropdown
9	Merit good	Match the labels to the correct part of the graph	Matchdropdown
10	Value judgement	Identify the correct answer	Multichoice
11	Externality graphs	Match the externality description to the correct graph	Matchdropdown
12	Externalities	Using the graph identify the type of externality it is showing	Multichoice
13	Externalities	Identify the correct externality	Multiresponse
14	Marginal external cost	Identify the correct definition	Multichoice
15	The environment	Using the graph identify what it depicts	Multichoice
16	Market failure	Using the graph calculate the level of market failure	Multichoice
17	Positive externalities	Identify the correct statement	Multichoice
18	State provision	Identify the correct statement	Multichoice
19	Complete market failure	Identify the correct statement	Multichoice
20	Market failure	Using the data match the statements to the correct outcomes	Matchdropdown
21	Negative production externalities	Using the graph identify the correct statement	Multiresponse
22	Demerit goods	Identify the correct statement(s)	Multiresponse
23	Negative production externalities	Identify the correct statement(s)	Multiresponse
24	Non-pure public goods	Identify the correct statement	Multiresponse
25	Asymmetric information	Identify the correct answer	Multichoice

**Introduction to Government Intervention**

**Introduction to Government Intervention**

Candidates should understand the reasons for government intervention in markets.

**LEARNING OBJECTIVE**

**DEFINITIONS COVERED:**

Market failure

Government intervention

Misallocation of resources

**CONTENT:**

- Identifying the main reasons for government intervention in markets
- Explanation of the aims and objectives of government intervention for economic issues
- Explanation of the aims and objectives of government intervention for political issues
- Explanation of the aims and objectives of government intervention for miscellaneous issues i.e. military issues
- List of the some of the most common forms of government intervention in markets that prevalently suffer from market failure – merit goods, public goods and monopolistic markets

**Unit 1: Indirect Taxation and Subsidies**

**Indirect Taxation**

Candidates should be able to use basic economic models to analyse and evaluate the use of indirect taxation within markets.

**LEARNING OBJECTIVE**

**DEFINITIONS COVERED:**

Taxes

Subsidies

Market failure

Indirect taxation

Unit tax

Ad valorem tax

MPC curve

Deadweight loss

PED

Tax revenue

Demerit good

Externality

Negative production externality

Internalising the externality

**CONTENT:**

- Explanation of the motives behind government intervention
- Defining and distinguishing between indirect taxes and subsidies
- Defining and distinguishing between a unit tax and an ad valorem tax
- Graphically illustrating that unit taxes lead to parallel shifts in the supply curve
- Emphasising that the vertical distance between the supply curves is equal to the value of the tax
- Graphically representing the tax burden on consumers and producers
- Explaining the impact of PED on the effectiveness of a tax
- Graphically showing the level of tax revenue accruing to the government
- Using the intuition of an indirect tax to remove a negative production externality and deadweight loss triangle
- Emphasising that to remove an externality an indirect tax needs to be imposed equal to the value of the externality
- Using the intuition of an indirect tax to remove the excess production of a demerit good
- Explaining what is meant by the term 'internalising an externality'
- Applied example of internalising externalities through congestion charges

Introduction to Government Intervention

<b>10.1</b>	Indirect Taxation and Subsidies
<b>10.2</b>	Price Controls, Pollution Permits and the Extension of Property Rights
<b>10.3</b>	State Provision, Competition Policy and Regulation
<b>10.4</b>	Government Failure
<b>10.5</b>	Cost-Benefit Analysis

## Subsidies

### LEARNING OBJECTIVE

Candidates should be able to use basic economic models to analyse and evaluate the use of subsidies within markets

### DEFINITIONS COVERED:

- Subsidies
- Market failure
- Government intervention
- Deadweight loss
- Imperfect information
- MPC curve
- Positive production externality
- Merit good

