



ECO.MAC21 International Trade: Absolute and Comparative Advantage

AQA 7136 · Calculators not allowed · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / ____

Answer all questions. Full sentences are required for the 25-mark evaluation question only. Time guidance: 60 minutes.

- 1** Define Adam Smith's concept of absolute advantage in the context of two countries producing two goods.

(Total for Question 1 is 1 mark)

- 2** Define comparative advantage as used in Ricardo's trade theory for two countries and two goods.

(Total for Question 2 is 1 mark)

- 3** Define opportunity cost in the context of specialisation and trade between two countries.

(Total for Question 3 is 1 mark)

- 4** Production possibilities per worker per week in two fictional countries, Albion and Keta, for Wheat and Cloth:

Albion: 30 units of Wheat or 20 units of Cloth.

Keta: 10 units of Wheat or 5 units of Cloth.

Using this table, answer the following about absolute and comparative advantage and feasible terms of trade.

- (a) Which country has the absolute advantage in Wheat? Which in Cloth? (1 mark each) (2)
- (b) Calculate the opportunity cost of producing 1 unit of Cloth in each country, expressed in units of Wheat. Identify which country has a comparative advantage in Cloth. (2 marks) (2)
- (c) State a feasible terms of trade expressed as 'X Wheat for 1 Cloth' that would make both countries better off, using the opportunity costs you found. Show the numerical range and give one example rate. (2 marks) (2)

(Total for Question 4 is 6 marks)

- 5** Explain, briefly, how specialisation according to comparative advantage can increase total world output when two countries trade.

(Total for Question 5 is 2 marks)

- 6** State two key simplifying assumptions of Ricardo's comparative advantage model with two countries and two goods.

(Total for Question 6 is 2 marks)

- 7** Explain how positive transport costs between trading partners could reduce or eliminate the gains from comparative advantage.

(Total for Question 7 is 2 marks)

- 8** Explain one effect of factor immobility between countries on the practical applicability of comparative advantage.

(Total for Question 8 is 2 marks)

- 9** Diagram task: On axes labelled 'Quantity of Cloth' (horizontal) and 'Quantity of Wheat' (vertical), sketch the production possibility frontiers (PPFs) for Albion and Keta based on the worker outputs given in Question 4, then draw and label a Trading Possibility Curve (TPC) showing how mutually beneficial trade can allow a consumption point outside both individual PPFs. Indicate and label one point showing specialisation and trade that lies beyond both PPFs.

(Total for Question 9 is 5 marks)

- 10** State briefly what is meant by 'terms of trade' between two countries.

(Total for Question 10 is 1 mark)

- 11** Explain why absolute advantage is not required for two countries to gain from trade; use the concept of comparative advantage in your explanation.

(Total for Question 11 is 2 marks)

- 12** Evaluate the extent to which Ricardo's theory of comparative advantage justifies free trade in practice between countries. In your answer, analyse the main strengths of the theory and consider realistic limitations and possible counterarguments. Use diagrams where helpful and reach a supported judgement. (25 marks)

(Total for Question 12 is 25 marks)

Mark scheme · ECO.MAC21 International Trade: Absolute and Comparative Advantage

Question 1

- **B1** a country has an absolute advantage in producing a good when it can produce more of that good with the same resources, or produce the same amount using fewer resources, than another country
- **Answer: A country produces more of a good with the same resources, or the same with fewer resources, than another country.**

Question 2

- **B1** a country has a comparative advantage in producing a good if it can produce that good at a lower opportunity cost than the other country
- **Answer: Comparative advantage is producing a good at a lower opportunity cost than another country.**

Question 3

- **B1** opportunity cost is the value of the next best alternative foregone when choosing to produce one good instead of another
- **Answer: The value of the next best alternative foregone when producing one good instead of another.**

Question 4

- (a) **B1** Albion has the absolute advantage in Wheat ($30 > 10$)
- (a) **B1** Albion has the absolute advantage in Cloth ($20 > 5$)
- (a) **Answer: Albion has absolute advantage in both Wheat and Cloth.**
- (b) **M1** opportunity cost Albion: $1 \text{ Cloth} = 30/20 = 1.5 \text{ Wheat}$; Keta: $1 \text{ Cloth} = 10/5 = 2 \text{ Wheat}$
- (b) **A1** Albion has the comparative advantage in Cloth because $1.5 \text{ Wheat} < 2 \text{ Wheat}$
- (b) **Answer: Albion: 1 Cloth costs 1.5 Wheat. Keta: 1 Cloth costs 2 Wheat. Albion has comparative advantage in Cloth.**
- (c) **M1** feasible terms must lie between the two countries' opportunity costs: between 1.5 and 2.0 Wheat per Cloth
- (c) **A1** example acceptable rate: 1.6 Wheat for 1 Cloth (or 1.75, 1.9 etc), which benefits both trading partners
- (c) **Answer: Feasible terms: between 1.5 and 2.0 Wheat per Cloth. Example: 1.6 Wheat for 1 Cloth.**

Question 5

- **M1** specialisation means each country focuses on the good for which it has the lower opportunity cost, producing more efficiently
- **A1** when they trade, both can obtain a mix of goods that would have required more resources to produce domestically, so combined output and consumption possibilities increase
- **Answer: Specialisation on the lower opportunity cost good raises each country's output in that good; trade then allows both to consume more than their individual PPFs permitted.**

