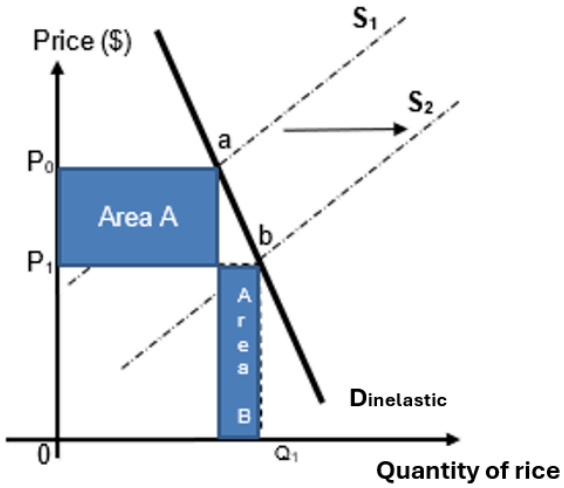
2024 CATHOLIC JUNIOR COLLEGE
H1 Prelims 8843/01

CSQ1 Suggested Answers

(a)	**(i)**	**Using Figure 1, compare the prices of the selected primary products from 2017 to 2022.**	**[3]**
		Any three of the following: **Similarity:** Prices of all primary products generally increased from 2017 to 2022. [1] **Difference:** Price of wheat increase at a faster rate relative to the rest. [1] **Difference:** Price of rice is consistently higher than Corn, Oats and wheat. [1] **Difference:** The price of oats was consistently increasing, whereas rice, wheat and corn prices experienced a fall in 2021, 2019 and 2020 respectively. [1]	
	(ii)	**Using Figures 1 and 2, explain the relationship between the price of fertilizer and the prices of wheat from 2017 to 2022.**	**[2]**
		There is a direct/positive relationship between fertiliser prices and wheat prices from 2017 to 2022. [1] Fertilisers are used as factor inputs to produce wheat, when the price of fertilisers goes up, the cost of production of wheat increases, [1] and the supply of primary product decreases and shifts to the left. This increases the equilibrium price of wheat prices. <u>Alternative answer:</u> Higher demand for wheat □ higher price and output for wheat □ derived demand for fertilizers increases, leading to a higher price of fertilizers. Note: Price adjustment process is not required.	
(b)		Explain **one** unintended consequence on the US producers due to its sanctions on Russia.	[2]
		As a result of the sanctions on Russia, from Extraact 1, “Russia’s response to international sactions has been to halt exports of more than 200 products”, This is likely to reduce the **global supply of crude oil**, as Russia is one of the **largest exporters of crude oil from Extract 1.** [1] This reduction in supply can cause oil prices to rise due to the decreased availability of oil in the global market.	

		This results in an increase in the **cost of production of goods and services.** Ceteris paribus (holding total revenue constant), **total profits falls**. [1] <u>Alternative answer:</u> With the sanctions on Russia exports, there is a fall in the export revenue of Russia, leading to a fall in AD and RNY of Russia. With the **fall in disposable income of the average Russian**, US producers will experience a **fall in the demand for their goods and services (assume normal goods)** as US's exports to Russia decrease fall in equilibrium price and quantity and hence **fall in total revenue and thus profits** of US producers.	
(c)		**Using a diagram, explain how fertiliser subsidies given to farmers by the Indian government is likely to affect consumer expenditure on rice.**	**[5]**
		Fertiliser subsidies given by the India government **lower the cost of production of rice increase supply and supply of rice shift to the right from So to S1**. [1] Increase in supply of rice **increase Q and decrease in P** TE indeterminate and depends on PED. At the original price, there is a surplus and a downward pressure in prices. [1] Demand for rice is likely to be **price inelastic** due to the lack of available substitutes / **high degree of necessity**. [1] The decrease in price from P0 to P1 **LTP increase in Qd from Q0 to Q1**. As TE=P x Q, this will lead to a **decrease in TE** from Area 0P0AQ0 to 0P1BQ1. [1] Well-labelled and referenced diagram [1]	



(d)		**Identify and explain <u>two</u> main characteristics of public goods and comment on whether they are likely to be possessed by the water monitoring system.**	**[6]**
		<u>Define non-rivalry and explain its implication</u> Non-rivalry in consumption means that consumption of the good by one more person will not leave less for others to consume. [1] Once the good is produced, there is no additional cost incurred in providing the good to an additional user. Hence, marginal cost is zero. Since Price = Marginal Cost for allocative efficiency, the price of the good should be zero. Hence there is no supply due to no incentive for profit-maximisation producers. [1] <u>Define non-excludability and explain its implication</u> Non-excludability in consumption means that once provided, no one can be excluded from consuming the good, even if they do not pay. [1] Free rider problem arises because it is prohibitively costly to exclude non-payers from the consumption of the good. Hence, there is no effective demand. [1] <u>Comment</u> **Why water monitoring system is non-excludable: [1]** A water monitoring system is likely to possess non-excludability. Once the data from the water monitoring system is made available, non-payers such as the general public cannot be excluded from using the information.	

		Why water monitoring system is non-rivalrous: [1] The information provided by a water monitoring system is non-rivalrous. One person accessing the data **does not** diminish the amount of data made available to others. Hence, water monitoring system can be considered a public good because it is non-excludable and non-rivalrous. <u>Alternative answer if student argues that is it not a public good: can accept the following:</u> Water monitoring system is a private good as it does not satisfy the two main characteristics. Excludable: However, the data can be made excludable if accessing the data requires payment, such as subscription fees. However, it is always non-rivalrous as the usage of information by one person does not diminish the amount made available to others.	
(e)		**Discuss the factors the Singapore government is likely to consider when promoting the use of technology to achieve food security and affordability in Singapore.**	**[8]**
		Introduction: Food security (increasing equilibrium quantity to be self-sufficient) and food affordability (ensuring stable equilibrium prices).The aim of government policies of using technology can influence the supply of local production of food to achieve the goals of food security and food affordability. **<u>Factor 1: Benefit</u>** Using **technology** in redeveloping the Lim Chu Kang area and transforming it into a ‘’vibrant, high-tech agri-food cluster to boost domestic food production’’ helps to improve productivity in food production and reduce the unit cost of producing food in Singapore. This will increase the local supply of food supply shifts to the right. Given that the price elasticity of demand for food is generally price inelastic due to a lack of substitutes, this will help to bring down the equilibrium price of food to a large extent and increase food output (thus attaining both food security and affordability). The decrease in price increase the affordability of these necessity, allowing the lower income family to gain greater access to basic necessity, improving equity. **<u>E1: Extent of benefit</u>** The “30 by 30” vision is a strategic goal the Singapore Food Agency (SFA) set to bolster Singapore’s food security. The aim is to produce 30% of the nation’s nutritional needs locally by 2030. This initiative increases food	

