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A-Level · Economics

ECO.MAC17 Taxation: Types, Principles and the Incidence of Tax

AQA 7136 · Calculators not allowed · about 60 minutes

Total Marks

Name: ________________________________ Date: ____ / ____ / ______

Answer all questions in full sentences where required. Show any working for calculations and draw any required diagrams carefully. Time guidance: 60 minutes.

1 Multiple choice on tax classification in a UK context: which of the following is an example of an indirect tax?

- ☐ Income tax
- ☐ Council tax
- ☐ Value added tax (VAT)
- ☐ National Insurance contributions

(Total for Question 1 is 1 mark)

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2 Define a 'direct tax' in the context of public finance and give one UK example of a direct tax.

(Total for Question 2 is 2 marks)

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3 Define an 'indirect tax' in public finance and give one UK example of an indirect tax.

(Total for Question 3 is 2 marks)

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4 Distinguish between a progressive and a regressive tax system, naming one practical implication for income distribution in a UK context.

(Total for Question 4 is 3 marks)

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5 State the canon of tax 'equity' as applied to designing a UK tax system and give one short reason why equity matters for public acceptance of taxes.

(Total for Question 5 is 2 marks)

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6 State the canon of tax 'certainty' and explain briefly how certainty reduces administration costs for taxpayers and the government.

(Total for Question 6 is 2 marks)

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7 State the canon of tax 'convenience' and give one UK example of a mechanism that improves convenience for taxpayers.

(Total for Question 7 is 2 marks)

8 Define 'tax incidence' as used in the analysis of a specific per-unit tax on a good sold in a UK market, naming whether incidence refers to statutory liability or economic burden.

(Total for Question 8 is 2 marks)

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9 Diagram question: Draw a supply and demand diagram for a UK market for a commodity where demand is relatively inelastic and supply is relatively elastic. Show an imposed per-unit tax of GBP 1 on producers. On your diagram, indicate the pre-tax equilibrium, the shift caused by the tax, the new equilibrium, and label clearly the portions of the tax borne by consumers and producers.

Figure (to be drawn): *Student should draw price vertical and quantity horizontal. Initial downward sloping demand curve D relatively steep (inelastic). Initial upward sloping supply S relatively flat (elastic). A vertical upward shift of supply by the per-unit tax to S+tax. Label initial equilibrium E0 (P0,Q0) and new equilibrium E1 (P1 to consumers, Q1). Identify price received by producers (Pp) and price paid by consumers (Pc) such that Pc - Pp = GBP 1. Shade or mark larger consumer share because demand is inelastic.*

(Total for Question 9 is 5 marks)

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10 Explain, using elasticities, why a per-unit tax on a good with perfectly elastic supply but inelastic demand leads to most of the tax burden falling on consumers in a UK market example.

(Total for Question 10 is 3 marks)

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11 State briefly what the Laffer curve suggests about the relationship between marginal tax rates and tax revenue, and name one behavioural response at high marginal rates that can reduce revenue.

(Total for Question 11 is 2 marks)

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12 Explain the difference between tax avoidance and tax evasion in the UK context and state one policy measure that can reduce avoidance or evasion.

(Total for Question 12 is 2 marks)

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13 Evaluate the view that the government should rely more on indirect taxes rather than direct taxes to raise additional revenue. In your answer, consider efficiency, equity, the canons of taxation, the incidence of taxes, behavioural responses including the Laffer curve implications, and distributive effects. Use diagrams where appropriate and reach a supported judgement.

(Total for Question 13 is 25 marks)

Mark scheme · ECO.MAC17 Taxation: Types, Principles and the Incidence of Tax

Question 1

- **B1** selecting 'Value added tax (VAT)', which is collected on transactions and levied on spending, therefore an indirect tax
- **Answer: Value added tax (VAT).**

Question 2

- **B1** a direct tax is levied on the income or wealth of an individual or firm and is paid directly to the tax authority
- **B1** example: income tax (UK), paid by individuals on earnings
- **Answer: A direct tax is charged on income or wealth and paid directly to the tax authority; example: income tax.**

Question 3

- **B1** an indirect tax is levied on transactions or goods and services and is collected by sellers who pass it to the tax authority
- **B1** example: VAT (value added tax) on goods and services sold to consumers
- **Answer: An indirect tax is charged on goods or services and collected via sellers; example: VAT.**

Question 4

- **B1** progressive tax: average tax rate rises as income rises
- **B1** regressive tax: average tax rate falls as income rises
- **B1** implication: progressive taxes (like graduated income tax bands) can reduce income inequality, while regressive taxes (for example flat-rate consumption taxes that take a larger share of low incomes) can worsen inequality
- **Answer: Progressive taxes have rising average rates with income and can reduce inequality; regressive taxes have falling average rates with income and can increase the burden on lower earners.**

Question 5

- **B1** equity: taxes should be fair in how they distribute the burden between taxpayers, often interpreted as 'ability to pay' or horizontal equity
- **B1** reason: perceiving the system as fair increases compliance and public legitimacy of the tax system
- **Answer: Equity means a fair distribution of tax burden, often based on ability to pay; fairness increases compliance and public legitimacy.**

Question 6

- **B1** certainty: taxpayers should know when, how and how much tax is to be paid
- **B1** certainty reduces time spent resolving disputes and avoids unexpected liabilities, lowering compliance and enforcement costs
- **Answer: Certainty requires clear rules on tax timing and amount; it reduces disputes and unexpected payments, lowering compliance and enforcement costs.**

Question 7

- **B1** convenience: taxes should be collected at a time and manner convenient for the taxpayer
- **B1** example: Pay As You Earn (PAYE) for income tax allows employers to withhold tax at source, making payment convenient
- **Answer: Convenience means paying tax at a convenient time and method; example: PAYE withholding makes income tax payment straightforward.**

