

Name: _____

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IB Economics Paper 1 — Practice Exam

Instructions: Answer ONE question. Each question is worth 25 marks: part (a) 10 marks, part (b) 15 marks. Use fully labelled diagrams where relevant. In part (b), support your answer with real-world examples. Time allowed: 1 hour 15 minutes.

Time Limit: 75 minutes

[25 points] 1. Question 1 — Microeconomics: indirect taxes and elasticity.

- [10 points]** (a) Explain how the price elasticity of demand for a good determines the effect of an indirect tax on the market for that good.

- [15 points]** (b) Using real-world examples, evaluate the view that indirect taxes are the most effective way for a government to reduce the consumption of demerit goods.

- [25 points]** 2. Question 2 — Macroeconomics: monetary policy and inflation.

[10 points] (a) Explain how a central bank can use monetary policy to reduce demand-pull inflation.

- [15 points]** (b) Using real-world examples, discuss the effectiveness of monetary policy in achieving low and stable inflation.

- [25 points]** 3. Question 3 — The global economy: tariffs and protectionism.

[10 points] (a) Explain, using a diagram, the effects of a tariff on the domestic market for an imported good.

- [15 points]** (b) Using real-world examples, evaluate the arguments for and against a government adopting protectionist policies.

Answer Key

1. (a) Indicative content. Definitions (2 marks): an indirect tax is a tax on expenditure, levied on producers, that raises their costs of production; price elasticity of demand (PED) measures the responsiveness of quantity demanded to a change in price, $PED = \%Q_d \div \%P$. Diagram (4 marks): supply and demand with the supply curve shifting up (vertically) by the amount of a specific tax, S to $S + \text{tax}$; new equilibrium at a higher price paid by consumers (P_c), a lower price received by producers (P_p) and a lower quantity (Q_1); tax revenue rectangle $(P_c - P_p) \times Q_1$ shaded, with the consumer and producer shares marked. Two panels (or two demand curves) contrasting price-inelastic and price-elastic demand. Explanation (4 marks): with price-inelastic demand (steep curve, $|PED| < 1$) the quantity falls little, most of the tax is passed on to consumers as a higher price, consumer incidence is large and government revenue is high; with price-elastic demand the quantity falls substantially, producers must absorb more of the tax to avoid losing sales, producer incidence is larger and revenue is lower. The incidence is determined by PED relative to PES: the less elastic side bears more. Consequently, governments raise revenue with taxes on inelastic goods (tobacco, fuel) and use taxes on elastic goods mainly to change behaviour. Level guidance: Level 4 (9–10) requires accurate definitions, a correct and fully labelled diagram, and an explanation that links elasticity to both incidence and the size of the fall in quantity; Level 3 (6–8) has minor gaps in labelling or one strand of the explanation; Level 2 (3–5) describes the tax effect without using elasticity precisely.
- (b) Indicative content. Definitions: demerit goods are goods whose consumption is considered harmful to the individual and society and which are over-consumed in a free market, often because of negative consumption externalities or information failure; effectiveness should be judged against the goal of reducing consumption towards the socially optimal level. Diagram: negative consumption externality with MPB above MSB, market quantity Q_m above optimum Q_{opt} , welfare loss triangle; a tax shifting supply up to move quantity toward Q_{opt} . Arguments for indirect taxes: they work through the price mechanism and reduce quantity along the demand curve; they internalise the externality when set equal to the marginal external cost (Pigouvian tax); they raise revenue that can fund treatment or information campaigns; they are simple to administer. Real-world examples: Mexico's 2014 tax of one peso per litre on sugary drinks (purchases fell roughly 6 percent in year one and about 8 percent in year two, more among low-income households); the UK Soft Drinks Industry Levy of 2018, which led manufacturers to reformulate and cut sugar content before the tax even applied; tobacco duties in Australia, where repeated increases coincided with falling smoking prevalence. Arguments against / limitations: demand for addictive demerit goods is price-inelastic, so a modest tax reduces consumption only slightly and mainly raises revenue; regressive incidence on low-income households; substitution to untaxed alternatives (fruit juice, illicit cigarettes) and cross-border shopping; difficulty of measuring the external cost so the tax is set at the right level; political resistance. Alternative policies: minimum prices, advertising bans and plain packaging, age restrictions, education and information campaigns, and outright bans; these can be combined with taxes — the most successful real-world reductions in smoking used all of them together. Evaluation skeleton (CLASPP): short run vs long run (elasticity rises over time, so taxes become more effective); stakeholders (consumers, producers, government, low-income groups); assumptions (rational consumers, accurate external cost estimates); priorities (revenue vs behaviour change). Conclusion: indirect taxes are an effective and revenue-raising instrument but rarely the most effective on their own for goods with inelastic demand; they are most effective when set high enough to matter, combined with regulation and information, and when substitutes are also taxed — so the view is only partly justified. Level guidance: Level 4 (13–15) requires relevant, specific real-world

examples, balanced arguments with clear economic reasoning, and a supported judgement; Level 3 (9–12) has examples but weaker weighing or a thin conclusion; Level 2 (5–8) is one-sided or lacks real examples.