security by addressing the vulnerability of Singapore's food supply chain, which relies heavily on imports for over 90% of its food. It reduced Singapore's dependence on imports: By increasing local food production, Singapore can mitigate the **risks associated with global supply chain disruptions.** Additionally, there is **greater resilience against global Crises**: In events such as pandemics, climate change, or geopolitical tensions, having a robust local food supply can ensure continuous access to essential nutrients. This resulted in Singapore achieving food security and affordability in the long run.

Factor 2: Cost and Consequences

When deciding on resource allocation to achieve food security and affordability, the government must consider the policies' cost. This will require significant financial resources as explicit monetary cost. Redeveloping the Lim Chu Kang area and transforming it into a ''vibrant, high-tech agri-food cluster requires a high financial cost.

Furthermore, there are opportunity costs to such spending. Should the government adopt the policies, resources allocated to food security and affordability may be diverted from other critical areas such as healthcare, education, or infrastructure development. Land used for urban farming might have alternative uses that generate higher economic returns. Intensive farming practices, even those using advanced technologies, may have unintended environmental consequences, such as increased energy consumption and waste generation.

E2: Extent of the cost

The extent of the cost could be limited in the long run. Singapore is leveraging cutting-edge technologies like vertical farming, hydroponics, and aquaponics, which maximize yield per unit area and reduce resource inputs such as water and fertilizers. While having high initial setup costs, these technologies can become cost-effective over time due to increased productivity and reduced operational costs. Additionally, investment in R&D can lead to innovations that further drive down costs and improve efficiencies in food production.

Summative Evaluation:

It is likely that the benefits will outweigh the costs. By setting the 30 by 30 goals, Singapore is taking proactive steps to secure its food future, ensuring a sustainable, resilient, and healthy food supply for its population. Through redeveloping Lim Chu Kang area and transforming it into a ''vibrant, high-tech agri-food cluster, the production of food will increase, and price of food will decrease. This will enable the Singapore government to achieve its goals of food security and affordability.

Marking Scheme

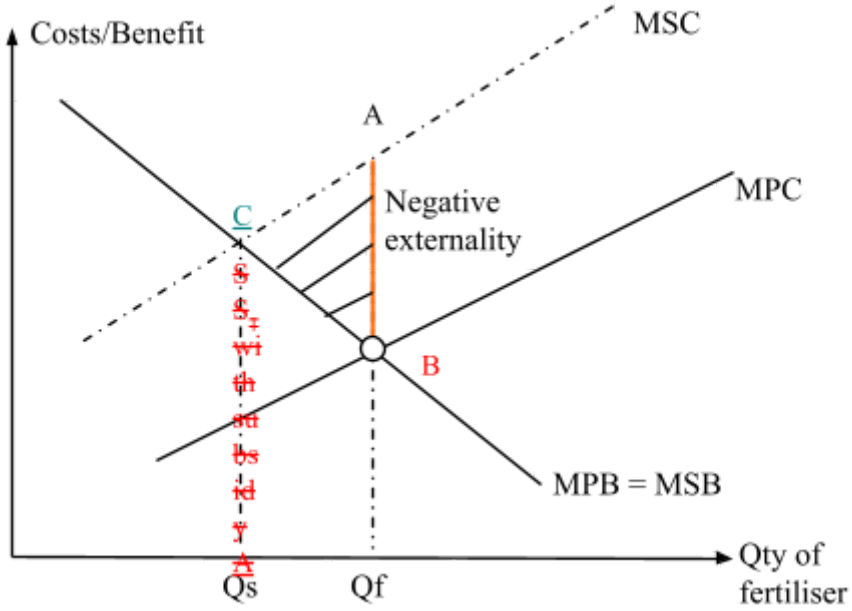
Knowledge, Understanding, Interpretation, Application and Analysis			
Level	**Analysis Level**	**Descriptors**	**Marks**

		L2	A+A A+C C+C C+K A	Responses in this level will provide detailed analysis of two factors the government would consider when promoting the use of technology to achieve food security and affordability in Singapore food market., showing excellent ability to describe and explain relevant economic concepts, theories, and principles in a precise, logical and reasoned manner, with good use of extract evidence.	4-6	
		L1	C K+K K	Responses in this level will have some limited understanding of the factors the government would consider when promoting the use of technology to achieve food security and affordability in Singapore food market.. There may be some basic content errors and limited or no application of economic concepts, theories and principles to the context at hand.	1-3	

Evaluation

Level	Descriptors	Marks
E2	One well explained evaluative statement or two weakly explained evaluative statements and a short summative conclusion that addresses the question.	2
E1	One evaluative statement that may be generic, weakly explained or not supported by the arguments presented in the answer.	1