### CONTENT:

- Explanation of the motives behind government intervention
- Definition of subsidies
- Distinguishing the effects that indirect taxes and subsidies have on the supply curve
- Graphical representation of impact of a subsidy on the supply curve
- Graphically illustrating how a subsidy can cause production increases for a good releasing a positive production externality
- Graphically illustrating how a subsidy can cause production increases for a merit good
- Evaluating the issues with a subsidy being imposed on a market
- Graphically showing how a subsidy cost can be calculated
- Breaking down the beneficiaries of subsidy
- Emphasising the importance of the quality of information available to governments when intervening in the market

### ASSESSMENT

Question	Learning Target	Task	Style
1	Indirect tax	Identify the correct graph	Multichoice
2	Taxation/Subsidies	Match the terms with the correct descriptions	Matchdropdown
3	Ad valorem tax	Using the graph identify the correct answer	Multiresponse
4	Market failure	Put the steps of government intervention in chronological order	Matchdropdown
5	Market failure	Put the steps of government intervention in chronological order	Matchdropdown
6	Indirect tax	Identify the correct statement	Multiresponse
7	Subsidies	Identify the correct graph	Multichoice
8	Indirect tax	Identify the correct graph	Multichoice
9	Market failure	Put the steps of government intervention in chronological order	Matchdropdown
10	Taxation/Subsidies	Match the terms to the correct graph	Matchdropdown
11	Subsidies	Match the terms to the correct graph	Matchdropdown
12	Indirect tax	Match the descriptions to the correct graph	Matchdropdown
13	Merit goods	Identify the correct answer	Multichoice
14	Indirect tax	Identify the correct answer	Multiresponse
15	Government failure	Assess whether the statement is true or false	True/false

## Unit 2: Price Controls, Pollution Permits and the Extension of Property Rights

### Price Controls

### LEARNING OBJECTIVE

Candidates should be able to use basic economic models to analyse and evaluate the use of price controls within markets.

#### DEFINITIONS COVERED:

Price control

Maximum price

Minimum price

Wage cap

Minimum alcohol pricing

Minimum wage

Deadweight loss

Black market

Imperfect information

#### CONTENT:

- Definitions of price control, maximum price and minimum price
- Graphical representation of a maximum price implemented below the prevailing market price
- Explaining the motives behind the government setting a maximum price
- Explanation that implementing a maximum price above the market price will leave the market unchanged
- Applied example of a maximum price – wage cap
- Graphical representation of a minimum price implemented above the prevailing market price
- Explaining the motives behind the government setting a minimum price
- Explanation that implementing a minimum price below the market price will leave the market unchanged
- Applied example of a minimum price – minimum alcohol pricing
- Outlining the issues with price controls – deadweight loss, black market and imperfect information
- Showing that some price controls prevent beneficial exchanges being made and results in a deadweight loss
- Definition of a black market
- Showing how price controls can lead to the formation of a black market
- Emphasising the importance of the quality of information available to governments when intervening in the market



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## Pollution Permits

Candidates should be able to use basic economic models to analyse and evaluate the use of pollution permits within markets.

### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Pollution permits  
Incentive  
Kyoto Agreement  
Externality  
Negative production externality

#### CONTENT:

- Introducing the logical chain of reasoning behind how a pollution permit works
- Detailed numerical example of how two companies trade pollution permits
- Outlining what the Kyoto Agreement is and what it permitted
- Outlining the issues with pollution permits – monitoring problems, administration costs and distribution problems

## Extension of Property Rights

Candidates should understand how governments may use the extension of property rights to correct market failure.

### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Property rights  
Coase Theorem  
Transaction costs  
Enforcement  
Wealth

#### CONTENT:

- Explanation of the issues created when there are poorly defined property rights
- Definition of the Coase Theorem
- Explanation of the efficiency created when property rights are clearly defined
- Outlining that the efficient outcome is always reached regardless of who is awarded the property rights
- Explaining the factors behind why governments do not extend property rights to everything – transaction costs, initial ownership issues and enforcement problems

## Unit 2: Price Controls, Pollution Permits and the Extension of Property Rights

### Buffer Stock Schemes

### LEARNING OBJECTIVE

Candidates should be able to use basic economic models to analyse and evaluate the use of buffer stock schemes within markets.