Question 8

- **B1** tax incidence is the division of the economic burden of a tax between buyers and sellers, showing who ultimately bears the cost
- **B1** incidence refers to economic burden, which may differ from statutory liability (who legally pays the tax)
- **Answer: Tax incidence is the split of the economic burden between buyers and sellers; it is about who bears the cost economically, not just who legally pays.**

Question 9

- **M1** correctly labelled axes, initial supply S and demand D curves, and initial equilibrium point E0 with price P0 and quantity Q0
- **M1** correct shift of supply curve vertically upwards by the amount of the per-unit tax to S+tax, and new equilibrium E1 shown
- **A1** correct labelling of price paid by consumers Pc and price received by producers Pp with Pc - Pp = GBP 1 (cents awrt allowed)
- **A1** correctly shows that consumers bear the larger share of the tax burden because demand is relatively inelastic compared with supply
- **B1** brief explanation accompanying the diagram: with relatively inelastic demand, quantity falls only a little so consumers tolerate a higher price, leaving producers to absorb less of the tax; explanation consistent with the labelled splits

Question 10

- **M1** with perfectly elastic supply, suppliers will not accept a lower net-of-tax price, so the supply curve is horizontal and any tax must raise the price paid by consumers by nearly the full amount
- **A1** with inelastic demand, quantity demanded changes little when price rises, so consumers end up paying most of the tax as higher prices
- **A1** therefore economic incidence falls mainly on consumers: producers cannot pass on less than the tax because supply is perfectly elastic, and consumers cannot avoid buying much because demand is inelastic
- **Answer: Perfectly elastic supply forces the industry to accept a fixed net price, so the tax appears as a higher consumer price; inelastic demand means quantity changes little, so consumers bear most of the tax burden.**

Question 11

- **B1** Laffer curve suggests tax revenue rises with tax rates up to a point, beyond which higher rates reduce revenue
- **B1** behavioural response example: increased tax avoidance or tax evasion, or reduced labour supply or effort, which shrink the taxable base
- **Answer: The Laffer curve shows revenue increases with rates to a peak then falls; at high rates taxpayers may avoid or evade tax or work less, reducing revenue.**

Question 12

- **B1** tax avoidance uses legal methods to minimise tax liabilities within the law, while tax evasion is illegal non-payment or under-declaration of tax
- **B1** policy measure: strengthen enforcement and audits, introduce information sharing, or simplify the tax code to reduce avoidance opportunities
- **Answer: Avoidance is lawful minimising of tax; evasion is illegal non-payment. Measures include stronger enforcement and information exchange or simplification of tax rules.**

Question 13

- **Level 1** (1-5): Basic statements about direct and indirect taxes with little or no analysis. Few links to canons of taxation or incidence, and no sustained evaluation or diagram. Judgement, if present, is unsupported.
- **Level 2** (6-10): Some analysis of advantages and disadvantages of indirect versus direct taxes, including basic reference to efficiency or equity. May include a simple diagram showing incidence. Limited consideration of behavioural responses or Laffer curve, and conclusion is weakly supported.
- **Level 3** (11-15): Clear analysis of both sides with application to the canons of taxation, incidence and distributional consequences. Discusses how elasticity affects incidence and mentions avoidance/evasion. Balanced evaluation with reasoned judgement and at least one diagram or well-developed example.
- **Level 4** (16-20): Detailed analysis and developed evaluation, integrating the canons of taxation (equity, certainty, convenience, economy). Explores efficiency trade-offs, behavioural responses including Laffer curve risks, and distributional impacts with UK-relevant examples. Good use of diagrams to support points and a coherent, qualified judgement.
- **Level 5** (21-25): Comprehensive, well-structured evaluation addressing economic theory and practical policy considerations. Thorough discussion of incidence using elasticity, efficiency and administrative costs, strong appraisal of equity implications and the risk of avoidance/evasion under high rates. Weighs short-run revenue needs against long-run fairness and growth, uses diagrams and evidence effectively, and reaches a balanced, justified conclusion.
- **Indicative content:**
  - Definition and examples: direct taxes (income tax, corporation tax) versus indirect taxes (VAT, excise duties).
  - Efficiency: indirect taxes may be easier to collect and less distortionary for some bases, but can distort relative prices and consumption; discussion of excess burden and deadweight loss.
  - Equity: direct taxes allow progressive redistribution via graduated rates and allowances; indirect taxes tend to be regressive unless zero-rating or exemptions are used.
  - Canons of taxation: consideration of equity, certainty, convenience and economy for each tax type; PAYE and VAT as examples for convenience and economy.
  - Incidence: role of price elasticities of demand and supply in determining who ultimately bears the tax; diagram showing more burden on consumers when demand is inelastic.
  - Behavioural responses and Laffer curve: at high marginal direct tax rates, labour supply, avoidance and evasion may reduce the tax base; high indirect rates can also encourage avoidance evasion, black markets, or substitution.
  - Administrative and compliance costs: collection mechanisms, ease of enforcement, digitalisation and VAT fraud.
  - Short-term versus long-term effects: indirect taxes raise revenue quickly but may harm consumption and low-income households; direct taxes can be designed to be progressive but may affect incentives to work and invest.
  - Policy options to mitigate regressivity: targeted transfers, exemptions, reduced VAT on essentials, or using indirect tax revenue to fund progressive benefits.
  - Empirical and practical considerations: political acceptability, visibility of tax burden to voters, and balancing revenue, growth and equity objectives.
  - Judgement might weigh a mixed approach: greater reliance on indirect taxes can be justified for stable revenue and ease of collection, but relying too heavily risks regressivity and behavioural distortions; a balanced mix with compensatory measures is often preferable.