(f)	**(i)**	**Using evidence in Extract 2, explain how the use of fertilisers can lead to misallocation of resources.**	**[4]**
		In deciding how much fertiliser to use, self-interested and rational farm producers will only weigh their **marginal private benefit (MPB) against their marginal private cost (MPC) and consume fertiliser till Qf, where MPB = MPC**. Private cost includes the explicit cost of fertiliser. The private benefit includes the revenue earned from an increase in production of crops due to fertilisers. However, consumption of fertiliser generates negative externalities (MEC). These externalities include **adverse impacts on health for third parties living near the river. As farmers** overapply fertilisers, excess nutrients are washed off and pollute the natural environment. This causes contamination	

		of ground water, reducing longer-term soil health and productivity. Nutrients pollution in water bodies affects habitats and food chains, leading to declines in fish population and when consumed by residents living near the water bodies, it will lead to ill health and higher medical costs that are not compensated. To maximize society's welfare, the s**ocially optimal level of fertiliser consumption is at Qs, MSB=MSC.** There is an **overconsumption of QsQf.** At Qf, **MSC > MSB**, society values an additional unit of fertiliser consumption less than what it cost society to consume it. This leads to **deadweight loss of triangle ABC**.  Identifying Qf, Qs and their conditions [1] Negative externalities and the impact on third party [1] Qf>Qs showing overconsumption of fertiliser [1] DWL due to MSC>MSB at QfQs [1] Note: Students are advised to draw a diagram even though there is no diagram mark.	
	(ii)	**Discuss whether the measures adopted by Germany or Singapore can better address the misallocation of resources in the market for fertilisers.**	**[10]**
		Approach to the question: Introduction: Identify the objectives is to achieve efficiency be reducing overconsumption of fertilisers. Requirement 1: Germany government of **rules and regulation (Quota)** help to achieve efficiency and reduce the overconsumption of fertiliser.	

Evaluation 1: Limitation of rules and regulation, hard to monitor, need to enforce rules and regulation on farmers

Requirement 2: Singapore Government of providing **subsidies for innovation (alternatives) and reduce the demand for fertiliser.** Reduce the need to use fertilisers, reducing DWL and inefficiency.

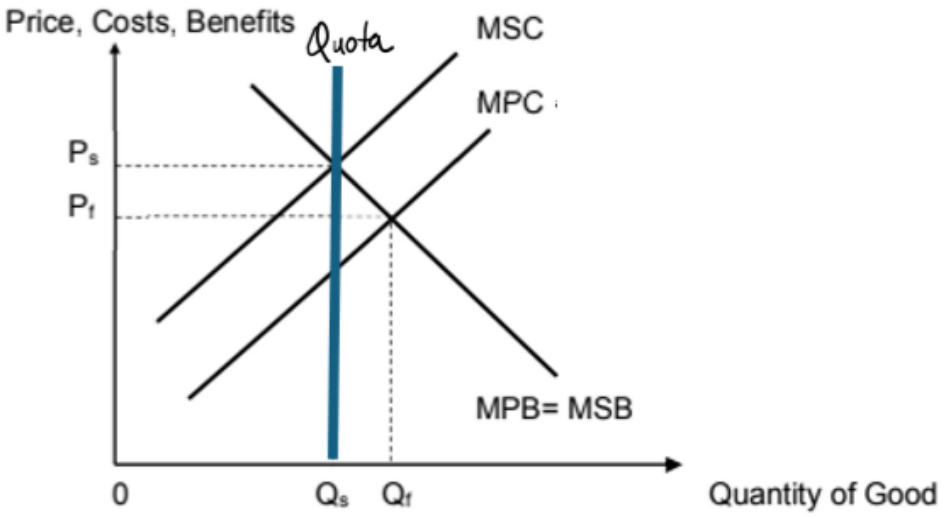
Evaluation 2: Limitation of subsidies, Innovation takes time.

Evaluative conclusion – Weigh the extent.

Introduction: Explain on efficiency

R1: Germany government imposed rules and regulation of Quota to restricts consumption of fertiliser to the Qs level.

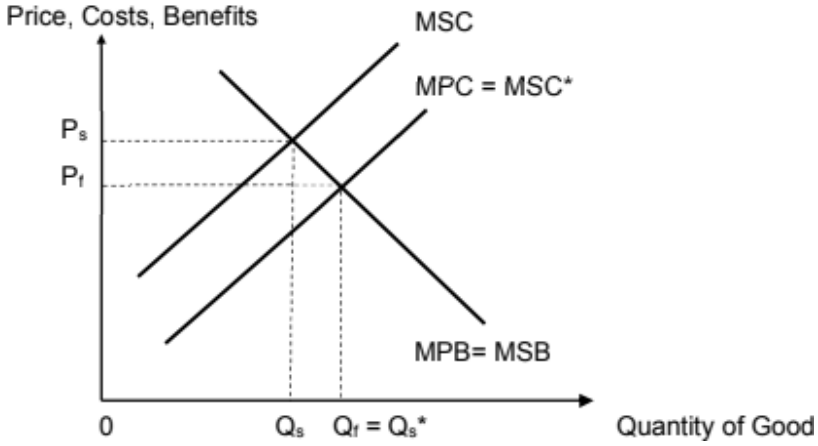
The German government can implement regulations that directly limit the quantity of fertilizers that farmers are allowed to use. This can be done through the imposition of a quota system, where each farm is allocated a specific amount of fertilizer that they are permitted to consume. From Extract 3, the Fertiliser Ordinance places a limit on the amount of nitrogen and phosphate that can be used by farmers. By restricting the quantity of fertiliser to the socially optimum level of Qs, whereby MSB=MSC, it compels producer to use less quantity of fertilisers at Qs. Due to loss aversion, farmers will adhere to the rules and regulation as they do not want to incur additional costs (i.e. fines) that will lower profits. Thus, DWL is eliminated, and allocative efficiency is achieved.



Or alternatively
Laws and regulations can reduce the MEC for the use of fertiliser

- Requiring the farmers to use other types of fertilisers that are more environmentally friendly, thus reducing the MEC.

- Diagrammatically, the MSC curve will fall, shifting closer to the MPC curve such that the new socially optimal quantity will increase towards the market equilibrium quantity Qf.
- Farmers make the decision to consume at **MPB=MPC** at Qs.
- Deadweight loss is eliminated, and allocative efficiency is achieved.

