H2 Question 1: The Economics of Tea
Suggested Answers

(a)	**Compare the volume and value of Kenyan tea exports from 2020 to 2024.**	**[2]**

- **Similarity:** The volume and of value of Kenyan tea exports have both risen from 2020 to 2024. **[1]**
- **Difference:** The value of Kenyan tea exports rose consistently throughout, but the volume of tea exports experienced a fall in 2022. **[1]**

OR

The value of Kenya tea exports increased more rapidly/at a faster rate compared to the volume of Kenyan tea exports during the same time period. **[1]**

(b)	**Using the concept of price elasticity of demand, explain how Figure 1 and 2 can explain the rise in Kenyan tea export revenue from 2022 to 2023.**	**[5]**

- Export revenue is determined by the product of the price of exports and the quantity of exports sold. **[1]** An increase in export revenue from 2022 to 2023 could be due to a rise in price and/or quantity (volume) of Kenyan tea sold.
- Figure 1 shows an increase in the volume of Kenyan tea, but Figure 2 shows a fall in the price of Kenyan tea. **[1]**
- The demand for Kenyan tea is likely to be price elastic due to the availability of close substitutes like Chinese tea. **[1]**
- Therefore. the fall in price leads to a more than proportionate increase in the quantity demanded for Kenyan tea. **[1]**
- The rise in revenue due to the rise in quantity outweighs the fall in revenue from the fall in price. Overall, export revenue for Kenyan tea rises. **[1]**

(c)	**With reference to Extract 1, explain the possible value of the cross price elasticity of demand between Kenyan tea and Chinese tea.**	**[2]**

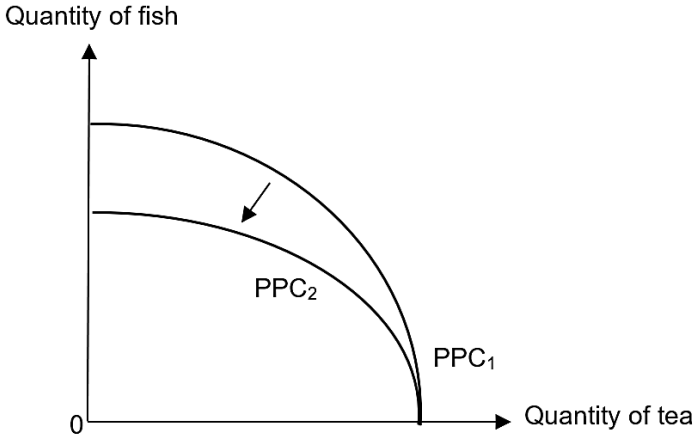
- Kenyan tea and Chinese tea are substitutes with positive cross price elasticity of demand. As the price of Kenyan tea rises, the demand for Chinese tea will increase. **[1]**
- They are likely weak substitutes because even though China is one of the largest producer of tea, it has increased its import of Kenya tea over the years (Extract 1). Hence the likely value is a small positive number less than 1. **[1]**

(d)	**On a production possibilities diagram, explain how 'eutrophication' (Extract 2) would affect the amount of tea and seafood produced.**	**[3]**

- Eutrophication arises because of the extensive use of fertilisers in the cultivation of Kenyan tea. With eutrophication, fish populations will be adversely affected, leading to less seafood being produced.
- As there is less fish stock in the oceans, this will shift the production possibilities curve inwards from PPC_1 to PPC_2 as seen in Figure 1 below. **[1]**
- There is less seafood that can be produced, but no change in the amount of tea produced. **[1]**

[1] for fully labelled and accurately drawn diagram.

Figure 1: Production Possibilities Curve



(e)	**Discuss whether greater efficiency would be achieved with the merger of Lipton and Browns.**	**[8]**

Question Interpretation

Command phrase	*Discuss whether*	This question requires a balanced discussion on whether the merger between these two firms will improve the efficiency.
Content	*Merger* *Greater efficiency*	Two firms merging to become a bigger firm à increase demand (AR and MR) Allocative, productive and dynamic efficiency
Context	*Lipton and Browns*	Context of the merger of these two firms