Question 6

- **B1** constant returns to scale / labour is the only factor of production and has constant productivity
- **B1** no transport costs and perfect mobility of labour within countries but immobility across countries
- **Answer: Examples: constant returns to scale with labour as sole factor; no transport costs and factor immobility across countries.**

Question 7

- **M1** transport costs act like an extra cost per unit, effectively raising the domestic opportunity cost of imported goods
- **A1** if transport costs are high enough they can make imports more expensive than domestic production, so the terms of trade interval may vanish and specialisation no longer yields net gains
- **Answer: Transport costs add to trade prices, shrinking the range of mutually beneficial terms of trade; if large they can make trade unprofitable and cancel gains from specialisation.**

Question 8

- **M1** with factors immobile between countries, resources cannot move to the industries where they would be most productive under specialisation
- **A1** this can cause persistent unemployment or underutilisation in some sectors and prevent full realisation of theoretical efficiency gains from trade
- **Answer: If resources cannot move across borders to the expanding industry, specialisation may produce sectoral unemployment and reduce the real-world benefits predicted by the model.**

Question 9

- **B1** correctly labelled axes: horizontal Cloth, vertical Wheat
- **B1** both PPFs drawn as straight lines from max Cloth on x-axis to max Wheat on y-axis: Albion intercepts at 20 Cloth and 30 Wheat; Keta intercepts at 5 Cloth and 10 Wheat
- **B1** a Trading Possibility Curve (TPC) or combined consumption frontier drawn outside and to the right/top of the lower envelope of individual PPFs, showing achievable consumption combinations under trade
- **B1** a specialisation point shown where Albion specialises in Cloth or Keta specialises in Wheat (consistent with Q4) and a trade consumption point plotted beyond both PPFs
- **B1** clear labelling of PPFs, TPC and the specialisation/trade consumption point
- **Answer: Axes labelled; Albion PPF from (20,0) to (0,30); Keta PPF from (5,0) to (0,10); TPC drawn beyond individual PPFs; a labelled consumption point outside both PPFs shown.**

Question 10

- **B1** terms of trade are the rate at which goods from one country can be exchanged for goods from another, e.g. how many units of Wheat are given in exchange for one unit of Cloth
- **Answer: The rate at which goods of one country exchange for goods of another, for example Wheat per Cloth.**

Question 11

- **M1** gains from trade depend on differences in opportunity costs, not absolute output levels
- **A1** even if one country is absolutely more productive in both goods, each can still benefit by specialising in the good with the lower opportunity cost and trading
- **Answer: Trade gains come from comparative advantage: even an absolute winner in both goods can gain by specialising where its opportunity cost is lowest and trading for the other good.**

Question 12

- **Level 1** (1-5): Basic statements about comparative advantage or free trade with little application or development. Limited or no diagram use. Judgement, if any, is unsupported.
- **Level 2** (6-10): Clear explanation of comparative advantage and how it can lead to gains from trade, with some use of a PPF or trading possibility curve. Some application to real-world factors and limited evaluation of assumptions and limitations.
- **Level 3** (11-15): Detailed analysis of the theory, including diagrammatic illustration of gains from trade, and a balanced evaluation that considers several realistic limitations such as transport costs, factor immobility, distributional effects, and strategic or political economy reasons for protection. A supported conclusion is reached.
- **Level 4** (16-20): Comprehensive explanation and analysis of comparative advantage with well-drawn and integrated diagrams, strong application to real-world evidence, thorough assessment of limitations and counterarguments including dynamic gains, terms of trade issues, and market failures. Clear, well-justified judgement acknowledging nuance.
- **Level 5** (21-25): Excellent, evaluative response that synthesises theory and real-world evidence. Multiple perspectives considered, including political economy, distributional consequences, transitional adjustment costs, and empirical caveats. Diagrams are used effectively and the final judgement is precise, well-supported and balanced.
- **Indicative content:**
 - Explanation of Ricardo's comparative advantage: lower opportunity cost and gains from specialisation and trade, illustrated with a PPF or trading possibility curve.
 - Strengths: clear reasoning showing how both countries can consume beyond their PPFs, simple and powerful insight into the benefits of trade, policy implication favouring liberalised trade to maximise world output.
 - Diagrammatic support: PPFs and trading possibility curve showing specialisation and consumption beyond PPFs; labelling of terms of trade interval.
 - Limitations and counterarguments: transport and transaction costs that reduce or eliminate gains; factor immobility meaning workers and capital cannot move to growing export sectors leading to unemployment and political resistance; assumption of constant returns and single factor of production is unrealistic; presence of economies of scale, imperfect competition and dynamic comparative advantage.
 - Terms of trade concerns: small countries vs large countries, possibility of adverse terms of trade for some countries, and how bargaining power and market structure influence gains distribution.
 - Distributional effects: even if total welfare rises, some groups within countries lose out, justifying targeted protection or adjustment policies.
 - Strategic and political reasons for protection: infant industry argument, national security, environmental and labour standards, and concerns about dependence on imports for critical goods.
 - Empirical caveats: evidence that trade increases aggregate wealth but can increase inequality and require active domestic policies for retraining and compensation; historical examples where tariffs were used to develop industries.
 - Conclusion: balanced judgement which might accept that comparative advantage provides strong theoretical support for freer trade as a means to raise world welfare, but in practice trade policy needs to address real-world frictions, redistribution and strategic considerations.