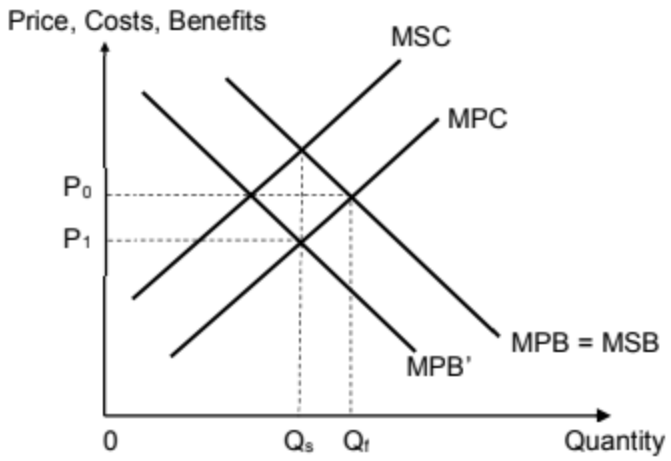


Evaluation 1: Limitation of rules and regulation, effectiveness of such regulations depends on the ability of the government to monitor and enforce compliance among farmers. Monitoring agricultural practices on a large scale can be resource-intensive and costly for the government.

Or however, the cost of switching to more sustainable way of farming such as " low emission techniques' may be high, especially to those with intensive livestock farming". Hence farmers may have to grow crops that require less nitrogen in order to stay within the nutrient limits, reducing their profit margin. Extract 3.1, Compliance cost vary widely among farms. Farmers might not adhere to the above rules and regulation in light of reduced profit margin.

Requirement 2: Singapore Government of providing subsidies for innovation (alternatives) and reduce the demand for fertiliser. Reduce the need to use fertilisers, reducing DWL and inefficiency.

To correct the negative externalities generated from the over-consumption of fertilisers, the Singapore government may promote an alternative market and give grants for innovation and adoption of hydroponics via the use of subsidies. Hydroponics uses less fertiliser compared to traditional soil-based farming. From Extract 5, Comcrop is able to recycle all of the exact nutrients for the crops. Demand of fertiliser decrease from MPB to MPB'.
Farmers consume at MPB'=MPC at Qs. Deadweight loss is eliminated and allocative efficiency is achieved.



Evaluation 2: Limitation of subsidies on alternative- Innovation, especially in agriculture, is often a gradual process. The development, testing, and widespread adoption of new technologies such as hydroponics can take several years, if not decades. During this time, the overuse of fertilizers and the associated negative externalities may continue, meaning that the reduction in deadweight loss and improvement in allocative efficiency may not be realized in the short to medium term.

Summative Evaluation:

Law and regulation implemented by Germany is effective in the SR as it has an immediacy effect to achieve efficiency.

Whereas, in the LR, the policy implemented by Singapore is better as it can achieve efficiency in reducing the usage of fertiliser and ensuring food sustainability in the long run as it address the root cause.

Marking Scheme

Knowledge, Understanding, Interpretation, Application and Analysis			
Level	**Analysis Level**	**Descriptors**	**Marks**
L2	A+A A+C C+C C+K A	Responses in this level will provide detailed analysis of the how measures adopted by Germany or Singapore can better address the misallocation of resources in the market for fertilisers, showing excellent ability to describe and explain relevant economic concepts, theories, and principles in a precise, logical and reasoned manner, with good use of extract evidence.	4-7
L1	C K+K K	Responses in this level will have some limited understanding of how measures adopted by Germany or	1-3

				Singapore can better address the misallocation of resources in the market for fertilisers. There may be some basic content errors and limited or no application of economic concepts, theories and principles to the context at hand.		

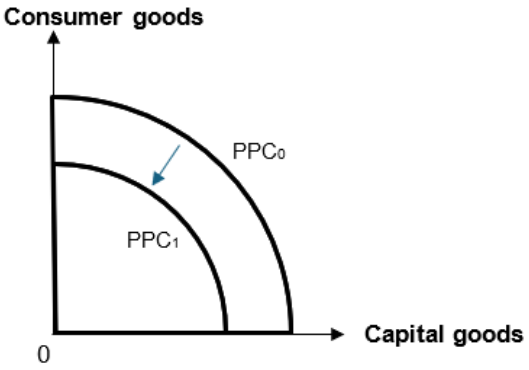
Evaluation

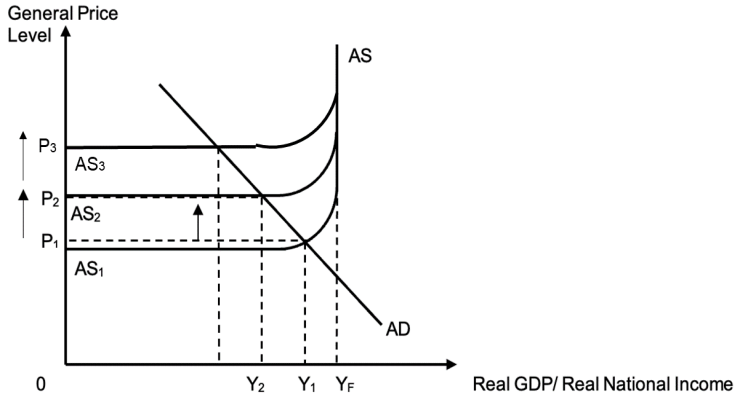
Level	Descriptors	Marks
E3	One well explained evaluative statement or two generic, weakly explained evaluative statements which are supported by the arguments presented in the answer. and a summative conclusion that addresses the question.	3
E2	One well explained evaluative statement or two generic, weakly explained evaluative statements which may not supported by the arguments presented in the answer.	2
E1	One evaluative statement that may be generic, weakly explained or not supported by the arguments presented in the answer.	1

[Total: 40]

