



**Catholic Junior College
JC2 Preliminary Examinations
Higher 2**

ECONOMICS

9757/01

Paper 1

24 August 2022

No Additional Materials are required.

2 hours 15 minutes

READ THESE INSTRUCTIONS FIRST

An answer booklet will be provided with this question paper.

You should follow the instructions on the front cover of the answer booklet.

If you need additional answer paper, ask the invigilator for a continuation booklet.

Answer **ALL** questions.

The number of marks is given in brackets [] at the end of each question or part question.

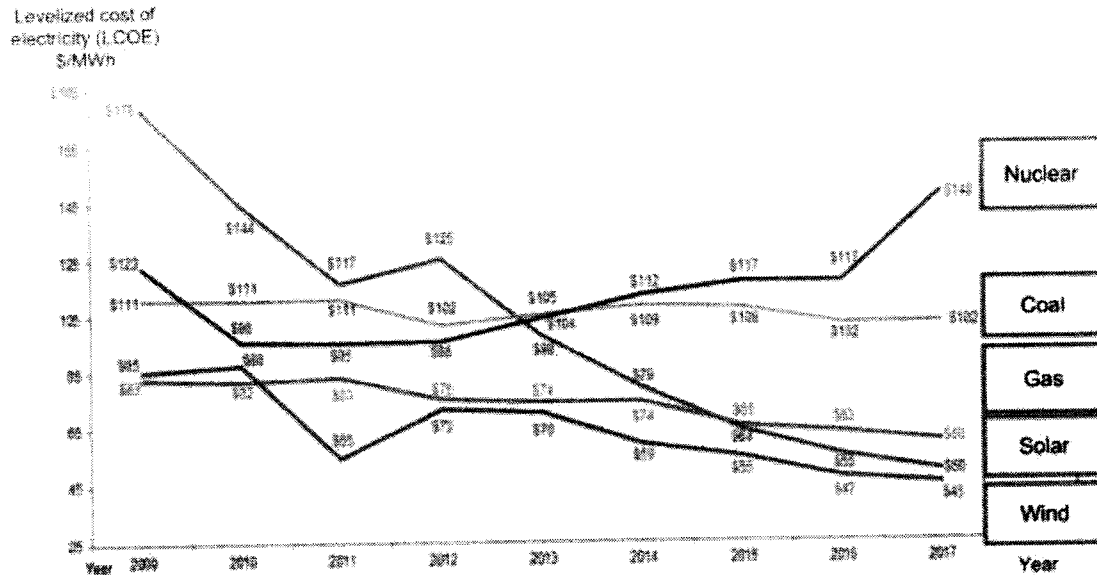
This document consists of **9** printed pages and **1** blank page

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Answer all questions

Question 1: Issues and Prospects in the Market for Energy

Figure 1: America's Energy Prices from 2009 to 2017



Source: *Lazard*, 2018

Note: Levelized cost of electricity (LCOE) is the electricity generation cost per unit of energy, usually Euro (or US\$) per MWh.

Non-renewable energy sources include nuclear, coal and gas. Renewable energy sources include solar and wind.

Extract 1: Renewable Energy Prices Hit Record Low

Lazard's most recent LCOE analysis showed a sharp fall in U.S. renewable energy prices in 2019, with wind and solar hitting new lows, after renewables fell below the cost of coal in 2018. LCOE measures the total cost of building and operating a facility over its lifetime and shows renewables beating fossil fuels by ever-larger margins – even without subsidies – with that trend forecast to continue for decades to come.

Why have renewable energy prices plummeted so quickly? Capacity installation trends is one of the reasons that reflect this economic reality, with new wind and solar generation coming online at a breakneck pace. Wind power capacity in the U.S. has more than doubled since 2010 and reached nearly 100 GW in 2018. This was made possible by innovations such as Solar photovoltaics (PV) – the conversion of light into electricity using semiconducting materials – which enabled installation project costs to fall significantly.

Source: *Forbes*, 2020

Extract 2: Why Markets May Not Favour Clean Energy?

The world has widely acknowledged the need to transit into greener sources of energy. However, adoption rate seems to be less than ideal. It is important to understand that there are two fundamental issues in the research and development of clean energy technologies. First, the invisible hand of the market produces too little innovation because individual companies cannot capture the full value of investing in the research and development of clean technology.

Second, greenhouse gas emissions from the burning of fossil fuels constitute an “externality,” or unintended consequence, because the costs of climate change are borne by parties other than the emitters. Hence, current market prices for fossil fuels don’t reflect the full social cost of their consumption. With the “mispricing” of fossil fuels, the invisible hand of the market suppresses demand for alternative energy technologies that are substitutes for fossil fuel technologies.

To overcome the market failure in knowledge creation, the government needs to fund and invest in basic research and provide subsidies and tax incentives for corporate investment of R&D in energy innovation.

The government also needs to address the issue of the “mispricing” of fossil fuels. It may impose a tax on carbon or a “cap and trade” system that alters prices to reflect more adequately the environmental costs. Or it could enact a specific regulatory requirement (such as emission or performance targets) to correct the failure. Such policies would create a higher demand for low-emission technologies and provide incentives for private investment in climate-friendly technologies.

Source: *Various*

Extract 3: Too Soon to Sunset Renewable Energy Subsidies?

Renewable energy is starting to lose its subsidies because it has proved that it can be as cheap or even cheaper than fossil fuels. But while wind and solar power rates can cost less than traditional fuels, the subsidies are masking another problem — one that is becoming apparent as the subsidies are eliminated.

Where coal and gas generators can ramp up production easily to accommodate peaks in demand and pull back when there’s a dip, wind and solar energy cannot. There’s solar when the sun shines and wind power when there are strong winds. That often prevents renewable energy producers from benefiting from attractive prices that accompany peaks. Sometimes they even find themselves producing when there is an oversupply, selling power for cut-rate or even negative prices — essentially paying customers to take their energy.

The intermittent nature of wind and solar means that renewable operations are likely to systematically receive a lower overall market price than the average generator. While volume-based subsidies currently smooth out this problem, returns on investment will likely begin to decline once operators in systems with large-scale dependence on renewable energy can no longer depend on them. No subsidies may mean that many renewable producers will become no longer financially viable, and the current effort to switch global power generation to renewable sources may be undermined. Furthermore, a lack of subsidies may also heighten prices for consumers and reduce uptake of renewable energy amongst them.

Building storage for renewable energy would allow producers to match supply and demand as fossil fuel generators do and make pricing more predictable. Problem solved? Not quite. While storage sounds like a simple solution, it comes with its own costs, and while these have dropped dramatically in recent years, they still represent a significant, additional burden for renewable energy projects.

Source: *Forbes*, 2020

Extract 4: Trends and Development in the Cleantech Industry

There's lots to be excited for in the Cleantech Industry which spans several industry verticals, including renewable energy generation, energy storage, energy efficiency, transportation, air and environment, clean industry, water and agriculture.

Now, proactive public policy is lining up with a growing appetite for cleantech among investors and surging demand for sustainable consumer products. Furthermore, clean technologies are rapidly moving toward mainstream adoption. Our increased capacity to embrace change, the disruptive nature of cleantech, and the increasing green policies of governments are all influencing the diffusion of clean technology innovations. This coalescence of factors is really important. It means that now is the time for climate and cleantech companies to execute.

This spike in interest, as well as the resulting increase in investment may bring the desired possibilities flowing into the clean energy industry, boosting the market value of clean energy technology. However, in the meantime, the high costs of generating power from renewable energy sources are the most significant obstacle. Setting up and storing renewable energy generation facilities requires a huge financial outlay and thus presents significant barriers to entry for many. This has resulted in a few large firms maintaining their foothold in the market. Furthermore, renewable energy technologies are still significantly new to the market, meaning, they still lack the much-needed efficiency. Lack of sufficient knowledge on how to effectively harness these forms of energy makes the installation and maintenance cost for such facilities quite high.

However, in future, technical developments that increased production efficiency as well as the increased scale of operations in this industry have paved the way for lower-cost power generating technologies, which are likely to lead to reduction in prices in future.

Source: *Various*

Questions

- (a) (i) With reference to Extract 1, identify a supply factor and explain how it could explain the falling renewable energy prices. [2]
- (ii) Using a diagram, explain how the above change is likely to affect consumer surplus. [2]
- (b) (i) Based on Figure 1, identify a similarity between the price changes of coal and sources of renewable energy. [1]
- (ii) State a likely value of the cross elasticity of demand between coal and sources of renewable energy and explain how the similarity in the trend of price changes is possible. [3]
- (c) Consider what the author of Extract 2 means by “mispricing” of fossil fuels and explain how this might cause the market for fossil fuels to fail. [4]
- (d) Assess the relative importance of various factors the government will consider in deciding to remove the subsidies for renewable energy. [8]
- (e) With reference to Extract 4 and the market structure of the Cleantech Industry, discuss the extent to which surging demand and technical developments in the Cleantech industry are likely to benefit producers and consumers. [10]

[Total: 30]

Question 2: Challenges and Opportunities for Singapore and China**Table 1: Components of Current Account Balance of Singapore (in \$billions)**

Balances (in \$bn)	2019	2020
80.2		
Goods Balance	133.9	143.0
- Export of goods	603.8	576.0
- Import of goods	469.9	433.0
Services Balance	13.3	8.1
- Export of services	293.9	289.3
- Import of services	280.6	281.2

Source: Singstat, 2020

Extract 5: Surviving supply chain shocks caused by Covid-19 pandemic

One of the most striking impacts of the Covid-19 outbreak is the harsh way it has exposed the weaknesses in supply chains for businesses around the world which has hampered international trade. Many were caught out amid panic buying of daily necessities, such as toilet paper, some food items, and most tragic of all, the scarcity of life-saving drugs, ventilators, masks and personal protective equipment. Despite decades spent fine-tuning supply chains, most companies found themselves struggling to fulfil their needs for raw materials or finished products. Even operationally savvy firms scrambled as lockdowns spread throughout the world.