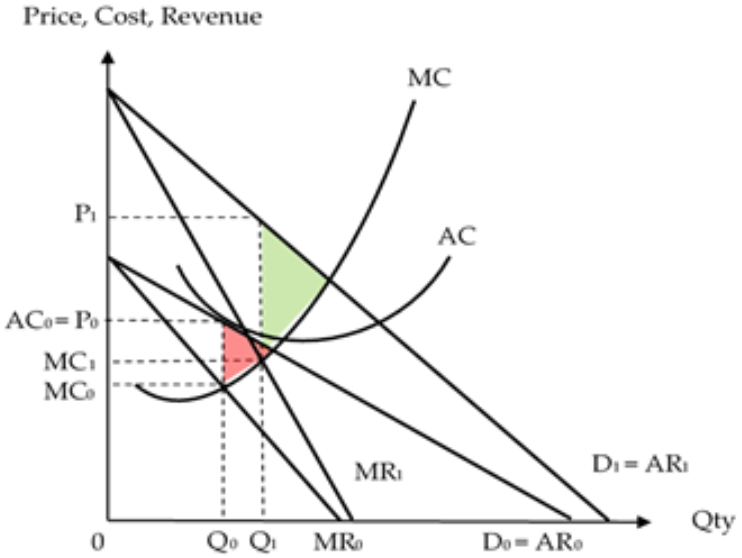
Introduction

- Lipton and Browns are both firms producing tea, so a merger between the two firms would be considered as a horizontal merger.
- The effects would be that firms will form a larger firm. This essay will examine whether the merger will result in greater or lower efficiency.

- **KA1 – The merger of Lipton and Browns will result in lower allocative and productive efficiency.**
- The merger of Lipton and Browns will make the firm a larger one, resulting in greater market share. It also reduces the number of competitors in the tea market.
- As there are fewer competitors selling tea, the demand for the merged firm will increase and become more price inelastic (from AR0 to AR1).
- At profit maximization MR = MC, the newly merged firm will produce output Q1 and charge a higher price, P1, for tea.
- On the other hand, allocative efficiency is attained where output corresponds to P = MC.
- Before merger, the profit maximising firm will charge P0, which is higher than MC0 and is allocative inefficient. Consumers' benefit from the last unit of the product is greater than the opportunity costs incurred in producing that last unit. However, the gap between price P0 and marginal cost MC0 is relatively small, and the resulting deadweight loss (dark shaded area) is smaller.
- However, after the merger, the merged firm charges P1 which is substantially higher than MC1. The gap between the new price (P1) and new marginal cost (MC1) is even larger than before.

- There is a greater extent of underproduction, which is more allocative inefficient. This is illustrated by the larger lighted shaded area.

Figure 2: Effect of merger



- Furthermore, due to the reduced competition, the merged firm may not have incentive to be producing at the lowest point of its LRAC since it is likely making more supernormal profits than before. Therefore the outcome may also be productively inefficient, from society's point of view. This is also known as x-inefficiency.
- Even if the merged firm is not x-inefficient, there is a chance that the combined production of the new firm caused the production output to correspond to the upward sloping portion of LRAC. This means that the merged firm experienced internal diseconomies of scale, which is also a display of productive inefficiency.
- Give brief examples of internal diseconomies of scale applied to the context.

- **KA2 – The merger of Lipton and Browns will result in greater dynamic efficiency.**
- The merged firm will earn greater profits as seen from the figure above. Before merger, the firm was assumed to be earning normal profits, producing Q0 units and charging a price of P0. However, the AC was at AC0, which equates to P0, thus earning normal profits.
- After the merger, assuming LRAC is constant, the merged firm now has a higher demand and MR, thus charging a price of P1, and producing Q1 units at AC = AC1.
- The fall from AC from AC0 to AC1 is the result of the merged firm enjoying internal economies of scale as the scale of production increase. The firm enjoys cost advantages depicted by the movement along the downward-sloping portion of AC.
- Give brief examples of internal economies of scale applied to the context.
- The merged firm thus has higher profits and has greater ability to engage in R&D for product innovation to create better quality products, thus achieving greater dynamic efficiency.
- This can also be seen from extract 3, where the merged firm will be establishing a "state-of-the-art" tea specific fertiliser plant which may mean greater innovation and dynamic efficiency.

Evaluative Conclusion

- **[Stand + Situation]** On the overall, it is likely that the merger will result in greater efficiency. While there are indeed concerns over lower allocative and productive efficiency as a result of the merger, the competition regular in Kenya has given the green light for the merger. This suggests that the merger is assessed to not have an overall negative impact for consumers.

- **[Magnitude]** Furthermore, there are other 'formidable competitors' like Kenya Tea development agencies (KTDA), Eastern Produce Kenya Ltd. and Williamson Tea, suggesting that the merged firm will still have significant competition and therefore unlikely to suffer from a great extent of productive and allocative inefficiency.