#### DEFINITIONS COVERED:

Buffer stock scheme

Target price

Commodity market

Inelastic

Price band

Common agricultural policy

#### CONTENT:

- Definition of a buffer stock scheme
- Logical chain of reasoning behind how commodity markets operate
- Graphically illustrating commodity markets through a demand and supply framework
- Explaining how buffer stock schemes work in an agricultural setting
- Graphical analysis of a buffer stock scheme imposed on an agricultural market
- Introducing the concept of price ceilings and price floors when analysing the economic impact of buffer stock schemes
- Outlining the issues with buffer stock schemes – deadweight loss, black market and imperfect information
- Applied example of a buffer stock scheme and evaluating its impact – Common Agricultural Policy (CAP)

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Market failure	Match the terms with the correct definitions	Matchdropdown
2	Price controls	Identify the correct graph	Multichoice
3	Minimum wage	Using the graph calculate the correct answer	Multichoice
4	Maximum price	Identify the correct statement	Multichoice
5	Deadweight loss	Identify the correct graph	Multichoice
6	Black markets	Assess whether the statement is true or false	True/false
7	Minimum price	Put the steps in chronological order	Matchdropdown
8	Pollution permits	Identify the correct answer	Multichoice
9	Pollution permits	Using the data calculate the correct answer	Multichoice
10	Pollution permits	Identify the correct statement	Multichoice
11	Property rights	Complete the logical chain of reasoning	Matchdropdown
12	Property rights	Correctly match the consumers with the correct benefits	Matchdropdown
13	Coase theorem	Identify the correct answer	Multichoice
14	Property rights	Identify the correct answer	Multiresponse
15	Coase theorem	Correctly match the consumers with the correct benefits	Matchdropdown

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## Unit 3: State Provision, Competition Policy and Regulation

### State Provision

Candidates should be able to use basic economic models to analyse and evaluate the use of state provision within markets.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

State provision  
Mixed economy  
Public goods  
Free-rider problem  
Merit goods  
Natural monopoly  
Policy motives  
Privatisation  
Nationalisation

#### CONTENT:

- Definition of state provision
- Definition of a mixed economy
- Graphical explanation of why state provision is needed in some markets
- Explanation of state provision for public goods, making reference to the free-rider problem
- Applied example of public goods provision for the national defence sector
- Explanation of state provision for merit goods, making reference to positive externalities created
- Applied example of merit goods provision for the education sector
- Explanation of state provision for natural monopolies, making reference to the restriction of monopoly power
- Applied example of a natural monopoly formation from the state – National Rail
- Introducing the political frictions and pressures created regarding nationalisation and privatisation
- Outlining the issues with state provision – inefficiencies, discouraging innovation and invention and poor distribution of resources

### Competition Policy

Candidates should understand the general principles of UK competition policy and the costs and benefits of competition policy.

#### LEARNING OBJECTIVE

#### DEFINITIONS COVERED:

Competition policy  
Price competition  
Consumer sovereignty  
Monopoly  
Anti-competitive practices  
Competition and Markets Authority  
Mergers  
Acquisitions  
Price fixing  
Predatory pricing  
Barriers to entry  
Privatisation  
State aid

#### CONTENT:

- Defining what is meant between the terms price competition and consumer sovereignty
- Explanation of how competition policy is used to primarily inject more competition in an industry by removing monopoly power
- Explanation of the techniques used to prevent the formation of monopolies – prevent mergers and acquisitions
- Explanation of the techniques used to break up existing monopolies – ordering sales or parts of business
- Explanation of the techniques to monitor and regulate monopolies – combat monopoly power abuse
- Outlining the anti-competitive practices that are prohibited by the government – price fixing, predatory pricing and restrictive contracts
- Explanation of the practices that government's encourage – barrier to entry removal, grants, privatisation and free trade policies
- The role of the competitions and markets authority on the European stage

Unit 3: State Provision, Competition Policy and Regulation - CONTINUED >

**Unit 3: State Provision, Competition Policy and Regulation**

**Regulation**

Candidates should be able to use basic economic models to analyse and evaluate the use of regulation within markets.