When the first case of Covid-19 emerged in China, Micron Technology already kicked into action by taking steps to protect its supply of raw materials. The world's leading producer of data memory and storage technologies and solutions also increased the flexibility of its supply chains to ensure it could deliver orders to customers on time. As factories were closed in China, the firm started working with local suppliers to procure materials and try to fabricate semi-finished products on its own. It also tapped digital tools, such as YouTube marketing, search engine marketing and display ads, to reach clients and markets

Source: adapted from *Enterprise Singapore*, 2020

Extract 6: Singaporeans can overcome the challenges of 2020 and emerge stronger

The Covid-19 pandemic has presented new challenges in Singapore, having to reassess the way people organise their lives, work and businesses as there is no going back to the pre-Covid-19 period. This is coupled with issues such as an aging workforce, maturing economy, growing influence of social media, and increasing competition from other trade agreements and ASEAN partners. In her New Year message, President Halimah Yacob also said that Singapore was still experiencing economic headwinds induced by the pandemic. She said that with concerted efforts, a full recovery may take one or two years - and even then, the next decade will see slower growth with higher expenditure. "We must continue to make critical investments in our infrastructure and skills development to attract new investments and create new jobs," Madam Halimah added.

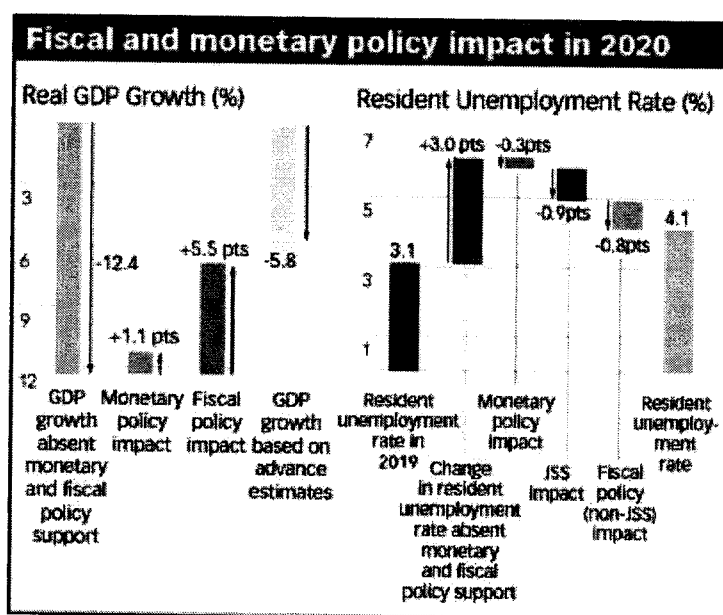
Madam Halimah also pointed out that Singapore, like other countries struggling with tight fiscal positions, has had to dip into past reserves to support affected businesses and workers. The Government has passed nearly \$100 billion of relief measures over an unprecedented four

budgets this year - with up to \$52 billion drawn from the reserves. "Going forward, the Government's fiscal position will continue to be very tight, but we also cannot adopt policies that will cause the economy to contract, which can delay our recovery," said Madam Halimah. "It's a fine balance with the people's interest at our core in whatever we do."

Covid-19 has also presented opportunities for Singapore. It has accelerated the use of technology, and long-term challenges such as climate change have gained a new impetus. Countries are using the opportunity to reshape their recovery towards a more green and sustainable economy, working towards a more resilient Singapore.

Source: adapted from *The Straits Times*, 29 Dec 2020

Figure 2: Impact of policy measures on Singapore



*JSS – Job Support Scheme

Sources: MAS estimates, MTI, MOM, 2020

Extract 7: Inequality in China – Trends and Drivers

China has experienced rapid economic growth over the past two decades and is on the brink of eradicating poverty. However, economic growth has not benefited all segments of the population equally, causing income disparities and thus, a rising Gini coefficient over the past two decades.

Despite significant progress, China also faces considerable inequality in opportunities, such as completion of higher tertiary education and access to certain financial services. While China managed to drastically increase secondary and tertiary enrolment ratios since the 1980s, in 2010, tertiary education was more unequally distributed than in other emerging and advanced economies. With rapid technological transformation and fast capital accumulation, demand for workers shifted from low to high-skilled labour. As such, tertiary education graduates greatly

benefited at the expense of greater wage inequality. This concern calls for government action to quell the rising income inequality, if not, structural changes will keep such disparities elevated in the foreseeable future.

Source: *IMF*, 2018

Extract 8: RCEP FTA Signed: What Can Foreign Investors in China Expect?

China and 14 other countries signed the Regional Comprehensive Economic Partnership (RCEP) Agreement, formalizing the largest free trade agreement (FTA) in history. The landmark agreement will deliver substantial new trade and investment opportunities within the participating countries and form Asia's largest trade bloc to date. The Chinese Premier, Li Keqiang, described the deal as "a victory of multilateralism and free trade" and stated that the new agreement is "critical to the region's response to the COVID-19 pandemic."

For investors operating across ASEAN, China, and other regions – RCEP offers good news. Streamlined customs procedures, unified rule of origin, and improved market access will make investing in multiple locations – a much more viable and attractive investment strategy. This will lower costs for companies with supply chains that span across Asia and may encourage multinationals to RCEP countries to establish supply chains across the bloc, thus growing the global value chain activity in the region.

This new trading bloc will also see a larger flow of goods from countries where production costs are high, such as Australia, Japan and Singapore to countries with lower labor costs, such as Cambodia, Laos, and Myanmar. The benefit of cheaper goods will spread throughout ASEAN and the other RCEP members as well as filter through to consumers in Europe and the United States.

However, as many RCEP countries already have existing bilateral free trade agreements, the biggest trade impact will be on countries that do not currently have a bilateral agreement between them such as: Japan-China, Japan-South Korea, and Japan-New Zealand. For China, Japan is its second largest trading partner after the US. According to an analysis by DBS Bank, for China, tariff savings on imports from Japan will amount to a significant US\$ 7.3 billion across the segments of transportation equipment, machinery & electrical equipment, chemicals, plastics & rubbers, and metals. However, considering China's size, this will translate to a net impact of approximately 0.05 percent of GDP.

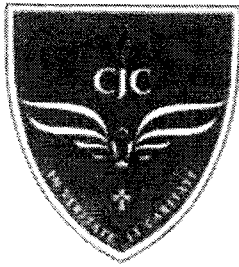
Source: *China Briefing*, 2020

Questions

- (a) (i) Explain whether the information in Table 1 is sufficient to explain the changes in the current account of the balance of payment of Singapore. [2]
- (ii) Using Extract 5, explain how the current account of the balance of payments of Singapore is likely to be affected by lockdowns of the economies. [2]
- (b) Using a Production Possibilities Curve, explain the likely impact of supply chain disruptions on Singapore's economic growth. [4]
- (c) With reference to Extract 7, explain how "structural factors" have resulted in the rising Gini coefficient in China over the past two decades. [4]
- (d) Using Extract 6 and Figure 2, discuss whether the use of technology is most effective in making the Singapore economy more resilient in this current economic landscape. [8]
- (e) Assess whether the signing of the Regional Comprehensive Economic Partnership Agreement is likely to, on balance, benefit China's trading partners. [10]

[Total: 30]

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Catholic Junior College
JC2 Preliminary Examination
Higher 2

ECONOMICS

9757/02

Paper 2 Essays

12 Sept 2022

No Additional Materials are required.

2 hours 15 minutes

READ THESE INSTRUCTIONS FIRST

An answer booklet will be provided with this question paper. You should follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B and **one** from **either** Section A or Section B.

The number of marks is given in brackets [] at the end of each question or part question.

This document consists of **3** printed pages and **1** blank page.

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Answer **three** questions in total.

Section A

One or two of your three chosen questions must be from this section.

1. Light-emitting diode (LED) screens, an essential input for monitors, television, smartphones, etc. are in short supply due to COVID-19 lockdowns while demand for work-from-home technology increased exponentially. The shortage aggravated by the US-China "trade war" of the Trump years caused a steep increase in LED screen prices and continued to cripple the world's economy.

Source: *Various*

- (a) Explain why a shortage of LED screens might occur due to the above events and how this will lead to a drastic increase in price. **[10]**
- (b) Discuss the alternative strategies firms producing electronic devices could use to improve producer outcomes. **[15]**

2. Korean Air Lines, a market leader in the country's industry, says it will take over smaller rival Asiana Airlines in a government-backed deal aimed at helping the country's two largest carriers survive the coronavirus pandemic. This could however involve layoffs of existing workers from both carriers in an effort to make the airline more cost-effective by streamlining processes.

Source: *Various*

- (a) Explain one reason why consumers might be better off and one reason why consumers might be worse off from Korean Air Lines' potential takeover of Asiana Airlines. **[10]**
- (b) Discuss if the existing competitors of the newly merged firm will benefit if the above deal were to succeed. **[15]**

3. Poor understanding of the benefits of healthcare will result in the underuse of the service.

- (a) Explain how rational consumers make decisions about the consumption of healthcare services and one reason why consumers' decisions may result in an inefficient allocation of resources. **[10]**
- (b) Discuss whether free provision in the healthcare market can ever be justified as a way to achieve a more desirable outcome in the market. **[15]**

Section B

One or two of your three chosen questions must be from this section.

4. The Singapore economy contracted by 4.1 percent due to weakened external demand and significant global uncertainties. In response, the government committed close to \$100 billion in support of households and firms in the form of cash payouts, Wage Credit Scheme and various public health management measures.

Source: adapted from *Ministry of Finance*, Singapore, 2020

- (a) Explain the likely effects of the weakened external demand and global uncertainties on the components of the circular flow of income and the equilibrium level of national income. [10]
- (b) Assess whether the above policy measures are sufficient to improve the standard of living of the population in Singapore. [15]

5. While there was resurgent demand driven by strong consumer spending and some uptake in investment as countries are approaching a post COVID-19 state, many economies still faced the problems of a persistently tight labour market and lingering supply-side challenges. All these have put the brakes on economic recovery.