Mark scheme

Level	Knowledge, Application, Understanding and Analysis	Marks
L2	For a well-developed answer that has: ● **Good scope and balance** – explains how the merger may increase and decrease efficiency. ● **Good rigour** – good application to context of Lipton and Browns, with the use of case evidence.	4 – 6
L1	For an underdeveloped answer that ● Lacks scope and balance – only explains either how the merger may increase or decrease efficiency. ● Lacks rigour – descriptive explanation of the merger, without an appropriate framework, and without link to efficiency.	1 – 3
Plus up to 2 marks for Evaluation		
E	For a well-substantiated evaluative judgement on whether the merger of Lipton and Browns will result in greater or lower efficiency in the market for tea.	1 - 2

(f)	**Discuss the factors that the Kenyan government considers when deciding whether to promote tea tourism.**	**[10]**

Question Interpretation

Command phrase	*Discuss the factors*	This question requires the discussion of potential benefits and costs of the decision to promote tea tourism
Content	*Deciding whether to promote tea tourism*	Decision making framework – benefits and costs Benefits – macroeconomic benefits, higher economic growth and lower unemployment Costs – negative externalities on the environment
Context	*Kenyan government*	Context of the considerations of the Kenyan government

Introduction

- Governments will usually consider the benefits and costs before making decisions.
- The benefits of tea tourism comes in the form of attainment of macroeconomic goals of economic growth and lower unemployment, while the costs are the potential allocative inefficiency from the negative externalities of tea production and the unsustainable economic growth.

- **KA1 – The Kenyan government should consider the potential benefits in achieving macroeconomic goals of economic growth, lower unemployment, improved balance of payments and inclusive growth.**

- Tea tourism brings about benefits as it helps the Kenyan government achieve economic growth and lower unemployment.
  - Based on information from Extract 4 (the country's suitability for nature tourism and abundance of labour), it seems that Kenya has a comparative advantage in tourism services, thus it serves as an engine of growth for the country.
  - Tourists spending on such tours represents an increase in export revenue. Assuming import expenditure is constant, there will be an increase in (X-M).
  - **[To include AD/AS diagram]**
  - As (X-M) increases, there will be an increase in AD. The AD curve shifts rightwards from AD1 to AD2. Assuming spare capacity, there will be a multiplier effect where there are multiple rounds of increases in income-induced consumption due to the initial rise in AD, leading to a multiplied increase in real output. This is because as AD rises, firms experience an unplanned fall in inventories which is a signal for them to step up production and demand for more factor inputs to produce more output.
  - Taken together, the rise in (X-M) and the multiplier effect will increase AD further. The AD curve will shift rightwards from AD2 to AD3 in Figure 4. Actual growth is achieved when real output increases from Y1 to Y2.
  - As output increases, firms increase their derived demand for labour. Thus, leading to a fall in demand-deficient unemployment.
  - The above analysis aligns with Extract 4 citing that there is employment of local workers and multiplier effects with their earnings.
  - The increased export revenue (assuming import expenditure constant) will contribute to improvement in Kenya's balance of payments through the improvement of its balance of trade. The improved balance of payments can increase future foreign investment into Kenya as investor confidence is boosted.
  - From Extract 4, it was mentioned that tea tourism in the form of tours to farms offer tourists educational experience in tea picking. Lower income small scale tea farmers are encouraged to offer these experiences, which will contribute to their increased earnings. This will improve their incomes and standard of living, thus contributing to more inclusive growth since these small-scale farms may be less efficient than the large farms in generating profits.

- **KA2 – The Kenyan government should consider the potential costs of tea tourism like the negative externalities and unsustainable economic growth.**
- Tea tourism brings about costs of allocative inefficiency due to negative externalities in production and unsustainable economic growth.
  - Tea producers only consider their own marginal private benefits which is the additional revenue they can earn from producing one more unit of tea, and their marginal private costs which is the additional cost of wages and fertiliser used.
  - The use of fertiliser in tea production result in water pollution which can cause the livelihoods of fishermen to suffer and suffer lower incomes because of the reduced fish population.
  - The presence of MEC creates a divergence between MSC and MPC, where MSC is higher than MPC.
  - The private optimal quantity is Qp where MPC = MPB and is higher than the social optimal quantity Qs where MSC = MSB. There is hence an overproduction of QsQp units of tea.
  - From Qp to Qs, there is more social costs than social benefits, leading to a deadweight loss of abc, resulting in allocative inefficiency.
  - The pollution is also a form of unsustainable economic growth, which represents costs to the government.
  - ** Students can also explain the negative externalities associated with tourist arrivals, where there are negative externalities arising from the consumption of tourist activities based on Extract 4.*