CSQ2 Suggested Answers

(a)		**Using Tables 1 and 2, compare Sri Lanka's living standards both over time and compared with the other Asian economies. Comment on the effectiveness of these indicators as a measure of living standards.**	**[6]**
		Comparison over time ● Real GDP per capita growth rate = Nominal GDP per capita growth rate – Inflation rate. Table 1 shows that the Real GDP per capita growth rate has been negative throughout 2018 and 2022. [1] ● This suggest that there is negative actual economic growth, thus the purchasing power of Sri Lankan citizens have been falling, which has led to a fall in the material standard of living over time. [1] Comparison over space ● The HDI is a composite index that includes the country's life expectancy, years in education and per capita income indicators. Within the selected Asian economy in Table 2, Sri Lanka has the lowest HDI with the exception of Timor Leste. [1] ● This suggests that Sri Lankan citizen has a much lower quality of life as they have lower life expectancy and years in education. Thus, Sri Lanka has a lower non-material SOL as compared to other Asian economies, with the exception of Timor Leste. [1] Comment [2] ● Inaccuracy in calculating GDP such as presence of non-market activities and existence of informal economy will lead to underestimation of the GDP. Hence, there will be some inaccuracy of using the nominal GDP per capita provided in Table 1 to determine the change of material SOL over time. OR ● The HDI only considers the country's life expectancy and years in education. As such, we may need additional information such as crime rates, pollution index and quantity of leisure hours to have a holistic comparison of the quality of life before we can make a judgement on Sri Lanka's non-material SOL as compared to other Asian economies. **Note:** Comparision of relative effectiveness between two indicators is also acceptable.	
(b)		**Using a PPC diagram, explain the impact of Sri Lankan workers "leaving for employment abroad" (Extract 5) on its economic growth.**	**[3]**
		Link to QQT factor ● Extract 5 states that Sri Lanka is experiencing brain drain where educated workers are leaving the economy. This suggests that Sri	

		Lanka may experience fall in quantity of labour. The country's productive capacity decreases, as there is a fall in the maximum possible output of the economy. [1] <u>Shift of PPC and link to PEG</u> ● There is a fall in potential economic growth. This is illustrated with an inward shift of the PPC curve from PPC0 to PPC1. [1] <u>Well-labelled & well-referenced PPC diagram [1]</u>  	
(c)		**With reference to Figure 4, explain how the changes in inflation in Turkey in 2022 are likely to have affected the value of the Turkish Lira.**	**[3]**
		<u>Identify the trend in Figure 4</u> ● Figure 4 shows that a rise in inflation has led to a depreciation of the Turkish Lira, against the USD. [1] <u>Explain how inflation may affect exports</u> ● This will cause the price of Turkish domestically produced goods to be more expensive. A relatively higher price of Turkish exports will lead to a more than proportionate fall in the quantity demanded of exports, assuming PEDx>1. [1] ● This will lead to a rise in supply for the Turkish Lira in the foreign exchange market, leading to a depreciation of the Turkish Lira against the USD. [1] OR <u>Explain how inflation may affect imports</u> ● Change in imports (& idea of switching): Given that domestic goods and imports are substitutes, the relatively higher price of domestic goods will lead to Turkish citizens switching consumption from domestic goods to imported goods, the demand for imports will rise. [1] ● This will lead to a rise in supply for the Turkish Lira in the foreign exchange market, leading to a depreciation of the Turkish Lira against the USD. [1] OR	

		Explain how inflation may affect confidence in the economy ● Effect on hot money: A rise in inflation would lead to a fall in economic confidence in Turkey, which would lead to an outflow of hot money. [1] ● This will lead to a rise in supply for the Turkish Lira in the foreign exchange market, leading to a depreciation of the Turkish Lira against the USD. [1]	
(d)	**(i)**	**Using examples from Extract 7 and an AD-AS diagram, explain one internal cause and one external cause of inflation in Singapore.**	**[5]**
		Identify the internal cause and external cause using Extract 7 ● The external source of inflation is the higher energy costs caused by the Russia-Ukraine war and supply chain disruptions as many countries bounced back economically from the impact of Covid-19. This shows the disruption in global supply of raw materials and food has led to higher price of imported factor inputs. [1] ● The domestic source of inflation could be either: higher wage, GST hike, increase in carbon prices, public transport fares and water prices; OR a rise in fiscal support measures during the COVID-19 pandemic. [1] Explain the effect on SRAS or AD ● Both factors would cause an increase in the unit the cost of production. SRAS decreases and SRAS curve shifts upwards from SRAS1 to SRAS2. [1] OR ● A rise in government fiscal expenditure will lead to a rise in AD, and the AD curve will shift rightwards from AD1 to AD2. Price adjustment process ● The upward shift in SRAS from AS1 to AS2 (Figure 1) will create a shortage at the initial equilibrium GPL, exerting an upward pressure on GPL until the shortage is eliminated. A higher equilibrium GPL is attained at P2, resulting in cost push inflation. [1] Well-labelled & well-referenced AS-AS diagram [1]  	

		Note: A well-labelled diagram showing an increase in fiscal spending leading to a rise in government expenditure, and AD is also acceptable.	
	(ii)	**Explain how the strengthening of the Singapore dollar to combat inflation may lead to undesirable short-term consequences on employment and living standards.**	**[5]**
		<u>Explain how an appreciation affects AD</u> The strengthening of the Singapore dollar will lead to a rise in the price of exports in foreign currency, and a fall in the price of imports in Singapore dollars. [1] This will lead to a fall in the demand for exports and rise in the quantity demanded for imports. Thus, this leads to a fall in net exports, which results in a fall in AD. [1] <u>Impact on employment</u> The fall in AD will also lead to a fall in the level of production. As such, the derived demand for labour will fall, leading to a rise in demand-deficient unemployment. [1] <u>Impact on material SOL</u> A fall in AD will lead to a multiplied decrease in RNY, via the multiplier process. This would lead to a fall in purchasing power, and a fall in material SOL, assuming that the population remains constant. [1] <u>Impact on non-material SOL</u> As the RNY has fallen, consumers in Singapore may no longer be able to access certain goods such as healthcare or education; their quality of life may worsen, and this would lead to a fall in non-material SOL. [1] DO NOT ACCEPT: Appreciation will lead to SRAS to increase, as it would lead to a desirable effect.	
(e)		**Extract 6 states that despite the runaway inflation in Turkey, the central bank has continued its low interest rate policy to achieve growth. At the same time, other central banks are taking a contractionary approach to taming inflation.** **Discuss whether achieving economic growth or addressing inflation should be the main priority of governments.**	**[8]**