Source: adapted from *United Nations*, 2022

- (a) Explain how the combination of factors mentioned above could cause macroeconomic problems in Singapore. [10]
- (b) Discuss whether the policies aimed to address the above problems will inevitably create trade-offs for the Singapore economy. [15]

6. Governments around the world will turn increasingly protectionist to try to limit the economic damage from the coronavirus pandemic causing significant changes in the direction and composition of trade between countries.

Source: adapted from *CNBC*, 2020

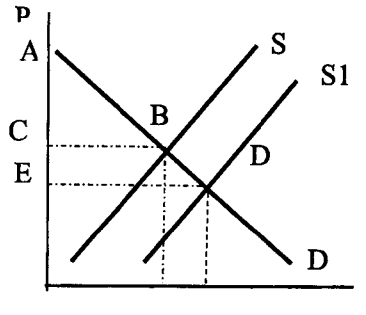
- (a) Explain why a country's pattern of trade may change over time. [10]
- (b) Assess if protectionist policies can ever be justified during a period of worldwide recession. [15]

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**Catholic Junior College
Economics Department**

Suggested Answers and Mark Scheme for JC2 Preliminary Exam 2022

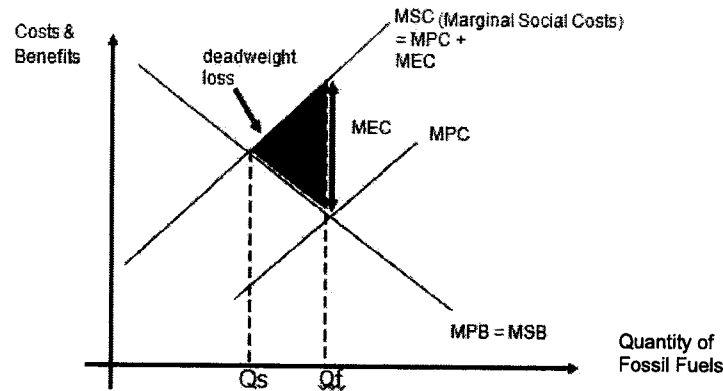
Question 1

(a)	(i)	With reference to Extract 1, identify a supply factor and explain how it could be responsible for the falling renewable energy prices.	[2]
		<p>1m: Identify supply factor + Extract evidence 1m: Explain</p> <ul style="list-style-type: none"> • A supply factor is fall in the price of factor input/Technological factors. "Wind power capacity in the U.S. has more than doubled since 2010 and reached nearly 100 GW in 2018. This was made possible by innovations such as Solar photovoltaics (PV) – the conversion of light into electricity using semiconducting materials – which enabled installation project costs to fall significantly." (Extract 1) [1] • A fall in the cost of production → increase in supply → fall in the price of renewable energy. [1] 	
(a)	(ii)	Using a diagram, explain how the above change is likely to affect consumer surplus.	[2]
		<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>The increase in supply of renewable energy shifts the supply curve to the right to S1. Consumer surplus was originally at ABC.</p> <p>As a result of increase in supply, the consumer surplus is now at AED. Consumer surplus increases [1] by BCDE.</p> </div> </div> <p style="text-align: center;">Well-referenced Diagram- [1]</p>	
(b)	(i)	Based on Figure 1, identify a similarity between the price changes of coal and sources of renewable energy.	[1]
		Both the trends in the price of coal and renewable energy such as wind are falling.	

(b)	(ii)	<p>State a likely value of the cross elasticity of demand between coal and sources of renewable energy and explain how the similarity in the trend of price changes is possible.</p>	[3]
		<ul style="list-style-type: none"> • XED between coal and renewable energy is positive and less than 1 [1] because coal and renewable energy are not close substitutes. • “The intermittent nature of wind and solar means that renewable operations are likely to systematically receive a lower overall market price” as mentioned in Extract 3 [1] • When the price of renewable energy falls, quantity demanded of renewable energy increases as consumers switch over to consume renewable energy from coal and this leads to a fall in demand for coal, this then leads to a fall in the price for coal. [1] <p>If the candidate only writes the formula of XED in the answer, he may be awarded 1 mark. If candidate writes that XED is > 1, it may be accepted as an alternative answer (subjected to discussion at standardization meeting)</p>	
(c)		<p>Consider what the author of Extract 2 means by “mispricing” of fossil fuels and explain how this might cause the market for fossil fuels to fail.</p>	[4]
		<ul style="list-style-type: none"> • Link mispricing to negative externalities: A “mispricing” means the consumers of fossil fuels do not take the external cost or negative externalities it generates into consideration. Negative externalities are cost borne by a third party, neither the consumer nor the producer, for which no compensation is made. The presence of negative externalities causes a mispricing of fossil fuels [1] • Q_f and Q_s defined: Consumers consume at Q_f, where MPC=MPB, but the socially optimal quantity is at Q_s, where MSC=MSB [1] • Divergence + Evidence: The presence of MEC causes a deviation between MPC and MSC, causing MSC to be higher than MPC at all output levels. This causes a mispricing of fossil fuels. From Extract 2, the consumption of fossil fuels may result in “costs of climate change are borne by parties other than the emitters” like health issues and destruction of their homes due to floods [1] 	

- **Overconsumption and DWL:** There is an overconsumption, causing a deadweight loss [1] and hence, market failure.
- Since there is allocative inefficiency in the market, welfare is not maximised, thus, the market for non-renewable energy is not favoured.

(Diagram is optional, since the question did not mandate the use of a diagram)



(d)

Assess the relative importance of various factors the government will consider in deciding to remove the subsidies for renewable energy.

[8]

Question Analysis

Command	Assess the various factors: Consider multiple perspectives when answering the question. This is a decision-making question and necessitates the application of the DMF framework when answering questions.
Content	Removal of subsidies for renewable energy. Linking to government objective (i.e., microeconomic objectives, macroeconomic objectives, fiscal health/sustainability, or SOL)
Context	Renewable energy Use of extract evidence is necessary for full range of marks.
Approach	This is a decision-making framework question with the following requirements:

	<p>Students need to use 2 DMF factors and explain the factors the government needs to consider when deciding to remove the subsidies.</p> <ul style="list-style-type: none"> • Factor 1: Benefits • Factor 2: Cost • Factor 3: Constraint/Unintended consequence (optional) <p>There must be an explicit link to government objective.</p> <p>They should then conclude which is the most important factor and justify accordingly.</p>	
<p><u>Introduction</u> The government will have to consider various factors in deciding to remove subsidies for renewable energy. Such factors include benefits, Costs and constraints/unintended consequences limiting the achievement of its goal. Not all factors would have weighed the same in the government's rational decision-making process.</p> <p><u>Body: Factor 1: Benefits</u></p> <p>The government will have to consider the benefits of removing subsidies. Subsidies are a financial burden to the government and may result in increased government burden and deficits. Removal of subsidies will reduce government's opportunity costs and available funds to spend on the provision of merit goods like vaccinations and education. This will increase literacy rate and life expectancy, which will then increase HDI. This increases the standard of living of the citizens and also reduces the government's debt, and results in greater fiscal health. Thus, the government may like to remove the subsidies.</p> <p><u>Body: Factor 2: Costs (one of the points below would suffice)</u></p> <p><i>"A lack of subsidies may also heighten prices for consumers and reduce uptake of renewable energy amongst them."</i> Extract 3. This may mean a decrease in consumption of renewable energy. This may lead to consumers reverting to non-renewable energy use, which may worsen environmental degradation. The environmental impacts may threaten the health conditions and reduce life expectancy, and cause HDI to worsen. This then leads to unsustainable growth and causes future generations' standard of living to fall. As low-income household may have to pay a higher price for energy, inclusiveness is also reduced.</p> <p>(Students can also show with an MF diagram how the overconsumption of coal will worsen and lead to a larger deadweight loss and worsen market failure)</p> <ul style="list-style-type: none"> - Increase in MPB aggravating overconsumption 		

- Larger deadweight loss
- Market Failure worsen

Body: Factor 3: Unintended Consequences

"No subsidies may mean that many renewable producers will become no longer financially viable" Extract 3. Renewable energy producers find the business not profitable or make losses. This results in an increase in cost of production. This then results in a decrease in SRAS, which translates to a fall in RNY and negative actual economic growth. The fall in SRAS also causes a shortage at prevailing General Price Levels, which then results in an upward pressure on price. This then generates cost-push inflation.

As subsidies are removed, producers' cost of production will be higher. Consumers may have to pay a higher price for energy thus reducing consumer surplus.

Evaluation/Conclusion

Here we evaluate the relative importance of various factors which affect the government's decision.

Stand:

The most important factor that may have led the government to remove subsidies is the benefit that could be reaped.

Substantiation

Since according to Extract 3 *"there's solar when the sun shines and wind power when there are strong winds"* there is a tendency for oversupply of renewable energy and prices to fall thus there is opportunity cost in providing subsidies and the funds can be used to develop Cleantech industry. While there are costs incurred in removing subsidies and unintended consequences, the removal of subsidies is likely to ease the burden on government budget.

However, removing subsidies will not mean cost problem is addressed. On the contrary. There is still a need to build storage for renewable energy to monitor demand and supply and thus more predictable pricing. This comes with a cost as Extract 3 cites *"it comes with its own costs and while these have dropped dramatically in recent years they still represent additional burden for renewable energy projects."*

Having considered the factors influencing the government's decision, the government must decide whether the benefits outweigh the costs in its analysis.