- Tourists only consider their own marginal private benefits which is the additional satisfaction they can enjoy from consuming one more unit of tourist activity, and their marginal private costs which is the additional cost incurred to procure the tourist activities.
- The promotion of tea tourism could result in degradation of tea gardens and their surrounding natural environments. This could result in tea garden owners suffering from less revenue. The strain on water and energy from increased tourism could drive up water and energy prices, causing the locals to incur higher cost of living.
- The presence of MEC creates a divergence between MSC and MPC, where MSC is higher than MPC.
- The private optimal quantity is Qp where MPC = MPB (tourists maximise their own utility) and is higher than the social optimal quantity Qs where MSC = MSB. There is hence an overconsumption of QsQp units of tourist activities.
- From Qp to Qs, there is more social costs than social benefits, leading to a deadweight loss of abc, resulting in allocative inefficiency.
- The environmental degradation is also a form of unsustainable economic growth, which represents costs to the government.

Evaluative Conclusion

- **[Stand]** On the overall, the benefits are the more significant factor.
- **[Situation + Alternative]** Given that Kenya is a developing country (low-middle income country) with spare capacity, higher economic growth is likely to be priority since it will improve the material well-being of its people and create employment. With the higher economic growth from tea tourism, the Kenyan government can potentially collect higher tax revenue from her citizens. The tax revenue collected could then be used to research into better ways to mitigate the negative environmental costs from tea production. Therefore, the benefits seem to be the more important factor to consider in view of the current living standards and economic prosperity in Kenya.

Mark scheme

Level	Knowledge, Application, Understanding and Analysis	Marks
L2	For a well-developed answer that has: ● **Good scope and balance** – explains both benefits and costs that the Kenyan government considers when deciding to promote tea tourism. ● **Good rigour** – good application to context of Kenyan tea	4 – 7
L1	For an underdeveloped answer that ● Lacks scope and balance – only explains either benefits or costs of promoting tea tourism ● Lacks rigour – descriptive explanation of the benefits and costs, without an appropriate framework.	1 – 3
Plus up to 3 marks for Evaluation		
E	For a well-substantiated evaluative judgement on the most important factor in the decision to promote tea tourism	1 – 3

H2 Question 2: Price stability and Sustainable Growth
Suggested Answers

(a)	(i)	**Using Table 1, calculate and state the change in net export balance for US from 2019 to 2023.**	**[2]**

1m for the calculation:

- From Table 1, value of exports have risen by 53.96 billion USD and the value of imports have increased by 375.5 billion USD. **[1]**

OR

- Net exports changed from -$669.39 billion to -$990.93 billion. **[1]**

OR

- Net exports fell by $321.54 billion. **[1]**

OR

- Net exports changed from -$669.39 billion to -$990.93 billion, a fall of $321.54 billion. **[1]**

1m to state the change in net export balance from 2019 to 2023:

- The change is a worsening trade deficit. **[1]**

	(ii)	**Using one economic indicator from Table 1, account for the above change.**	**[2]**

- Table 1 showed a rising inflation rate in the US. **[1]**
- With higher relative prices domestically, this may have caused consumers to switch away from consuming domestically produced goods and services towards consuming more imported goods, leading to a worsening trade deficit. **[1]**

OR

- From Table 1, the exchange rate of the United States dollar showed a general **appreciation** within the same time period. **[1]**
- With an appreciation, the price of exports rises in foreign currency, leading to a fall in the quantity demanded for exports. The price of imported goods falls in domestic currency, leading to a rise in quantity demanded for imports. Assuming the absolute sum **elasticities of demand for exports and imports is more than 1**, i.e. the Marshall-Lerner condition holds, the appreciation would lead to a worsening trade deficit. **[1]**

(b)		**Explain one intended and one unintended consequence of a rise in US's interest rates on its households.**	**[2]**

Explain the intended consequence of a rise in interest rates – 2m

- The intended consequence of higher interest rates is to increase the costs of borrowing and so that households reduce consumption especially for big ticket items that require credit. **[1]**

OR

- The intended consequence is to increase the returns to savings so that households will be enticed to save more and cut consumption. **[1]**

Explain the unintended consequence of a rise in interest rates – 2m

A rise in the interest rate can have a negative impact on households.