Question Interpretation

Command	Discuss – two-sided answer with a well-reasoned conclusion
Content	Priorities – Economic Growth or Inflation (compare benefits and costs)
Context	No context, but students may refer to the various economies in Extract (e.g. Turkey, Singapore, Sri Lanka)
Approach	
Requirement 1	**Requirement 2**
Benefits attained if the government achieves Economic Growth	Benefits attained if the government addresses Inflation
Evaluation 1	**Evaluation 2**
Extent of benefits / possible unintended consequences of the policy decision	Extent of benefits / possible unintended consequences of the policy decision
Summative Conclusion	
Which macroeconomic goal should be the priority of the government?	

Introduction:

Contexualisation: Faced with slow or negative economic growth and inflation, different countries may pursue different objectives, with some focusing on increasing growth and others of reducing inflation.

Overview: In this question, I will analyse if achieving economic growth or addressing inflation should be the main priority of governments.

Requirement 1: Benefits attained if the government achieves economic growth

Higher rates of economic growth may benefit the economy by lowering unemployment and improving standard of living in the country.

Higher rates of economic growth will result in greater investor confidence which will lead to an increase in I as expected rates of return on investment increases. This will result in an increase in AD, ceteris paribus from AD1 to AD2 as shown in Figure 1. Assuming the economy is operating below full employment, firms will increase employment to increase output. This will lead to an increase in national income which will increase income induced consumption and result in a further increase in AD. This will trigger successive rounds of increases in national income and income induced consumption resulting in a multiplied increase in real national income from Y1 to Y3 via the multiplier process.

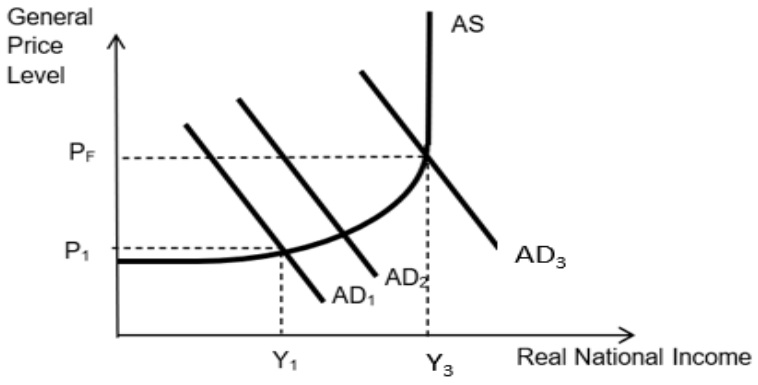


Figure 1

The increase in national output from Y1 to Y3 would result in an increase in derived demand for all factors of production including labour. This would result in a decrease in demand deficient unemployment, reducing unemployment rates in the economy.

In addition, assuming that the rate of increase in RNY is greater than the rate of increase in population, this would result in an increase in RNY per capita. This would increase purchasing power, increasing the ability of a average person to consume goods and services. This would increase the material standard of living of people in the country. In addition, the fall in unemployment rate may also reduce social problems like crime rates, increasing the level of safety and security felt by the people. This would improve the quality of life and therefore increase the non-material standard of living.

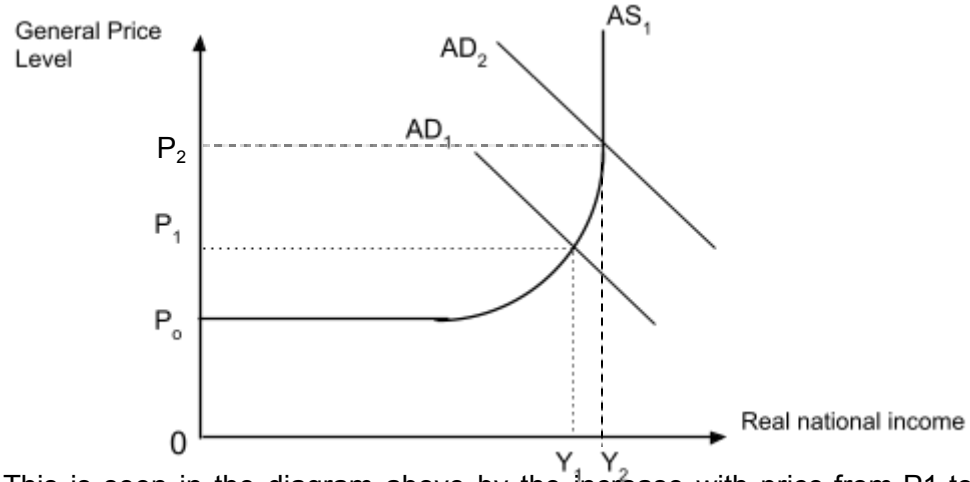
Note: students may also explain how the increase in tax revenue collected by the government may improve the non-material standard of living

Evaluation 1: Extent of benefits / possible unintended consequences of the policy decision

However, if the high rates of EG are due to adoption of technology which can displace workers, it could lead to structural unemployment. Growth often involves changes in production in terms of the goods produced and techniques used. This will lead to structural changes as more machines are likely to be used which makes certain production methods obsolete and also makes people redundant. New skills are required as the economy transforms and moves up the value-added chain. Skills used in the sunset industries will become obsolete. Workers who are unemployed due to the decline in the sunset industries may not be able to move into the new industries (i.e. occupational immobility) as there is a mismatch of skills and jobs. The result is structural unemployment.

Note: Students could also link to worsening income inequality and non-inclusive economic growth.

If the economy is already at or very close to full employment level, any increases in investment on capital good will cause demand pull inflation. This may arise in the short run AD continues to rise while AS is constant.