**LEARNING OBJECTIVE**

**DEFINITIONS COVERED:**

- Regulation
- Government intervention
- Legislation
- Imperfect information
- Society's welfare
- Regulatory capture
- Ring-fencing
- Capital limits
- Red tape

**CONTENT:**

- Definition of regulation
- A summary of the different forms of regulation – competition regulations, age restrictions, product standards, health and safety regulations, employment law and environmental regulation
- Logical chain of reasoning to explain how governments use regulation to remedy perceived flaws in the economic system
- Case study of the 2008 financial crisis to outline regulation measures put in place to prevent future financial crises
- Outlining the main problems with regulation – imperfect information, excessive regulation and ineffective enforcement

**Public-Private Partnerships**

Candidates should be able to analyse the costs and benefits behind governments instigating public-private partnerships.

**LEARNING OBJECTIVE**

**DEFINITIONS COVERED:**

- Public-Private partnership
- Public sector
- Private sector
- Private Finance Initiative (PFI)
- Partial Privatisation
- Government oversight

**CONTENT:**

- Definition of a Public-Private partnership
- Example to show how a Public-Private partnership works – Building of a new hospital using PFI
- Detailed explanation of the benefits of a Public-Private partnership – efficiency benefits, delegate risk and lack of upfront costs
- Detailed explanation of the costs of a Public-Private partnership – incentive problems, badly written contracts and interest rate divergence
- Introducing the concept of partial privatisation
- Example of partial privatisation in the UK – Royal Mail

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Intervention techniques	Match the terms to their correct description	Matchdropdown
2	State provision	Identify the correct graph	Multichoice
3	State provision	Identify the correct industries	Multiresponse
4	Public goods	Identify the correct statement	Multichoice
5	State provision	Assess whether the statement is true or false	True/false
6	Regulation techniques	Match the regulation terms with their correct description	Matchdropdown
7	Regulation	Match the types of regulation with their specific measure	Matchdropdown
8	Regulation	Complete the logical chain of reasoning	Matchdropdown
9	Regulatory capture	Identify the correct statement	Multichoice
10	Regulation	Assess whether the statement is true or false	True/false
11	Competition policies	Identify the correct policies	Multiresponse
12	Mergers	Complete the logical chain of reasoning	Matchdropdown
13	Competition policies	Identify the ineffective policy	Multichoice
14	Competition and Markets Authority	Assess whether the statement is true or false	True/false
15	Monopoly policies	Identify the correct policy response	Multichoice

Introduction to Government Intervention

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**Unit 4: Government Failure**

**Government Failure**

Candidates should understand that government failure occurs when government intervention in the economy leads to a misallocation of resources.



**DEFINITIONS COVERED:**

- Government failure
- Law of unintended consequences
- Policy myopia
- Imperfect information
- Administration costs

**CONTENT:**

- Explanation that governments intervene in markets in order to improve society's welfare
- Definition of government failure
- Explanation of why government intervention may lead to failure – law of unintended consequences, administration costs and conflicting objectives.
- Example of government failure – Department of Work and Pensions
- Emphasising the importance of government failure when evaluating the impact of government intervention

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Government subsidy	Complete the logical chain of reasoning behind a subsidy	Matchdropdown
2	Government failure	Identify examples of government failure	Multiresponse
3	Government failure	Match the terms with the correct definitions	Matchdropdown
4	Government failure causes	Identify the correct answer	Multichoice
5	Government failure	Assess whether the statement is true or false	True/false
6	Government failure	Identify the correct answer	Multichoice
7	Government failure causes	Identify the correct reason(s)	Multiresponse
8	Government failure	Assess whether the statement is true or false	True/false
9	Social welfare	Identify the correct option	Multichoice
10	Merit goods	Identify the correct response	Multichoice

## Unit 5: Cost-Benefit Analysis

### Cost-Benefit Analysis

### LEARNING OBJECTIVE

Candidates should understand the concept of cost-benefit analysis and evaluate its usefulness in assisting the process of making major economic decisions.