- As households face "higher mortgage rates" (Extract 5), they have to fork out more to finance their housing loans, resulting in less savings for retirement or other purposes. **[1]**

OR

- Interest rate hikes "create tighter financial conditions during which share prices and stocks drop in value" (Extract 5) so household wealth assets fall in value OR households experience a fall in income streams from falling dividends of stocks and shares. **[1]**

OR

- Higher interest rates can "put a strain on retirement savings" (Extract 5) because as households may have to dip into their savings to finance their housing loans/credit which have increased. **[1]**

(c)	**Using the concept of circular flow of income, explain how the equilibrium level of national income of China will change as a result of the "record trade surplus" in Extract 7.**	**[6]**

(Optional) Define the circular flow of income

- The circular flow of income shows the movement of income and payments between households, firms, banks, government, and in an open economy, the external sector.

Link the record trade surplus to rise in X

- The record trade surplus (Extract 7) implies a rise in the export revenue (X). **[1]**

Link the record trade surplus to rise in Injections; J

- This causes an increase in injection (J) into the circular flow of income. **[1]**
  - As J exceeds W, this causes the circular flow of income to be in disequilibrium.

Link in J to rise in derived demand for factor inputs

- As the demand for domestically produced goods and services by the government increases, this depletes firms' inventories. Firms increase production and demand for more factors of production such as labour. **[1]**

Link to a rise in factor income

- The payment for factor inputs rise, leading to a rise in incomes of households. **[1]**

Explain the multiplier process

- Households will spend a proportion of this increase in income, and the rest will be withdrawn via savings, taxes and spending on imports.
  - As one's spending equals another's incomes, there will be successive rounds of income-induced consumption. **[1]**

Link to multiplied increase in national income

- This process of increases in induced consumption and W stops when the total increase in W is equal to the initial J, and there is a rise in national income by a multiplied amount of the initial trade surplus. **[1]**

(d)	**Discuss whether the "Made in China 2025" initiative could help China attain sustainable growth.**	**[8]**

Question Interpretation

Command phrase	*Discuss whether*	This question requires a balanced discussion of how the initiative may and may not help China attain sustainable growth, before weighing both sides of the argument to arrive at a substantiated evaluative judgement to form a judgement on the extent to which sustainable growth may be achieved.

Content	*"Made in China 2025" initiative*	The goal of "Made in China 2025" was to turn China into a green and innovative "manufacturing power", one that relied less on labour and Western supply chains, and more on automation and new home-grown technologies with government aid.
	Sustainable growth	Sustainable growth = sustained growth + not creating other significant economic problems (such as depletion of resources and environmental degradation), particularly for future generations.
Context	*China*	Students should apply their analysis to Extract 7 to demonstrate application to context.

Candidates should provide a balanced analysis of how the initiative may and may not help China attain sustainable growth, before weighing both sides of the argument to arrive at a substantiated evaluative judgement to form a judgement on the extent to which sustainable growth may be achieved.

Introduction

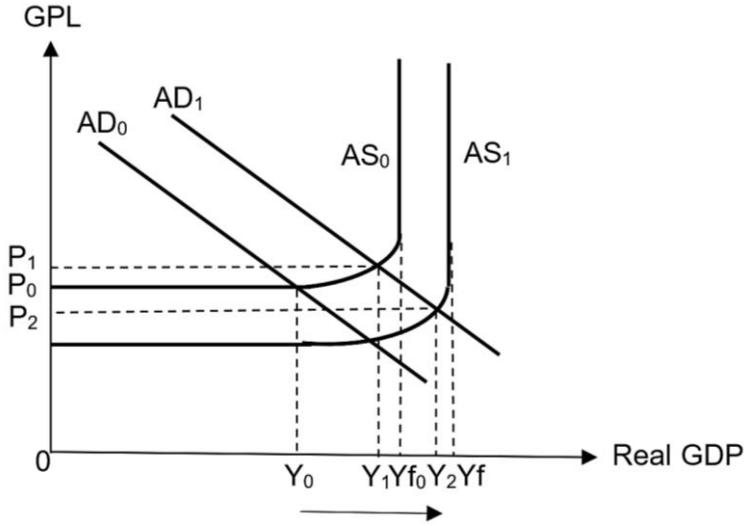
- **[Define key term(s)]** Sustainable economic growth indicates a rate of growth that can be maintained without creating other significant economic problems, such as depleted resources and environmental problems, particularly for future generations. It implies a positive and stable growth rate over an extended period of time.
- **[Refer to context]** Extract 7 states that the goal of the "Made in China 2025" initiative is to transform China into an environmentally friendly and innovative manufacturing powerhouse, with the aid of the Chinese government.
- **[Outline approach]** This may help China attain sustainable growth but also have limitations.