This is seen in the diagram above by the increase with price from P1 to P2 with negligible increase in RNY from Y1 to Y2 when AD increase from AD1 to AD2 close to the classical portion of the AS curve. Thus, high rates of growth may give rise to price instability. This may reduce confidence in the economy, resulting in lower investments and net exports resulting in slower or even negative growth in the next period.

With economic growth, firms will increase the level of output that they may produce. This increase in production may result in longer working hours with less leisure time and more pollution, resulting in worsening of the MEW and HDI, ceteris paribus. The higher pollution may also make the economic growth less sustainable due to the depletion of environment and resources for future generations.

Requirement 2: Benefits attained if the government addresses inflation (Any 2)

If the government address inflation and keeps it low, this may result in higher material standard of living for people in the country. If the increase in general price level is lower than the increase in national income, this will increase purchasing power. The households will be able to purchase more goods and services, resulting in an increase in the material standard of living of the residents in the country.

Moreover, with low inflation rates such that inflation rate in the country is lower than inflation rates in trading partner countries, this will increase relative export competitiveness. Assuming PEDx >1, the relatively lower price of exports will lead to a more than proportionate increase in quantity demand of exports, resulting in higher export revenue. Assuming import expenditure remains unchanged, net exports and AD will increase ceteris paribus. As described above for using Figure 1, assuming the economy is operating below full capacity, the increase in AD will result in a multiplied increased in RNY,

resulting in higher rates of actual economic growth and a reduction in demand deficient unemployment.

Low rates of inflation would also result in certainty in decision making for firms, increasing confidence level in the economy. In addition, if the low rate of inflation is due to an increase in AD, this will result in costs lagging behind revenue in the short run. These will increase expected rate of return to investment, increasing investment. This will result in an increase in AD, ceteris paribus. As described above for using Figure 1, assuming the economy is operating below full capacity, the increase in AD will result in a multiplied increased in RNY, resulting in higher rates of actual economic growth and a reduction in demand deficient unemployment.

Low rates of inflation with increase in prices < increase in income would Improve equity in the provision of essential goods and services which will remain affordable.

Evaluation 2: Extent of benefits / possible unintended consequences of the policy decision

If policies are too successful in reducing AD to lower inflation, this may result in too great a fall in AD, resulting in deflation / very low rates of inflation. With such low rates of inflation, consumers cutting back on consumption waiting for prices to fall in the future. This would cause a decrease in AD, ceteris paribus, resulting in a fall in RNY via the reverse multiplier process, causing a recession / negative actual economic growth. In addition, the fall in RNY, will reduce the derived demand for labour, resulting in an increase in demand deficient unemployment.

Summative Conclusion: Which macroeconomic goal should be the priority of the government?

Stand & Substantiation: Whether the government pursues high growth of low inflation may depends on the priority of the government. In the case, Turkey seems to be more focused on promoting growth while Singapore on reducing inflation. In the current scenario, slower growth seems to stem from the high cost-push inflation globally due to sully chain disruptions. Given this, countries should focus on reducing inflation and this would help to increase the rate of growth.

Marking Scheme

Knowledge, Understanding, Interpretation, Application and Analysis			
Level	**Analysis Level**	**Descriptors**	**Marks**
L2	A+A A+C C+C C+K A	Responses in this level will provide detailed analysis of the benefits of the government achieving economic growth and addressing inflation, showing excellent ability to describe and explain relevant economic concepts, theories,	4-6

			and principles in a precise, logical and reasoned manner, with good use of extract evidence.		
	L1	C K+K K	Responses in this level will have some limited understanding of the benefits of the government achieving economic growth and/or addressing inflation. There may be some basic content errors and limited or no application of economic concepts, theories and principles to the context at hand.	1-3	

Evaluation

Level	Descriptors	Marks
E2	One well explained evaluative statement or two weakly explained evaluative statements and a short summative conclusion that addresses the question.	2
E1	One evaluative statement that may be generic, weakly explained or not supported by the arguments presented in the answer.	1

(f) **Discuss whether 'bold tax reforms' or 'supply side measures' (Extract 5) would be best for Sri Lanka to pursue sustained economic growth whilst maintaining fiscal sustainability.** **[10]**

Question Interpretation

Command	Discuss – two-sided answer with a well-reasoned conclusion
Content	Policies to achieve sustained economic growth (i.e. actual economic growth, potential economic growth) & increased fiscal sustainability (e.g. improve budget balance, reduce debts)
Context	Sri Lanka
Approach	
Requirement 1	**Requirement 2**
Fiscal policies such as tax reform can achieve sustained economic growth and maintain fiscal sustainability	Supply side measures can achieve sustained economic growth and maintain fiscal sustainability
Evaluation 1	**Evaluation 2**
Limitations of fiscal policies such as tax reform	Limitations of supply side measures
Summative Conclusion	

Which policy is the best for Sri Lanka to achieve sustained economic growth and maintain fiscal sustainability?

Introduction:

Sri Lankan crisis has arisen due to the multiple problems faced by Sri Lanka which includes: recession, increased borrowing and high levels of government debt. In addition to loans taken from China & India, Sri Lanka had to borrow further from IMF and WB to implement policies that would help the economy come out of the crisis stronger.

Requirement 1: Fiscal policies such as tax reform can achieve sustained economic growth and maintain fiscal sustainability

In the short run, higher taxes on higher income group, will increase tax revenue for the government that can be used to provide transfer payments to low income households, redistributing income from the rich to the poor. This will increase C as the lower income households have higher MPC. This will increase in AD, c.p. as seen in Figure 1 above, resulting in a multiplied increase in RNY via the multiplier process, resulting in positive actual economic growth.

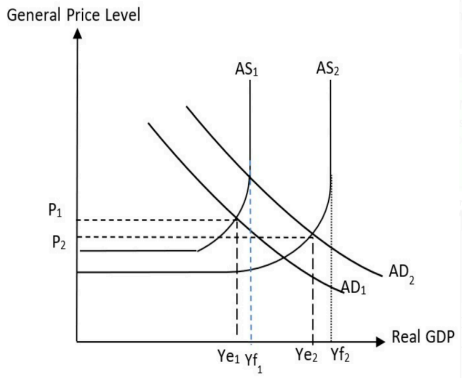
In addition, the higher VAT and import duties will further help to increase governments' revenue which will enable the government to better be able to repay for debts incurred. As a result, the debt to GDP ratios falls, improving fiscal sustainability.