2. (a) Indicative content. Definitions (2 marks): monetary policy is the use of interest rates (and control of the money supply) by the central bank to influence aggregate demand and achieve macroeconomic objectives; demand-pull inflation is a sustained rise in the general price level caused by aggregate demand growing faster than aggregate supply, typically when the economy is at or near full employment. Diagram (4 marks): AD–AS with AD1 intersecting SRAS beyond potential output (inflationary gap), price level P1; contractionary monetary policy shifts AD left to AD2, lowering the price level to P2 and closing the gap; LRAS drawn vertical at Y_p (monetarist/new classical) or the Keynesian AS with the economy on the steep section. Explanation (4 marks): the central bank raises the policy interest rate (for example by selling government bonds in open-market operations, which reduces the money supply). Higher interest rates raise the cost of borrowing and the reward for saving, so consumption of durables and business investment fall; higher rates also attract capital inflows, appreciating the exchange rate and reducing net exports. These are components of AD, so AD shifts left, reducing the inflationary gap and the rate of increase of the price level. Mention of the transmission lag and of expectations (credible central banks anchor inflation expectations, reducing wage demands) earns the top level. Level guidance: Level 4 (9–10) requires precise definitions, a correct AD–AS diagram with the shift and gap shown, and a full transmission mechanism from the interest rate to AD components; Level 3 (6–8) omits a component of the mechanism or has a minor diagram error.

(b) Indicative content. Definitions: low and stable inflation is usually an explicit target (for example 2 percent for the ECB, Federal Reserve and Bank of England); effectiveness means achieving the target quickly, with limited side effects on output, employment and other objectives. Arguments that monetary policy is effective: it can be adjusted quickly and frequently by an independent central bank, free from the political cycle; interest rates act on all AD components at once; inflation targeting since the 1990s has been associated with lower and less volatile inflation across advanced economies; credibility anchors expectations so that small rate changes have large effects. Real-world examples: the Federal Reserve's rapid increase of the federal funds rate from near zero in March 2022 to about 5.25–5.5 percent by mid-2023, after which US CPI inflation fell from a 9.1 percent peak (June 2022) to around 3 percent by mid-2023 without the deep recession many expected; the ECB's tightening from July 2022; the Bank of England's rate rises over the same period. Contrasting cases: Turkey, where interest rates were cut in 2021–22 despite rising inflation and inflation exceeded 80 percent; Japan, where near-zero rates and quantitative easing failed for two decades to lift inflation to target, showing the limits of monetary policy in a liquidity trap. Limitations: long and variable time lags (12–24 months); the zero lower bound; cost-push inflation (energy and supply shocks in 2021–22) cannot be cured by demand policies without large output losses; conflicts with growth and employment objectives, and effects on mortgage holders and government debt costs; reliance on credibility and on the banking system passing rate changes on. Alternatives and complements: fiscal policy, supply-side policies, and exchange-rate or price controls in some emerging economies. Evaluation skeleton: distinguish demand-pull from cost-push inflation; short run vs long run; stakeholders (borrowers, savers, exporters, government); the role of central bank independence and credibility; the size and nature of the shock. Conclusion: monetary policy has proved effective against demand-driven inflation when the central bank is independent and credible, but its effectiveness is limited by lags, the zero lower bound and supply-side causes, so it works best alongside sound fiscal and supply-side policy. Level guidance: Level 4 (13–15) requires specific examples with data, balanced discussion and a justified conclusion; Level 3 (9–12) uses examples but evaluates weakly; Level 2 (5–8) is descriptive or one-sided.