Body

- ***(KA1) Thesis:*** **The "Made in China 2025" initiative could help China attain sustainable growth.**
- The government aid to support Chinese firms to automate and R&D using new home-grown technologies (Extract 7) has led to both increases in AD and AS, achieving sustained growth, a prerequisite for sustainable growth.
- The record trade surplus from the initiative represents an increase in net exports (X-M) which increases AD, and assuming spare capacity, lead to a multiplied increase in real GDP via successive rounds of increases in income-induced consumption.
  - This is because as AD rises from the initial increase in (X-M), firms experience an unplanned fall in inventories, signalling them to step up production and demand for more factor inputs to produce more output.
  - Thus, this leads to a larger rise in the AD, shifting the AD curve rightwards from AD0 to AD1, causing a multiplied increase in real GDP from Y0 to Y1 (Figure 1), achieving <u>actual economic growth.</u>
- Automation and the use of new technology by Chinese firms can increase productivity and allow for increased productive capacity, allowing firms to produce more cheaply and have higher output with the same amount of factor inputs.
  - This has the effect of lowering the unit cost of production and increasing the full employment output level. This increase in AS will be shown diagrammatically as a downward and rightward shift of the AS from AS0 to AS1. <u>Potential growth</u> is attained with the rightward shift of the AS curve as full employment rises from Yf0 to Yf.

- As AD and AS rises in tandem, there is sustained economic growth, where growth occurs in the long run with minimal inflationary pressures. This is shown by the increase in real GDP to Y2, and lower GPL at P2.

Figure 1: Sustained economic growth



- At the same time, with the focus on turning China into a "green" manufacturing power and government support in electric vehicles (EV) and clean energy, this will reduce the negative externalities both in the consumption of motor vehicles and production of energy.
  - The decrease in pollution will minimise the extent of environmental degradation and reduce the depletion of natural resources. This will prevent the quality of life and non-material living standards of present and future generations from worsening, hence allowing for more sustainable growth to be attained.

Notes:
- *Alternatively, students can explain how the government support for Chinese firms to invest in green technology will increase Investment expenditure, which has both AD and AS effects to achieve sustained growth as well. To attain sustainable growth, the explanation will then have to be extended to include how environmental degradation is reduced and the economic growth will not create other environmental problems which will affect future generations.*
- *However, they should take note to vary their analysis for the anti-thesis (focus on how X may not rise when government support is removed) to prevent scope from being affected.*

- ***(KA2) Anti-thesis:* The "Made in China 2025" initiative may be limited in helping China attain sustainable growth.**
- Extract 7 mentions that the initiative incurs significantly high fiscal burden which is likely unsustainable in the long run.
- The "direct subsidies, cheap credit and inexpensive land" provided to firms generously by the government may not continue because of the high government spending and strain on the government's budget.
- When the support to the firm is discontinued, firms are likely to reduce their investment expenditure (I) in green technology.
  - The fall in I will decrease AD as I is a component of AD. This can trigger the reverse multiplier effect, resulting in a multiplied fall in real GDP and negative growth.
  - In addition, as I falls, the decrease in quantity of capital stock will lower an economy's productive capacity, hindering potential growth.
  - The combined impact prevents the attainment of sustained growth.

- Extract 7 also mentions that the percentage increase in the world's solar panels and batteries in the area of clean energy was possible because of strong government support that allowed Chinese firms to "make these things at lower cost than firms elsewhere."
  - When government support is reduced or removed because of the fiscal strain, or when the fiscal budget runs the risk of a deficit or in the worst case scenario – a debt, Chinese firms may lose their competitiveness and not be able to compete with foreign firms. They may exit the industry if subnormal profits are incurred in the long run.
  - The exit of these firms in the green industry and clean energy will prevent the attainment of sustainable growth because China will then have to rely on non-renewable energy sources like coal or use less green technology which may accelerate environmental damage and result in higher carbon emissions.

Evaluative conclusion (stand + one A-T-Ms angle)

- The extent to which the "Made in China 2025" initiative could help China attain sustainable growth depends on both the fiscal strength and position of the Chinese government, and the competitiveness of Chinese manufacturing firms.
- **[Situation/Magnitude]** Extract 7 suggests that the initiative has been successful, having "achieved most of its aims". If so, the increase in real national income from the sustained economic growth will increase the incomes of households and profits of firms, allowing the Chinese government to collect higher tax revenue from direct taxes.
- **[Stand]** This will improve China's fiscal budget, allowing for continued support to be given to firms to focus on green manufacturing and hence attain sustainable growth to a large extent.