Marking Scheme:		
Level	Knowledge, Application/Understanding, and Analysis	Marks
L2	Analytical answer that considers both costs and benefits and provides a thorough explanation of the factors Good use of extract evidence Use of relevant economic framework to support Max 5 – if no extract evidence used	4-6
L1	Only one factor was explained- either benefits or costs explained Descriptive explanation without economic analysis Smattering of relevant points	1 -3
Evaluation		
E	Additional 2 marks for a stand on the most important factor with a well-reasoned substantiation	1-2
(e)	With reference to Extract 4 and the market structure of the Cleantech Industry, discuss the extent to which surging demand and technical developments in the Cleantech industry are likely to benefit producers and consumers.	[10]
Question Analysis		
Command word	Discuss the extent: to consider multiple perspectives. For this answer we will use the TAS analysis	
Content	Cleantech industry development and impact on the consumers and produces	
Context	Cleantech Industry Development	
Approach	Two-sided analysis (TAS Framework) Thesis: Positive effect on producers Anti-thesis: Negative effect on producers Thesis: Positive effect on consumers Anti-thesis: Negative effect on consumers (At least 3 out of 4 perspectives must be provided)	

Introduction

Development in the Cleantech industry will impact on consumers and producers. It will impact on consumers in terms of effects on SOL and consumer surplus and on producers in terms of their Total revenue and total cost which can eventually affect their profits. Extract 4: "significant barriers to entry for many" and "few large firms maintaining their foothold in the market." The Cleantech industry is likely to be an oligopoly.

Effects on producers

Thesis: There is also positive effect on some producers with Cleantech industry development.

Extract 4 para 2 mentions "Now proactive public policy is lining up with a growing appetite for Cleantech among investors and surging demand for sustainable consumer products. Furthermore, Clean technologies are rapidly moving toward mainstream adoption." This means that producers in this industry experience an increase in demand for their products. Thus, total revenue of this group of producers will increase.

At the same time, the technical developments have also resulted in "lower-cost power generation". This reduction in variable costs then results in a downward shift of MC and AC.

With reference to Figure 1, an increase in the demand for the products the AR curve shifts upward from AR1 to AR2 and from MR1 to MR2. AC and MC also shift from MC1 and AC1 to MC2 and MC2. The firms will be seen to be earning a higher supernormal profits EFGH, which is higher than the initial ABCD. Thus, the producers benefit from the surging demand in the market.

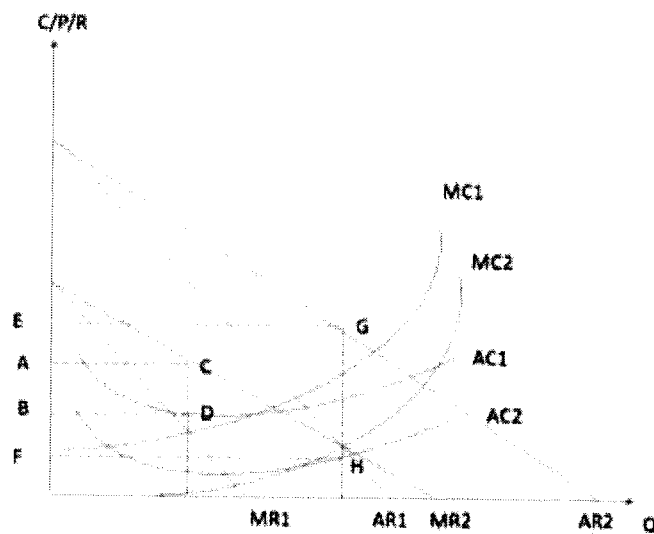


Figure 1

Anti-thesis: On the other hand there might be negative effect for some producers in Cleantech industry.

Extract 4 paragraph 3 states that *“the high costs of generating power from renewable sources are the most significant obstacle.”* And *“renewable energy technologies are still significantly new to the market, meaning they still lack the much-needed efficiency. Lack of sufficient knowledge on how to effectively harness these forms of energy makes the installation and maintenance cost for such facilities quite high.”* With such high costs of installation and maintenance of storage facilities, the newer producers in this industry may experience fall in profits or even suffer losses and may have to shut down.

Existing firms, with their past accumulated supernormal profits and their reaped internal economies of scale can engage in predatory pricing or limit pricing strategies to prevent new firms from establishing themselves in the market. Since $P < AVC$, newer firms may shut down as such investments are no longer profitable for them.

Effects on Consumers

Thesis: There is likely a positive effect on consumers with the development of Cleantech industry.

With the development of Cleantech industry, as mentioned in Extract 4 *“Cleantech industry which spans several industry verticals, including renewable energy generation, energy storage, energy efficiency, transportation, air and environment, water and agriculture.”*

The benefits to the consumers who are the households are:

- New jobs created in the industry → increase in income, increase in purchasing power, increase in the ability to purchase goods and services and therefore increase in material SOL.
- An environment of clean air and clean industry as well as sufficient energy for consumption as well as clean water improve the quality of life and thus increase non-material SOL.
- With energy storage facilities demand and supply are monitored, and prices are predicted therefore consumers may pay lower prices for energy and enjoy higher consumer surplus. [Can illustrate with diagram as well]

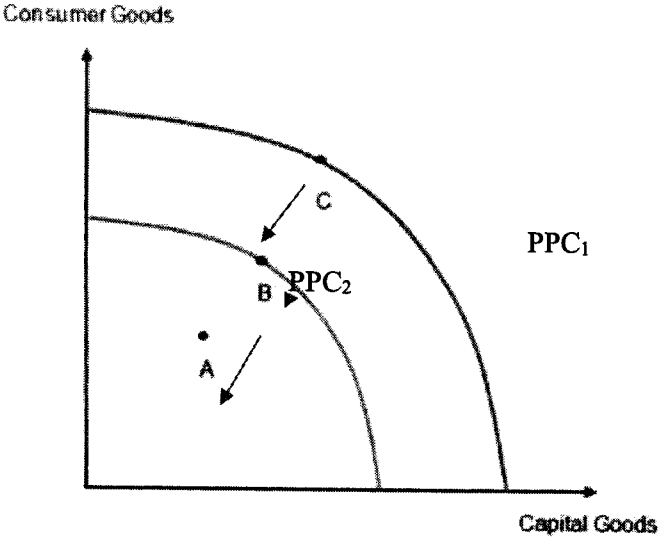
Anti-thesis: However, there could be negative effects too on consumers with Cleantech industry development.

With market dominance and the high degree of necessity of energy, the firms may not like to pass on cost savings to consumers. As such, consumers may continue to receive high prices and not enjoy the increased consumer surplus. Due to the increased in taste and preference or interests in cleantech, demand could also increase significantly and result in higher equilibrium prices for consumers. Thus, consumer surplus could fall.

	<p>Stand Overall, the developments in the Cleantech Industry may benefit both producers and consumers</p> <p>Substantiation The developments in the Cleantech Industry would increase profitability of incumbent firms. Although some firms may suffer losses, it is unlikely to outweigh the gains by the incumbent. Given the high barriers to entry in an oligopolistic market, it is unlikely that there will be many new entrants. Thus, benefits to producers outweigh the costs.</p> <p>From the consumers' perspective, it is unlikely that firms will not share cost savings since no firm is a single seller. The competitive and interdependent nature of the oligopolistic industry will provide incentive to lower prices once a single firm lowers the price. Thus, consumers are likely to get some degree of cost savings.</p> <p>Something Special One possibility for consumers to lose out is if there is collusion in the market. Thus, the government would have to look into harsh measures to prevent collusion to protect the interests of the market at large.</p> <p>Marking scheme:</p> <table border="1"> <thead> <tr> <th>Level</th> <th>Knowledge, Application/Understanding, and Analysis</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>L2</td> <td>Analytical answer that thoroughly explains the benefits and costs of both developments to producers and consumers, with good use of extract evidence. Max 6 – if extract evidence not used Max 5 – if no use of diagrammatic explanation Max 5 – if only one agent was considered or if only one out of two developments were discussed 3 out of 4 perspectives can qualify for full range of marks</td> <td>5-7</td> </tr> <tr> <td>L1</td> <td>One sided answer that considers only the benefits or costs Descriptive response with little or no economic analysis Smattering of relevant points</td> <td>1-4</td> </tr> <tr> <th colspan="3">Evaluation</th> </tr> <tr> <td>E</td> <td>For an answer that arrives at an analytically well-reasoned judgement about the impacts on consumers and producers</td> <td>1-3</td> </tr> </tbody> </table>	Level	Knowledge, Application/Understanding, and Analysis	Marks	L2	Analytical answer that thoroughly explains the benefits and costs of both developments to producers and consumers, with good use of extract evidence. Max 6 – if extract evidence not used Max 5 – if no use of diagrammatic explanation Max 5 – if only one agent was considered or if only one out of two developments were discussed 3 out of 4 perspectives can qualify for full range of marks	5-7	L1	One sided answer that considers only the benefits or costs Descriptive response with little or no economic analysis Smattering of relevant points	1-4	Evaluation			E	For an answer that arrives at an analytically well-reasoned judgement about the impacts on consumers and producers	1-3	
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[Total: 30 marks]																	

Question 2

(a)	(i)	Explain whether the information in Table 1 is sufficient to explain the changes in the current account of the balance of payment of Singapore.	[2]
		[Definition] Current account refers to the records of all international flows of money arising from trade, property income and transfers. Data is insufficient to explain the changes in CA balance. [1] Table 1 only shows the trade (imports & exports figures) balance of Singapore and did not include the income balance or current (unilateral) transfers. Hence it is insufficient to explain the changes in the current account of Singapore. [1]	
	(ii)	Using Extract 5, explain how the current account of the balance of payments of Singapore is likely to be affected by lockdowns of the economies.	[2]
		In extract 5, 'the weaknesses in supply chains for businesses' were exposed during the lockdowns of the economies, this has led to a reduction in both the exports and imports of economies around the world. [1] For the second mark, must consider the effect on the current account (improve or worsen). Can consider 2 possibilities on the effect on current account, and the final impact depends on which effect outweigh the other: - Fall in X > Fall in M → worsening of current balance OR - Fall in X < Fall in M → improvement of current balance Alternative response: Panic buying due to expected shortage of supply due to lockdown → increase in demand for imports while lockdown → fall in demand for exports → worsening of BOT → worsening of current account of BOP	
(b)	Using a Production Possibilities Curve, explain the likely impact of supply chain disruptions on Singapore's economic growth.		[4]
		<ul style="list-style-type: none"> Extract 5 indicated that "Despite decades spent fine-tuning supply chains, most companies found themselves struggling to fulfill their needs for raw materials..." Hence, supply chain disruptions will lead to an increase in cost of production as raw materials prices go up. Production falls, this will lead to a fall in RNY, the economy's position at point C moves to a point inside PPC₂, at point B [1], indicating negative actual economic growth. [1] <p>OR</p> <ul style="list-style-type: none"> Supply chain disruptions result in less raw materials available. This leads to fall in production which will lead to a fall in RNY, the economy's position at point C moves to a point inside PPC₂, at point B [1] resulting in negative actual economic growth. [1] <p>OR</p> <ul style="list-style-type: none"> Supply chain disruptions may also erode business confidence leading to a fall in investment expenditure. This leads to fall in production which will lead to a fall in RNY, the economy's position at point C moves to a point inside PPC₂, at point B [1] resulting in negative actual economic growth. [1] 	