#### DEFINITIONS COVERED:

Cost-Benefit analysis

Discounting

Net present value

Discount rate

Private costs/benefits

Social costs/benefits

#### CONTENT:

- Definition of cost-benefit analysis
- Introducing the intuition behind cost-benefit analysis
- Showing social costs equal the combination of private and external costs
- Showing social benefits equal the combination of private and external benefits
- A detailed example of cost-benefit analysis applied to the decision of the government to build a new airport
- Explanation of how to assign a value to an external cost/benefit
- Introducing the concept of discounting - Money received in the future is not as valuable as money received now
- Definition of the net present value
- Incorporating the present value into the cost-benefit analysis example
- Outlining the problems of cost-benefit analysis – estimating externality difficulties, changing discount rates and financial costs of CBA

#### ASSESSMENT

Question	Learning Target	Task	Style
1	Cost-Benefit analysis	Match the correct CBA with the following examples	Matchdropdown
2	Social benefits	Fill in the blanks to complete the statement	Multiresponse
3	External costs	Identify the external costs	Multichoice
4	Cost-Benefit analysis	Identify the correct answer	Multichoice
5	Cost-Benefit analysis	Fill in the blanks to complete the statement	Multichoice
6	Cost-Benefit analysis	Assess whether the statement is true or false	True/false
7	Cost-Benefit analysis	Assess whether the statement is true or false	True/false
8	Net present value	Using the table identify the correct statement	Multichoice
9	Discounting	Identify the correct statement	Multichoice
10	Cost-Benefit analysis	Complete the logical chain of reasoning	Matchdropdown

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**LEARNING  
OBJECTIVE**

A 25 question assessment to help reinforce and develop students' understanding and knowledge of the basic concepts covered in Module 10 surrounding methods of government intervention.

**MODULE 10  
EMA**

**QUESTIONS  
COVER:**

- **UNIT 1:**  
Taxation and Subsidies
- **UNIT 2:**  
Price Controls, Pollution Permits and the Extension of Property Rights
- **UNIT 3:**  
State Provision, Competition Policy and Regulation
- **UNIT 4:**  
Government Failure
- **UNIT 5:**  
Cost-Benefit Analysis

**ASSESSMENT**

Question	Learning Target	Task	Style
1	Government intervention	Match the form of intervention to the correct market failure	Matchdropdown
2	Government intervention	Match the terms with the correct descriptions	Matchdropdown
3	Government intervention	Match the terms with the correct descriptions	Matchdropdown
4	Government intervention	Match the curves with the correct form of intervention	Matchdropdown
5	Subsidies	Match the correct descriptions to the graphs	Matchdropdown
6	Indirect taxes	Identify the tax that yields the most revenue	Multichoice
7	Subsidies	Identify the correct graph	Multiresponse
8	Indirect taxes	Identify the correct answer	Multichoice
9	Price controls	Identify the correct graph	Multichoice
10	Maximum price	Using the diagram calculate the correct answer	Multichoice
11	Minimum price	Using the diagram calculate the correct answer	Multichoice
12	Buffer stock schemes	Identify the correct graph	Multiresponse
13	Subsidy burden	Identify the correct values	Multichoice
14	Demerit goods	Identify the correct answer	Multichoice
15	Pollution permits	Identify the false statement	Multichoice
16	State provision	Identify the correct statement	Multichoice
17	Regulation	Assess whether the statement is true or false	True/false
18	Nationalisation	Complete the logical chain of reasoning	Matchdropdown
19	Labour immobility	Identify the correct statement	Multichoice
20	Market failure	Using the table match the example with the market failure	Multichoice
21	Demerit goods	Using the numbers calculate the correct answer	Multiresponse
22	Government intervention	Identify the correct statement	Multichoice
23	Buffer stock schemes	Identify the correct statement	Multichoice
24	Market failure	Identify the correct match	Multichoice
25	Unit taxes	Using the diagram identify the correct answer	Multichoice