OR

- **[Situation/Assumption]** If the government support to the firms have bred productive inefficiency in firms, leading to higher unit costs of production rather than them producing at the lowest possible average cost, this will reduce the competitiveness of Chinese firms when the direct subsidies and cheap credit is removed. Retaliation by the "angry trade partners" in the form of foreign tariffs will further reduce the price competitiveness of Chinese manufactured goods, threatening the survival of these firms.
- **[Stand]** When this occurs, sustainable growth is unlikely to be attained because the China will no longer be a green manufacturing power.

Mark Scheme

Level	Knowledge, Application, Understanding and Analysis	Marks
L2	For a well-developed answer that has: ● **Good scope and balance** – explains how the "Made in China 2025" initiative may and may not help China attain sustainable growth, ● **Good rigour** – there is understanding that sustained growth is a prerequisite to sustainable growth, use of AD/AS analysis, and good application to context of China (Extract 7).	4 - 6
L1	For an underdeveloped answer that ● Lacks scope and balance – only explains how the "Made in China 2025" initiative may or may not help China attain sustainable growth, OR ● Lacks rigour – descriptive explanation of sustainable growth and/or lack of AD/AS analysis and/or no application to context.	1 - 3
Evaluation		

	E	For a well-substantiated evaluative judgement on the extent to which the "Made in China 2025" initiative could help China attain sustainable growth.	1 - 2	

(e) Discuss whether governments should adopt free trade agreements or supply-side policies to address a worsening trade balance. [10]

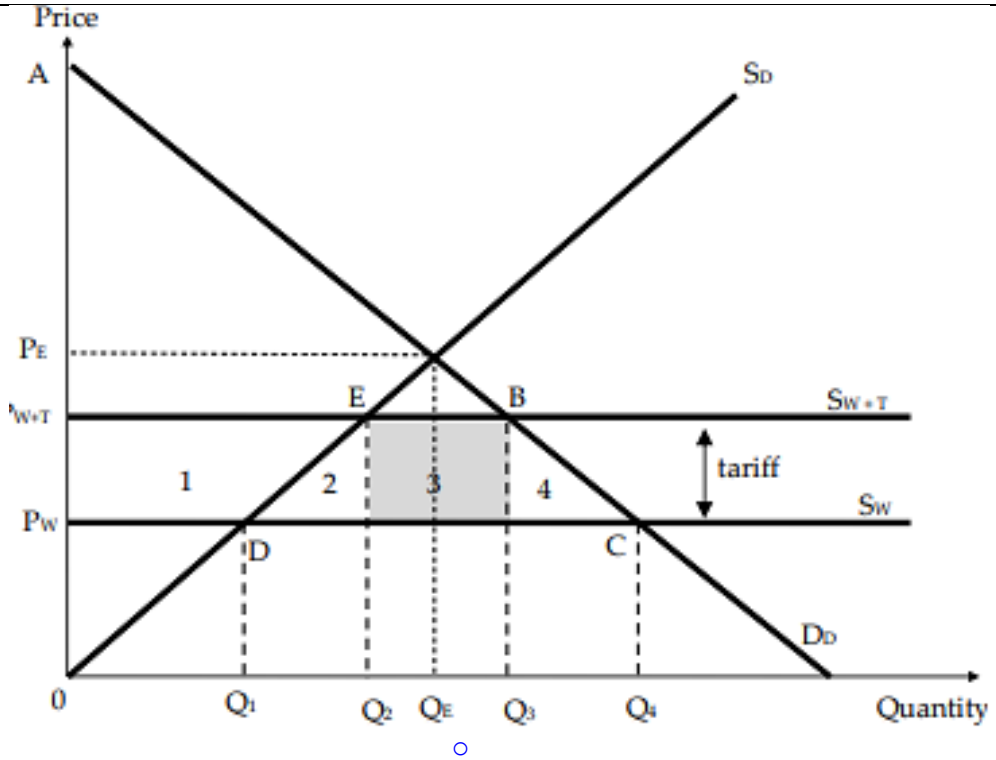
Question Interpretation

Command phrase	*Discuss whether*	This question requires a balanced discussion of the two policy measures to address a worsening trade balance
Content	*Free trade agreements*	
	Supply-side policies	Policies that help to increase Aggregate Supply
	Address a worsening trade balance	Policies should focus on increasing export revenue (X) and reduce import-expenditure (M)
Context	*Governments*	No specified context – students can free to use the case materials or their own contextual knowledge to support their analysis

Introduction

- Define BOT as the difference in value between a country's imports and exports of goods and services over a period of time.
- To address a worsening trade balance, governments may opt to employ the policy to pursue more Free Trade Agreements (FTAs) or adopt Supply side policies (SSP) to improve trade terms or improve more goods and services with comparative advantage.