	<p>AND</p> <ul style="list-style-type: none"> • Supply chain disruptions may also erode business confidence leading to a fall in investment expenditure that will affect the economy’s potential economic growth, leading to a fall in productive capacity if capital creation is unable to replace wear and tear. [1] • PPC shifts inwards from PPC₁ to PPC₂, indicating a fall in potential economic growth. [1] 	
<p>(c)</p>	<p>With reference to Extract 7, explain how “structural factors” have resulted in the rising Gini coefficient in China over the past two decades.</p>	<p>[4]</p>
	<ul style="list-style-type: none"> • Explanation of structural changes with extract evidence- Structural changes refer to the “rapid technological transformation and fast capital accumulation, demand for workers shifted from low to high-skilled labour” [1] • Increase in labour demand of high skilled workers → Increase wages of higher skilled workers. [1] • Fall in labour demand of low skilled workers → Fall in wages of low skilled workers [1] • Widening income gap - Rising Gini Coefficient. [1] 	
<p>(d)</p>	<p>Using Extract 6 and Figure 2, discuss whether the use of technology is most effective in making the Singapore economy more resilient in this current economic landscape.</p>	<p>[8]</p>
	<p><u>Introduction:</u> <u>On making the Singapore Economy more resilient</u></p> <ul style="list-style-type: none"> • “Covid-19 recovery” – Need to achieve AEG & reduce cyclical unemployment • “Aging workforce/Maturing economy” – Need to enhance productivity and achieve potential economic growth, reduce structural unemployment 	

- “Influence of social media” – Need to improve technology & achieve potential economic growth
- “Increase competition from other countries” – Need to improve export competitiveness
- “Climate change” – Need to achieve sustainable economic growth

To highlight any two of the above challenges faced by the Singapore economy.

Thesis: Use of technology as a supply-side policy to achieve sustained economic growth

With government expenditure encouraging the adoption of new technology coupled with increased investment spending of firms on new technology, the G and I component of Singapore’s AD will also rise.

- Increase in G & I, leads to increase in AD
- leads to increase in real GDP via the multiplier
- leads to actual economic growth for Singapore

Increase in use of technology, will improve efficiency of production

- lower unit cost of production
- increase SRAS
- leads to actual economic growth and price stability for Singapore

As shown in Extract 7, Singapore must “make critical investments in our infrastructure”, “accelerate the use of technology”, and address “long-term challenges such as climate change”

- with increase in use of technology, Singapore will be able to produce more goods and services with the same amount of resources
- all these will lead to an increase in the productive capacity for Singapore
- leads to increase in LRAS
- leading to actual and Potential Economic Growth and price stability

Overall, Singapore becomes more resilient to better cope with Covid-19.

Anti-Thesis 1: Limitations on use of technology as a supply-side policy

- Insufficient to address issues like structural unemployment due to aging workforce and there may be a time lag in terms of aiding in Covid-19 recovery. Hence, other policies are needed.
- Costly venture, if innovation is unsuccessful, loss is irrecoverable. Besides high finance costs, the government may also incur opportunity costs as funds cannot be used in other areas such as education and healthcare.
- Any other valid limitation.

Anti-Thesis 2: Government may also use alternative demand management policy like FP

- Another policy Singapore government has made use of is expansionary fiscal policy to stimulate actual economic growth, reduce cyclical unemployment and reduce rising costs of production

- A rise in government spending can stimulate and increase in AD, with more government transfer payments to help consumers to cope with Covid-19, this can increase consumption and investment spending. Job support scheme as seen in Figure 3 initiated by the government can also help to reduce costs of production and stimulate actual economic growth
- [Evaluation of policy] May be a strain on government's reserves as extract 6 indicated that the government has drawn "up to \$52 billion drawn from the reserves." And that the "Government's fiscal position will continue to be very tight" with less funds available for other uses.

Alternative: Students may also explain the use of and evaluate exchange rate centered monetary policy

OR

Anti-Thesis 2: However, other forms of supply-side policies are required to cope with issues surrounding an aging workforce such as structural unemployment & rising costs of production

- Government ought to engage in skills retraining to ensure that the Singapore workforce remains skilled and relevant in today's world. With a more productive workforce, this will increase the productive capacity of Singapore, and lead to potential economic growth. Helps to reduce structural unemployment as well. May reduce costs of production and increase SRAS, leading to actual economic growth.
- With a fall in costs of production, this can help to lower general price level in Singapore, improving our export competitiveness
- [Evaluation of policy] May be difficult to implement due to the need to change workers' mindsets. Time lag and high costs are also issues that Singapore government need to consider.

Overall evaluation on the likelihood to be successful.

Stand: Singapore must adopt a range of policies in order to face some of the challenges of the economy.

Substantiation

Government spending to boost technology development can be quite limited in the long run if the demand does not pick up in time. Outcome will be increase in LRAS and with limited increase in AD leading to excess capacity. Thus, use of technology can be temporary in terms of making Singapore successful and end of the day, we still need the world economy to recover from Covid-19.

Something special:

To manage the short-term impacts of Covid-19 and aid in recovery, expansionary fiscal policy with huge spending on government's end must continue while long term supply-side policies focusing on technology and productivity improvements are also essential to address the long-term consequences brought on by Covid-19 as well as structural rigidities faced by the economy.

Mark Scheme		
Level	Knowledge, Application/Understanding and Analysis	Marks
L2	For a developed discussion of how technology can help Singapore to be resilient in terms of achievement of macroeconomic goals and challenges ahead, well supported by relevant extract evidence.	4– 6
L1	For an undeveloped answer on how technology can help firms and Singapore to be successful but lacks balance and/or scope.	1 – 3
Evaluation		
E	For an answer that arrives at an analytically well-reasoned judgement about whether firms and Singapore is likely to be successful or not.	1 – 2
(e)	Assess whether the signing of the Regional Comprehensive Economic Partnership Agreement is likely to, on balance, benefit China's trade partners.	[10]
<p><u>Thesis - Signing of the Regional Comprehensive Economic Partnership Agreement (RCEP) will benefit China's trade partners.</u> Using Extract 8, RCEP will be guided by a common set of rules and standards, lowered trade barriers, streamlined processes, and improved market access. Lowered trade barriers allowed for imported raw materials from China at a lower cost → Lower COP for firms → increase in SRAS → Increase in Real GDP → leads to AEG</p> <p>Improved market access for goods going into China from trade partners → Increase in exports → Increase in X-M → Increase in AD → Increase in Real GDP via multiplier process → Increase in AEG</p> <p>OR Removal of tariffs in China results in a reduction in price of trading partner countries' exports. Assuming $PED > 1$ for these exports, the fall in price will result in a more than proportional increase in quantity demanded, resulting in an increase in export revenue Increase in X-M → Increase in AD → Increase in Real GDP via multiplier process → Increase in AEG</p> <p>Other possible answer(s): Increase in FDI from China → increase in AD and LRAS → actual and potential economic growth of trading partner countries. Countries like Japan who do not have bilateral agreements with China benefit from tariff savings. Money can be used by firms to increase investment to increase AD and LRAS. Firms may pay higher corporate taxes → more tax revenue for Japanese government to use to provide public, merit goods and infrastructure → increase AD and LRAS ⇒ AEWG and PEG in Japan</p> <p>Anti-thesis 1- Signing of the RCEP might not benefit China's trade partners.</p>		

<p>Using Extract 8, RCEP will see new trading bloc will also likely see a larger flow of goods from countries where production costs are high, such as Australia, Japan, New Zealand, South Korea, and Singapore to countries with lower labor costs, such as Cambodia, Laos, and Myanmar.</p> <p>→ The low-end manufacturing industries will move to countries like Cambodia and Laos, might lead to structural unemployment in Australia, Japan and New Zealand as due to skills mismatch, workers cannot find new jobs easily.</p> <p><u>Anti-thesis 2- Signing of the RCEP might not benefit China's trade partners.</u> As given in Extract 8, many RCEP countries already have existing bilateral free trade agreements.</p> <p>They might not benefit from the new RCEP if the existing bilateral free trade agreements country are their major trading partners and China is not even their minor trade partners. → No gains from RCEP</p> <p><u>Other possible answer(s):</u></p> <ul style="list-style-type: none"> ● Possible dumping by China ● Closure of infant industries ● China exploiting resources and environment <p><u>Overall EV</u></p> <p><u>Stand:</u> On balance, certain countries will benefit from signing of the RCEP and some countries might not benefit from it or benefit to a lesser extent.</p> <p><u>Substantiation</u> If many firms in Japan moves to China where production cost is much lower in terms of labour costs, it may hurt their employment level. The net gain from market access in term of selling Honda or Toyota might not be able to offset the loss in jobs at least for the short run. In the long run, if workers in the sunset industry in Japan can successfully move to the sunrise industries with appropriate training then the signing of the RCEP will be more beneficial to Japan as a trade partner of China.</p> <p><u>Something Special</u> Signing of the RCEP will brings about winners and losers as for all agreements signed for international trade. Upon signing the agreement, some countries benefited from the large access to various markets and while some faces limitations of free trade agreements and end up hurting their own economy. In the context of Japan, the government will need to support the signing of the agreement with its own internal policy to manage possible unemployment issues.</p> <p>Mark Scheme:</p> <table border="1"> <thead> <tr> <th>Level</th> <th>Knowledge, Application/Understanding, and Analysis</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>L2</td> <td>For a well-developed answer that <ul style="list-style-type: none"> ● has good balance on signing of the RCEP looking at both benefits and costs </td> <td>5-7</td> </tr> </tbody> </table>	Level	Knowledge, Application/Understanding, and Analysis	Marks	L2	For a well-developed answer that <ul style="list-style-type: none"> ● has good balance on signing of the RCEP looking at both benefits and costs 	5-7
Level	Knowledge, Application/Understanding, and Analysis	Marks				
L2	For a well-developed answer that <ul style="list-style-type: none"> ● has good balance on signing of the RCEP looking at both benefits and costs 	5-7				