In the long run, with lower debts, there would be greater confidence in the economy, resulting in increases investments and consumption, resulting in further increases in AD, c.p., causing a multiplied increase in RNY. This would result in further actual economic growth of the Sri Lankan economy.

In addition, the higher investment would result in an increase in the quantity of capital, improving the quantity and quality of resources.

OR

The higher tax revenue could also be spent on training workers which would increase AD further as well as improve the quality of workers in Sri Lanka, increasing the quality of resources.



This will increase productivity, lowering unit cost of production as well increasing productive capacity, This would shift the SRAS and LRAS to the right, resulting in actual economic growth from Ye1 to Ye2 and potential economic growth from Yf1 to Yf2.

With the increase in RNY, the government would be able to generate more tax revenue generated through both direct and indirect taxes. This would increase Sri Lanka's ability to pay off debts, improving fiscal sustainability.

Evaluation 1: Limitations of fiscal policies such as tax reform

In the SR, the VAT and import duties are likely to increase unit cost of production, decreasing SRAS. This is likely to cause a fall in RNY and increase in unemployment. worsen economic growth. This could also lead to cost-push inflation.

Increase in taxes on high income group, may result in lower investments as it is usually the higher income earners who are factor owners who are likely to invest. With less disposable income, they may cut back on investments. If the fall in investment due to higher taxes of higher income group is greater than the rise in C, this is likely to have a contractionary effect on economy and worsen fiscal sustainability.

The desired effect on EG may also not be achieved in the LR if confidence level does not increase. As such, C and I may not increase significantly, resulting in lower rates of EG. With lower rates of economic growth, tax revenue generated may also increase insignificantly, limiting the government's ability to pay off debts adequately.

Requirement 2: Supply side measures can achieve sustained economic growth and maintain fiscal sustainability

In the short run, privatisation may result in an increase in investment by private entities into these state-owned firms. If the increase in I exceeds the fall in G , there is likely to be a net increase in AD, c.p., resulting in a multiplied increase in RNY and actual economic growth, assuming the economy is currently operating below full employment. In addition, due to profit motive, privatisation is likely to increase efficiency in production, decreasing unit cost

of production. This would increase SRAS, resulting in a further increase in RNY and therefore an increase in actual economic growth.

Privatisation will also reduce the burden on the government to support the state-owned industries. With less money spent to support the state-owned industries that have been privatised, this would cause a fall in G. This would improve in government budget position, improving fiscal sustainability.

Increase in government spending on infrastructure would increase in AD, c.p., resulting in a multiplied increase in RNY via the multiplier effect, and therefore actual economic growth.

In the long run, the improved infrastructure would improve outlook on the Sri Lankan economy, increasing investments and consumption. This would result in an increase in AD, c.p., causing a multiplied increase in RNY and actual economic growth.

The improved infrastructure would increase capital stock, increasing quantity and quality of resources. This would increase the output produced per worker,

OR

The higher tax revenue from taxes collected due to increase in RNY could be spent on skills retraining and upgrading, improving the quality of labour goods. This would increase the output produced per worker.Thus, unit cost of production would fall and productive capacity would increase, increasing SRAS and LRAS, resulting in further actual economic growth and potential economic growth, resulting in sustained economic growth.

The increase in RNY due to actual economic growth would increase in tax revenue generated through direct and indirect taxes, increasing the government's ability to pay off debts, improving fiscal sustainability.

Evaluation 2: Limitations of supply side measures

- However, if due to privatization, the fall in G > increase in I, this will result in an overall fall in AD, c.p., causing a multiplied fall in RNY and negative AEG. This may also reduce fiscal sustainability in the SR as the government tax revenue may fall.
- The desired effect on EG may also not be achieved in the LR if confidence level does not increase. If confidence does not improve, I may not increase significantly, resulting in lower rates of EG. As such, tax revenue generated may also increase insignificantly, limiting the government's ability to pay off debts adequately.
- The increase in G may worsen the budget position in the short-run worsening the fiscal sustainability.

Summative Conclusion: Which policy is the best for Sri Lanka to achieve sustained economic growth and maintain fiscal sustainability?

Stand & Substantiation [Situation of STRAWS]: Given the large size of public debt owed by Sri Lanka, the government must have a combination of

both the policies that increase government revenue and reduce expenditure both in the SR and LR. Government should ensure productive use of the money lent in order to the country growth as well as debts are reduced as a percentage of GDP.

Marking Scheme

Knowledge, Understanding, Interpretation, Application and Analysis			
Level	**Analysis Level**	**Descriptors**	**Marks**
L2	A+A A+C C+C C+K A	Responses in this level will provide detailed analysis of the how bold tax reforms and supply-side measures may help Sri Lanka to achieve sustained economic growth, whilst maintaining fiscal sustainability, showing excellent ability to describe and explain relevant economic concepts, theories, and principles in a precise, logical and reasoned manner, with good use of extract evidence.	4-7
L1	C K+K K	Responses in this level will have some limited understanding of how bold tax reforms and/or supply-side measures may help Sri Lanka to achieve sustained economic growth, whilst maintaining fiscal sustainability. There may be some basic content errors and limited or no application of economic concepts, theories and principles to the context at hand.	1-3

Evaluation

Level	Descriptors	Marks
E3	One well explained evaluative statement or two generic, weakly explained evaluative statements which are supported by the arguments presented in the answer. and a summative conclusion that addresses the question.	3
E2	One well explained evaluative statement or two generic, weakly explained evaluative statements which may not supported by the arguments presented in the answer.	2
E1	One evaluative statement that may be generic, weakly explained or not supported by the arguments presented in the answer.	1

[Total: 40]