3. (a) Indicative content. Definitions (2 marks): a tariff is a tax on imported goods, raising their price in the domestic market; protectionism is government policy that restricts imports to protect domestic producers. Diagram (4 marks): domestic demand and domestic supply, a horizontal world supply curve at the world price P_w , imports equal to the gap between domestic quantity demanded (Q_{d1}) and domestic quantity supplied (Q_{s1}); the tariff shifts world supply up to $P_w + t$, so domestic quantity supplied rises to Q_{s2} , quantity demanded falls to Q_{d2} and imports shrink to $Q_{d2} - Q_{s2}$; areas labelled: increase in producer surplus, government tariff revenue ($t \times \text{imports after the tariff}$), and the two deadweight-loss triangles (production inefficiency and consumption loss). Explanation (4 marks): consumers pay a higher price and buy less, so consumer surplus falls; domestic producers expand output and gain surplus; the government gains revenue; foreign producers sell less; the loss of consumer surplus exceeds the sum of producer gain and revenue, so there is a net welfare loss to the importing country — the two triangles represent resources drawn into relatively inefficient domestic production and consumption forgone. Level guidance: Level 4 (9–10) requires a correctly labelled diagram with all four welfare areas identified and an explanation of each stakeholder effect plus the net loss; Level 3 (6–8) has a correct diagram but incomplete welfare analysis.
- (b) Indicative content. Arguments for protectionism: protecting infant industries until they achieve economies of scale (South Korea's support for shipbuilding and electronics in the 1960s–80s); protecting strategic industries and national security (semiconductor and steel measures); preventing dumping and unfair competition (EU anti-dumping duties on Chinese steel); protecting employment in declining industries during structural change; correcting a persistent current-account deficit; raising revenue in developing countries with weak tax systems; responding to other countries' barriers (the US–China tariff escalation from 2018). Arguments against: the welfare loss shown in part (a) — higher prices and reduced choice for consumers, and resources kept in inefficient uses; retaliation and trade wars (China's counter-tariffs on US soybeans in 2018 cut US farm exports sharply and required large federal payments to farmers); higher costs for domestic firms that use imported inputs (the 2018 US steel and aluminium tariffs raised costs for car makers and construction, with studies estimating each steel job saved cost consumers several hundred thousand dollars); reduced competitive pressure and slower innovation; infant industries that never grow up; damage to global supply chains and to the rules-based WTO system; protection rarely fixes a current-account deficit, which reflects saving and investment. Real-world examples of liberalisation: the EU single market, ASEAN, and the growth of export-led East Asian economies. Evaluation skeleton: short run (protected jobs, revenue) vs long run (efficiency losses, retaliation); stakeholders (consumers, protected producers, exporters, foreign producers, government); the size of the country and its ability to affect world prices; whether the policy is temporary and conditional (infant-industry success stories) or permanent; alternatives such as targeted subsidies, retraining and adjustment assistance that achieve the same goals with smaller welfare losses. Conclusion: a justified judgement, for example that protection can be defended in narrow, temporary cases — genuine infant industries with credible sunset clauses, national security, and anti-dumping — but that broad or permanent protection imposes costs on consumers and downstream producers that usually exceed the benefits and invites retaliation, so free trade with domestic adjustment support is the better default. Level guidance: Level 4 (13–15) requires specific, accurate real-world examples on both sides, economic reasoning that uses the welfare analysis, and a reasoned conclusion; Level 3 (9–12) has examples but limited weighing; Level 2 (5–8) lists arguments without evaluation.

Worked Solutions

Question 1. (a) Indicative content. Definitions (2 marks): an indirect tax is a tax on expenditure, levied on producers, that raises their costs of production; price elasticity of demand (PED) measures the responsiveness of quantity demanded to a change in price, $PED = \%Q_d \div \%P$. Diagram (4 marks): supply and demand with the supply curve shifting up (vertically) by the amount of a specific tax, S to $S + tax$; new equilibrium at a higher price paid by consumers (P_c), a lower price received by producers (P_p) and a lower quantity (Q_1); tax revenue rectangle ($P_c - P_p$) $\times Q_1$ shaded, with the consumer and producer shares marked. Two panels (or two demand curves) contrasting price-inelastic and price-elastic demand. Explanation (4 marks): with price-inelastic demand (steep curve, $|PED| < 1$) the quantity falls little, most of the tax is passed on to consumers as a higher price, consumer incidence is large and government revenue is high; with price-elastic demand the quantity falls substantially, producers must absorb more of the tax to avoid losing sales, producer incidence is larger and revenue is lower. The incidence is determined by PED relative to PES: the less elastic side bears more. Consequently, governments raise revenue with taxes on inelastic goods (tobacco, fuel) and use taxes on elastic goods mainly to change behaviour. Level guidance: Level 4 (9–10) requires accurate definitions, a correct and fully labelled diagram, and an explanation that links elasticity to both incidence and the size of the fall in quantity; Level 3 (6–8) has minor gaps in labelling or one strand of the explanation; Level 2 (3–5) describes the tax effect without using elasticity precisely.

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