	<ul style="list-style-type: none"> • has good scope – discussion of benefits and costs (A total of at least 3) • good economic analysis • has good use of the case material. 	
L1	<p>Low L1 : 1-2 For an undeveloped answer that shows major conceptual inaccuracies or that largely does not answer the question.</p> <p>High L1: 3-4 For an underdeveloped answer that</p> <ul style="list-style-type: none"> • lacks balance – only explain benefits or costs <p>AND/OR lacks scope – only 1 benefit or 1 cost explained AND/OR lacks use of the case material</p>	1 – 4
Level	Evaluation	Marks
E	Up to 3 additional marks for a valid evaluative comment on whether on balance, signing of the RCEP benefits trade partners of China.	1 - 3

**Catholic Junior College
Economics Department**

H2 Economics Preliminary Examination 2022 Paper 2
Suggested Answer and March Scheme

Essay Question 1

1. Light-emitting diode (LED) screens, an essential input for monitors, television, smartphones and used in many portable electronic devices, are in short supply due to COVID-19 lockdowns while demand for work-from-home technology increased exponentially. The shortage aggravated by the US-China "trade war" of the Trump years caused a steep increase in LED screen prices and continued to cripple the world's economy.
- (a) Explain why a shortage of LED screens might occur due to the above events and how this will lead to a drastic increase in price. [10]
- (b) Discuss the alternative strategies firms producing electronic devices could use to improve producer outcomes. [15]

Part a

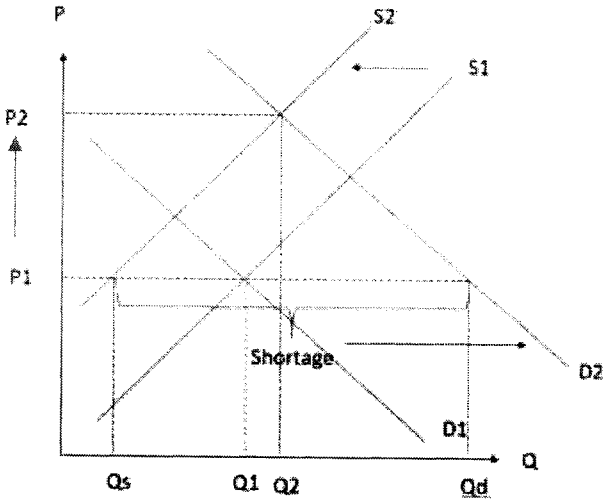
Question Interpretation

Command	Explain how – make clear the cause-effect relationship between events in the question and the effect on a drastic increase in the prices of LED.
Content	Demand and supply, PES
Context	LED screen "demand for work-from-home technology increased exponentially" – taste and preferences -> DD increase "US-China "trade war" -> SS decrease "short supply due to COVID-19 lockdowns" -> lack of spare capacity → PES inelastic
Approach	Explain how non-price determinants of DD/SS (CAUSE) affect the equilibrium price (EFFECT) Explain how SS decrease, dd increase and PES (applied to DD shift) affect the extent of increase in the equilibrium price of LED screen. (EFFECT)

Suggested Answer

Part	Description	Remarks
Intro	Introduction This essay will explain how the above events affect non-price determinants of demand and supply; thereby affecting the market equilibrium price of the LED screen market. Based on these changes of demand and supply, PES would be applied to explain the large extent of price increase.	Definitions Overview
Body- P1	Paragraph 1: Non price determinant of SS Government policy of lockdown measures due to COVID-19 led to supply chain disruption, affecting the supply of LED. Many	P

	<p>factory lines were closed and this impeded any production from taking place. Sourcing of raw materials for LED screen became more difficult and expensive, hence increasing the cost of production and decreasing the supply of LED. Also, some firms shut down due to the drastic loss in supernormal profits. Thus, the number of producers has also reduced. The fact that production decreased drastically would mean that supply has fallen drastically.</p> <p>Secondly, the fall in supply is exacerbated by the 'US-China' trade war. The Trade war has led to tariffs imposed by the US on Chinese goods. Most components of LED screens are produced and manufactured by China. Hence, trade war has caused US companies to import raw material for LED like indium and gallium at a higher price. This has led to a higher cost of production for LED in the US, thus reducing the supply of LED screen from S_1 to S_2.</p>	<p>E</p> <p>E</p> <p>L</p>
Body- P2	<p>Paragraph 2: Non price determinant of DD</p> <p>A shift in the taste and preferences has led to an increase in demand for laptops and hence a derived demand for LED screens.</p> <p>With the onset of the pandemic of COVID-19, there were lockdowns in the economy worldwide. This resulted in many companies enforcing work-from-home policy. Hence, there is a higher dd for work-from home technology, leading to a higher demand for laptops. Given that LED screen is a factor input in the production of laptops, the increase in the demand for laptop lead to a higher derived demand for LED screen. Consumers are more willing to consume laptops and hence LED screens. Thus, the quantity demanded has increased at every price level, increasing demand and shifting the demand curve from D_1 to D_2.</p>	<p>P</p> <p>E</p> <p>E</p> <p>L</p>
Body-P3	<p>Paragraph 3: Explain why there is a shortage <u>Explain the market adjustment process with a diagram</u></p>	<p>P</p> <p>E & E</p>

	 <p>With reference to the Figure above, when the demand for LED screens increases from D1 to D2 and the supply for LED screens decreases from S1 to S2, a shortage of Q_sQ_d of LED screen occurs at the original price levels. This will result in an upward pressure on the price of LED Screen. Hence, a shortage occurs.</p> <p>This will then result in a fall in quantity demanded and a rise in quantity supplied, according to the law of demand and supply respectively and the market will re-equilibrate at P2, Q2. The increase in demand and decrease in supply of the LED screens resulted in a mutually reinforcing effects on the equilibrium price, contributing to a drastic increase in equilibrium prices.</p>	<p>L</p>
<p>Body-P4</p>	<p>Paragraph 4: PESi for LED screen will result in a drastic increase in equilibrium price The extent of price increase would depend on the price elasticity of supply (PES). Covid 19 lockdown affected the production of LED screen. This suggests the level of inventory is low or has been used up – this would make supply price inelastic as producers may not be able to readily increase quantity supplied in response to an increase in prices.</p> <p>As can be seen in Figure 1, when supply is price inelastic, price would increase by a larger extent from P_0 to $P_{inelastic}$ as compared to P_0 to $P_{elastic}$ when supply is price elastic.</p>	<p>P E E L</p>

Conclusion	Hence an increase in the demand of LED screens and PES inelastic has caused a drastic increase in its prices.	Brief Summary of Points

Levels	Descriptors	Marks
L3	<p>Well-developed explanations of both non-price determinants of SS and DD.</p> <p>The answer shows an awareness of how the extent of DD and SS shifts affect the direction of price change; how PES affects the extent of price change.</p>	8-10
L2	<p>Explanations of both non-price determinants of SS and DD are present but may not be well-contextualised to the events in the preamble.</p> <p>The answer shows an awareness of some of the following:</p> <ul style="list-style-type: none"> • The need to account for the shifts of the DD vs SS curves to account for the mutually reinforcing effects on equilibrium prices. • Price adjustment process • The need to apply PES_i + dd to account for the drastic increase in prices 	5-7
L1	<p>Descriptive narration of DD and SS factors.</p> <p>Invalid links to market equilibrium price.</p>	1-4

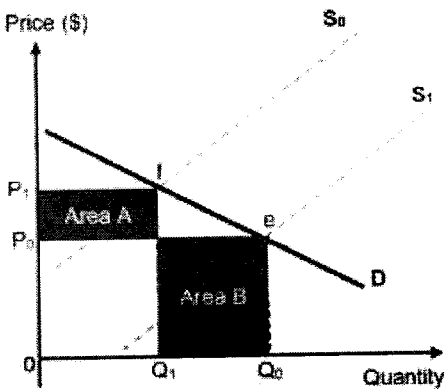
Part b

Question Interpretation

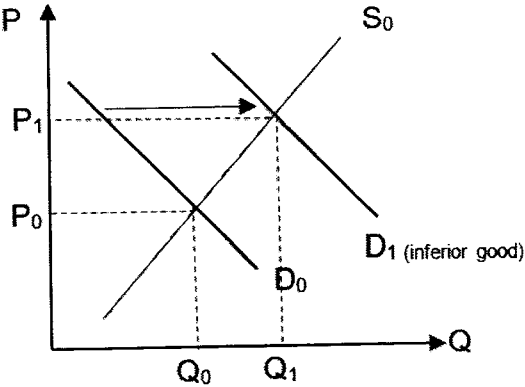
Command	Discuss- Two-sided answer and well-substantiated conclusion
Content	Cause: Various strategies- Price and Non-Price (Product and Process Innovation) Link: Profits (Link to the use of PED, XED and YED as these strategies can affect AR and AC and thereby impact profits)
Context	Electronic device firms
Approach	Requirement 1: Explain how price competitive strategies can impact profits Requirement 2: Explain how non-price competitive strategies can impact profits.