- **KA 1: Free Trade Agreements can be a demand management policy to increase net exports to addressing worsening trade balance.** (employ OWL framework)
- A Free Trade Agreement (FTA) is a legally binding arrangement between willing member countries to enhance trade and investment flows by lowering tariffs for exports of goods, improved market access, better terms for investment etc.
- Eliminating or lowering tariffs on a country's exports, such as Britain will increase price competitiveness of the exports. As seen in Figure below, initially there was a tariff imposed by a trading partner and the good is priced at Pw+T, with Q2Q3 of British exports being brought in. After a FTA, the tariff is removed and price dropped to the world trading price Pw, where there is now a higher quantity of British exports being brought into the trading country. Hence the FTA has led to higher price competitiveness. As British exports are not unique with many other substitutes, demand is price elastic and there will be a higher export revenue as shown by Q1DCQ4 as compared to Q2EBQ3. With higher export revenue, this helps to counter directly against a worsening balance of trade.



- ***Optional:*** With a free trade policy, member country may benefit from technology transfer as foreign firms invest in these countries. Technology transfer may occur to improve knowledge and skills on the production of the goods and better quality capital goods. This may help the country to gain comparative advantage where it has a lower opportunity costs in production, and hence gains more access to export markets to increase export revenue. This helps the country to mitigate against a worsening balance of trade.
- **Limitations:** However, with free trade agreements, this also means that the country is also more vulnerable and exposed to external shocks. For example, a recession among the trading partners will also inadvertently reduce our export revenue. So there may be increased volatility in the balance of trade.

KA2: Supply side measure such as R&D grant into potential industries to develop comparative advantage to mitigate against worsening trade balance. (OWL)

- **To maintain the general competitiveness of an economy and mitigate worsening balance of trade, policies that aim to raise productivity and reduce the unit cost of production should be introduced.**
- Governments may adopt supply-side policies in the form of Research & Development (R&D) grants to firms to help raise productivity. R&D may also spur firms to engage in product innovation and process innovation.
  - The former will help to improve quality of goods and make demand more price inelastic, which help to booster export revenue even when there are rising cost of production and higher export prices. Process innovation will help reduce the unit cost of production, increases the AS via a downward shift of the AS curve. Increased productivity will also reduce unit cost of production and increase productive capacity. This will mean that export price competitiveness increases and export revenue rises given that most exports have price elastic demand due to numerous available substitutes.

- Alternatively, supply-side policies that equip people with the relevant skills to match the needs of 'new industries' where the new comparative advantages reside may also be employed. An example would be the retraining of workers, which allows for a better match of skills and jobs available for example in the Fintech and Data Science emerging industries.

- **[Limitation]** However, such supply-side policies may perpetuate inefficiencies in the economy and may be regarded as protectionist by foreign countries, inviting retaliation.

OR

- Some factors which could limit the effectiveness of upgrading or training or bring about unintended consequences are time lags, high administrative costs and resistant mindsets.

Evaluative conclusion

- **[Stand + Situation]** Whether governments should adopt free trade agreements or supply-side policies depends on the root cause for the worsening trade balance.
  - For example, if the country is facing a loss of comparative advantage, supply side policies is more applicable as it can help foster a niche area to develop new comparative advantage and boost price competitiveness of its exports.
- Nature of the economy may also play a major factor behing the policy decision, as a small and open economy like Singapore would need to tap on free trade agreements to gain access to export markets and improve its trade balance.

Alternative evaluative conclusion

- **[Stand+Situation+Time]** The use of free trade agreements may be a better policy choice for governments with fiscal debts or budget constraints issues as the supply side policies may involve costly and long drawn expenditure outlay be it for R&D grants which take a long time or for skills retraining, which require a long time for the mindset shifts to occur. Furthermore, free trade agreements can be negotiated, and the terms customised for different parties involved, in a bilateral or multilateral basis to help meet the needs of the trading parties, which means there is a greater chance of helping to increase trade and investment relations, which will help with improving the trade balance over time.

Mark Scheme

Level	Knowledge, Application/Understanding and Analysis	Marks
L2	For a well-developed answer that has: • Good scope and balance – explains both the workings and limitations / unintended consequences of both policies; and • Good rigour – explains using relevant economic analysis.	4-7
L1	For an undeveloped answer that: • Lacks scope and balance – either explains only one policy and its limitations / unintended consequences OR explain two policies but without limitations / unintended consequences; and/or • Lacks rigour – descriptive answer without relevant economic analysis.	1-3
Evaluation		
E	For an answer that uses economic analysis to support an evaluative judgement on the better policy of the two mentioned in the question.	1-3