Suggested Answer

Part	Description	Remarks
Intro	<p>Producer outcomes will be improved when profits of firms producing electronic devices are maximised. The elasticity concepts will be useful in achieving this aim through the appropriate pricing and marketing strategies. Assuming total costs remain constant, the aim of the electronic device firms like Samsung, Apple and Fujitsu will then be to maximize total revenue (TR) where TR refers to the firm's total earnings from a specified level of sales within a specified period and is equal to the product of price and quantity.</p> <p>Price elasticity of demand (PED) measures the degree of responsiveness of quantity demanded (Qd) of a good to a change in its price, ceteris paribus.</p>	Definition Criteria Overview
Body- T	<p><u>Thesis: Pricing strategies to increase profitability using PED and XED concepts</u></p> <p>Electronic devices firms may consider engaging in price competition to increase their profits. One possible strategy is to offer price discounts to their consumers. As the different models of handphone are close substitutes for each other, their XED value is positive and >1. As a result, a lower price of handphones by Huawei for example will lead to a more than proportionate fall in its competitor's demand and thereafter a significant rise in quantity demanded for their products. Since there is an availability of close substitutes, the PED of an electronic device firm's goods will be more than 1. Hence, an appropriate pricing strategy for the</p>	P E E

	<p>electronic device firm is to sell its product at a discounted price (i.e. reduce price) in order to increase TR.</p>  <p>Figure 1: Decrease in price with $PED < 1$, increase in TR</p> <p>The fall in price will lead to a more than proportionate rise in the quantity demanded, ceteris paribus. Thus, the fall in TR of Area A due to the fall in price will be less than the rise in TR of Area B due to the rise in quantity demanded. Hence, TR will increase.</p>	<p>L</p>
<p>Body- AT1</p>	<p><u>Anti-thesis: Limitation of pricing strategy resulting in profit not being maximised.</u></p> <p>LIMITATION: a firm cannot lower price indefinitely; especially in light of the rising cost due to supply chain disruption from the Covid-19 pandemic. It also needs to take into consideration its costs. If it lowers price below costs, it will make a loss. Furthermore, it must consider the potential response of its rivals. If its rivals follow suit and lower prices, the firm's attempt to increase TR may fail.</p> <p>In the long run, firm should launch an advertising campaign to increase brand loyalty (e.g. advertising and marketing campaign emphasizing uniqueness or quality of the electronic device). Product differentiation would lower the PED value of the firm's products, so the firm can raise prices and raise TR.</p>	<p>P E E L</p>
<p>Body-T2</p>	<p><u>Thesis: Explaining how engaging in non-price competition - product innovation can increase profitability.</u></p> <p>Product differentiation in terms of innovation is a form of non-price competition. It refers to creating something new and unique, and it may happen in terms of their products.</p>	<p>P</p>

	<p>Figure 2: increase in demand due to product innovation</p> <p>If electronic firms constantly innovate their product, for example, by engaging in research and development to create foldable handphone, laptops with better aesthetic designs and better specifications, they may be able to raise their profits. When such features are added, it attracts a greater pool of consumers. This will increase the demand for the electronic devices from D_0 to D_1 and increasing the total revenue of electronic firms from P_0Q_0 to P_1Q_1.</p> <p>Additionally, successful product differentiation would make the demand for the electronic device less price elastic, so the electronic firms may increase TR by increasing price, as quantity demanded would fall less than proportionately. Thus, product innovation can be a strategy to increase profits.</p>	<p>E</p> <p>E</p> <p>L</p>
<p>Body-AT2</p>	<p><u>Anti-thesis 2: Limitation of non-pricing strategy resulting in profit not being maximised.</u></p> <p>There may be limited success to such a strategy if the improved good is not well-received by the consumers. As such, the increase in demand may be limited. As R&D increases costs as well, the gain in revenue may be lesser than the increase in cost. As a result, this may harm profitability. This is especially so since most electronic devices are similar in specification and aesthetic, and it may take years for research and development to take effect with a new product. Thus, such a strategy may not guarantee an increase in profits.</p>	
<p>Body-T3</p>	<p><u>Thesis: Explaining how engaging in non-price competition - Product differentiation by producing more inferior good (using YED concepts)</u></p>	

	<p>The firm should produce a basic, no-frills, value-for-money range of electronic devices to appeal to more budget-conscious consumers. The world economy contracted by - 3.3% in 2020 due to the Covid-19 pandemic and hence there is a falling income worldwide. Given the current global recession, the average income of consumers in Singapore and worldwide is falling. Assuming the firm's products are considered normal goods, the firm should expect a fall in the demand and hence a fall in P_e and Q_e, resulting in a fall in total revenue.</p>  <p>Figure 3: Increase in demand for inferior good</p> <p>Thus, the creation of an 'inferior' model of electronic devices will help firms earn a higher total revenue. Such a "basic" range may be considered as an inferior good ($YED < 0$) so the fall in consumers' income would only lead to a rise in demand from D_0 to D_1 and hence a rise in total revenue from P_0Q_0 to P_1Q_1. E.g. some laptop only has the basic features of allowing for Zoom application and Microsoft word and is only selling for below \$300. Packaging their goods as an 'inferior' model will allow electronic firms to have a higher total revenue.</p>	<p>Third point (alternative – cursory point will be good enough)</p>
<p>Body-AT3</p>	<p>Anti-thesis 3: Limitation of non-pricing strategy resulting in profit not being maximised.</p> <p>However, all secondary students will have their own electronic devices as part of a national digital literacy programme in Singapore. Hence electronic devices in Singapore may still be considered as a necessity. $0 < YED < 1$: Furthermore, demand for work-from-home technology have increased exponentially due to the pandemic. Firms may not need to do product differentiation to create an 'inferior' model, in light of the strong demand for electronic devices.</p>	

Conclusion	<p><u>Evaluation</u></p> <p>Stand</p> <p>Electronic device firms should use a multi-pronged approach comprising of both pricing strategy in the short run and product innovation in the long run to maximise their profits.</p> <p>Substantiation-</p> <p>In the short run, some product innovation may not be successful. However, with enough trial and error, and understanding of consumers' tastes, the firm may be able to create a niche for itself in the long run for certain products. Thus, in the long run, the revenue from innovation will far exceed the initial costs of innovation. For e.g. Samsung and apple has establish itself as a strong brand in terms of the various model of its handphone. Moreover, establishing itself as a brand that constantly innovates its products and services will also create a long-term brand loyalty among customers. This have enabled Samsung and Apple to earn high supernormal profits. Process innovation may also be a good long term strategy to keep costs low and ensure that the firm remains competitive vis-à-vis its competitors.</p> <p>Something Special</p> <p>Firms should perhaps carefully calibrate their research and development processes to better suit consumers' interest before investing heavily into it. One way is to more carefully design their market survey processes to that they will proceed with more robust information and produce innovative products to help boost their profitability.</p> <p>The best strategy would probably be product differentiation, to build up a strong brand, so demand for the firm's product is price-inelastic and less cross-elastic with respect to the price of its electronic device rivals.</p> <p><u>Other possible consideration in Something Special:</u></p> <p>Firm may have alternative aims: if firm does not seek to maximize revenue, strategies proposed using elasticity of demand concepts may no longer be relevant in helping the firm achieve its aim.</p> <ul style="list-style-type: none"> • “Ceteris paribus” assumption may not hold: changes to the situation may change the PED, XED, or YED values of the firm. E.g. 2020 worldwide growth is negative but 2021 registered positive growth. Not feasible to create an 'inferior' product for just 1 year. 	<p>Stand</p> <p>Substantiation- Time and situation of STRAWS</p> <p>Something Special- Recommendation of STRWS</p>
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Levels	Descriptors	Marks
L3	Answer considers the different perspectives with regard to the use of pricing and non-pricing strategies and the impact on TR of producers of electronic devices firms. These perspectives are well elaborated using PED, XED and YED concepts, as well as supported with examples consistently.	8-10
L2	Answer considers the different perspectives with regard to the use of pricing and non-pricing strategies and the impact on TR of producers of electronic devices firms. These perspectives are somewhat elaborated using PED, XED and YED concepts. Examples are not used throughout.	5-7
L1	Descriptive narration of strategies. The Impact on TR of producers of electronic device firms is superficial. These impacts are explained using some economic analysis but they may not be accurately developed throughout.	1-4
E3	An answer that provides a stand on the overall impact on TR with a well-reasoned justification using a clear criteria.	4-5
E2	An answer that provides a stand on the overall impact on TR with some attempts to justify their stand using some criteria.	2-3
E1	An answer that attempts to provide an unsupported stand on the overall impact on TR.	1

Essay Question 2

2. Korean Air Lines, a market leader in the country's industry, says it will take over smaller rival Asiana Airlines in a government-backed deal aimed at helping the country's two largest carriers survive the coronavirus pandemic. This could however involve layoffs of existing workers from both carriers in an effort to make the airline more cost-effective by streamlining processes.

Source: Various

- (a) Explain one reason why consumers might be better off and one reason why consumers might be worse off from Korean Air Lines' potential takeover of Asiana Airlines. [10]
- (b) Discuss if the existing competitors of the newly merged firm will benefit if the above deal were to succeed. [15]

Part a

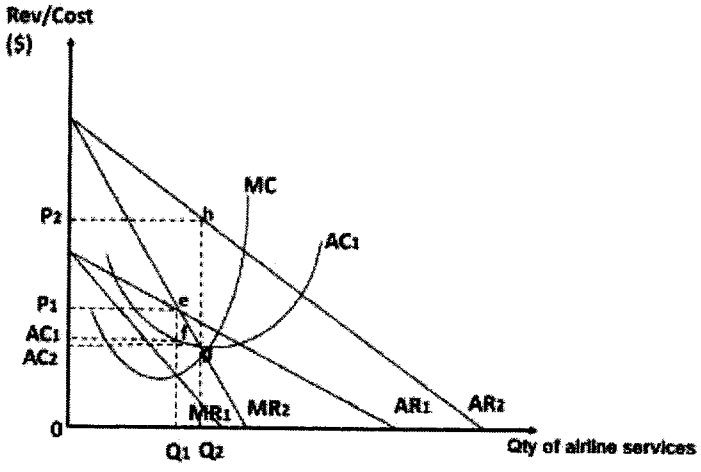
Question Interpretation

Command	Explain: 1) One reason why consumers might be better off 2) One reason why consumers might be worse off
Content	Impact of mergers/acquisitions on consumers
Context	Airline industry
Approach	Intro: - Definition - Overview Body: - P1: Explain one benefit of merger of Korean Air Lines and Asiana Airlines on consumers - P2: Explain one cost of merger of Korean Air Lines and Asiana Airlines on consumers Conclusion: - Summary of Points

Suggested Answer

Part	Description	Remarks
Intro	Consumer welfare is affected by aspects such as consumer surplus, prices, quality and variety. In this response, we will focus on how prices could potentially be higher or lower, thus affecting consumer welfare.	Overview

<p>Body- P1</p>	<p>One reason why consumers might be better off is because if the takeover was successful and the firm experiences internal EOS, consumers might enjoy lower prices</p> <p>Korean Air Lines' potential takeover of Asiana Airlines will benefit consumers in terms of passing off cost savings to consumers in terms of lower prices, hence increasing their consumer surplus. It is able to reap internal economies of scale (IEOS), which refers to unit cost reductions that accrue to a firm as a result of expanding the firm's scale of production. For example, Korean Air Lines can now capitalise on marketing economies in advertisement, resulting in costs savings for the company</p> <p>As seen in Figure 1, Korean Air Lines initially produces airline services at the output level Q_1 at price level P_1 where marginal cost (MC_1) intersects marginal revenue (MR) to maximise profits. By reaping higher IEOS, it would lead to a fall in marginal cost (MC) from MC_1 to MC_2. Hence, it will now maximise profits where MR intersects MC_2, resulting in a higher profit maximising output Q_2. It would then pass off the cost savings to consumers in terms of lower prices, P_2.</p>	<p>Point</p> <p>Elaboration</p> <p>Example</p> <p>Link to benefits</p>
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<p>Body- P2</p>	<p>One reason why consumers might be worse off is because if the takeover was successful, prices might rise instead because of fewer close substitutes for the enlarged firm</p> <p>With a successful takeover, there is a reduction in competition and therefore, the demand for Korean Airlines will rise. Furthermore, as there are not close substitutes in existence now for Korean Airlines, its demand will become more price inelastic as its market power rises. The AR curve for the firm shifts to the right from AR1 to AR2 and becomes steeper.</p>  <p>As a result, the profit-maximizing price has increased from P1 to P2 and the profit maximizing output rises from Q1 to Q2. Furthermore, profits of the firm have risen from area P1efAC1 to area P2hgAC2. This shows that the newly enlarged firm has gained a rise in profits at the expense of consumers who are paying a higher price now. This is not beneficial to consumers.</p>	<p>Point</p> <p>Elaboration</p> <p>Link to costs</p>
<p>Conclusion</p>	<p>In conclusion, consumers can potentially be better off or worse off after a successful takeover of Asiana Airlines by Korean Airlines. The overall net effect would partly depend on the extent to which the enlarged firm will be able to gain economies of scale from this effort.</p>	<p>Brief Summary of Points</p>

Levels	Descriptors	Marks
L3	<ul style="list-style-type: none"> Well-developed explanation of how consumers are better off AND worse off from Korean Airlines' takeover in terms of consumer surplus, variety and/or quality Clear and coherent analysis, grounded by economic concepts, frameworks and principles Good use of relevant examples 	8-10
L2	<ul style="list-style-type: none"> Under-developed explanation of how consumers are better off AND worse off from Korean Airlines' takeover in terms of consumer surplus, variety and quality. Well-developed explanation of how consumers are better off OR worse off from Korean Airline's takeover in terms of consumer surplus, variety and quality. Limited use of examples. 	5-7
L1	<ul style="list-style-type: none"> Smattering of points Many conceptual errors Fails to address question requirement 	1-4

Part b

Question Interpretation

Command	Discuss – balanced answer + evaluation
Content	Behaviour of a firm with high market power: Strategies – Predatory pricing; Product differentiation and innovation Cost / revenue concepts Impact of firm's strategies on other firms
Context	Airline industry
Approach	Explain the costs and benefits to existing competitors when Korean Air Lines and Asiana Airlines merge. Shifting of AC, MC, AR, MR curves for technical analysis.

Suggested Answer

Part	Description	Remarks
Intro	The existing competitors will experience both costs and benefits with the successful merger of the two firms, Korean Air Lines and Asiana Airlines. The costs may be in the form of higher firms' costs or lower revenues. The benefits could be in the form of higher firms' revenues or lower costs.	Definition Criteria Overview
Body- T	<u>Existing Competitors may enjoy lower costs as wages for labour in the industry might fall – Benefit</u>	Point

	<p>With the merger, there might be cost-cutting in the merged firm which leads to large scale retrenchments of trained staff like pilots and airline engineers. This might result in an overall fall in the industry demand for airline staff in the industry as Korean Air Lines is considered a "market leader", thus, resulting in a surplus of airline staff in the market, causing the wages of these staff to fall. As this means a fall in the variable costs for existing competitors, their AC and MC will fall. The AC and MC curves shift downwards from AC0 to AC1 and MC0 to MC1 respectively. This will cause the profit-maximizing output for an existing competitor of Korean Airlines to rise from Q0 to Q1 and the profit-maximizing price to rise from P0 to P1. Its profits will increase from area P0baC0 to area P1efC1.</p>	<p>Exemplification using preamble</p> <p>Elaboration</p> <p>Link to profits</p>
<p>Body- AT1</p>	<p><u>Existing Competitors may experience lower revenues as a result of Korean Air Lines' pricing strategy – Cost</u></p> <p>To preserve its market position and deter new competitors from competing away its supernormal profits, Korean Air Lines is able to adopt predatory pricing due to the ability to tap on its previous supernormal profits earned in the long run. Predatory pricing is the charging of an artificially low price for a product to chase away existing competitors. This price may be set below the new competitor's AC, thus resulting in low revenue earned by new competitors. Thus, due to the inability to make at least normal profits as a result of Korean Air Line's pricing strategy, competitors will find it unprofitable to charge at a price below their AC. This will reduce the total revenue and therefore profits for the competitors of Korean Air Lines.</p>	<p>Point</p> <p>Elaboration</p> <p>Link to Profits</p>

<p>Body-AT2</p>	<p><u>Existing Competitors may experience higher costs as a result of Korean Air Lines's non-pricing strategies - Cost</u></p> <p>In order to continue dominating the airline market in Singapore, Korean Air lines may also adopt non-price strategies such as R&D and advertising, which makes it difficult for existing competitors to compete. The ability to retain supernormal profits in the long run allows Korean Airlines to invest in innovation and research and development (R&D). For example, Korean Air Lines may conduct R&D to improve on onboard entertainment systems and ways to combat the effects of bad weather. To compete effectively with the newly merged firm, existing competitors would have to invest in innovation and R&D. Since R&D and advertising are considered fixed costs, only the AC will rise. The MC is unaffected because only variable costs affect the MC, not fixed costs. The AC of an existing competitor will rise and the AC curve will shift upwards from AC₁ to AC₂. The profit-maximising price and output for the firm remain the same at P₁ and Q₁. However, the profits of the firm will fall from P₁e_fAC₁ to P₁e_fAC₂.</p> <p>In the short run, as long as such an existing competitor has a TR that can still cover its TVC, this firm would still continue in production. However, in the long run, if the TR cannot cover the TC, than the firm would shut down.</p>	<p>Point</p> <p>Elaboration</p> <p>Example</p> <p>Link to profits</p> <p>Shut-down condition</p>
<p>Conclusion</p>	<p><u>Stand</u> Overall, if the above takeover deal were to succeed, the existing competitors of Korean Air Lines would lose out.</p>	<p>Stand</p>

	<p><u>Substantiation</u></p> <p>It is true that large scale retrenchments may allow wages for relevant staff like pilots and air stewardesses to fall. However, during the coronavirus pandemic, wage costs for existing firms were already generally low because many of these staff were not being activated to fly. Therefore, this particular benefit to existing competitors might not be so significant.</p> <p>It is likely that after a successful takeover for Korean Air Lines, the enlarged firm would have a lot more financial resources to engage in R&D in order to improve their airline services. This is because Korean Air Lines and Asiana Airlines are the two largest in the country and their combined financial resources is likely to be very huge. If so, this would be a very significant threat to existing competitors who would have to invest heavily in R&D too if they want to keep up.</p> <p><u>Something Special</u></p> <p>[Recommendation] These existing competitors should consider both process innovation and product innovation in their R&D methods in order to keep up with Korean Air Lines. Process innovation will help to keep their costs low and product innovation can help them increase their revenues in order to maintain their profits.</p>	
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Levels	Descriptors	Marks
L3	<ul style="list-style-type: none"> Developed explanation of how existing competitors lose out and gain because of the takeover. Addressed both costs and revenues aspects 	8-10
L2	<ul style="list-style-type: none"> Under-developed explanation of how existing competitors lose out and gain because of the takeover <p>OR</p> <ul style="list-style-type: none"> One-sided but developed explanation of how existing competitors lose our OR gain because of the take over Might not have addressed both costs and revenues aspects 	5-7
L1	<ul style="list-style-type: none"> For an answer that has a smattering of points or with major conceptual errors. Poor/lacks application of economic concepts. 	1-4
E3	Insightful judgment substantiated with analyses	4-5
E2	Judgment substantiated with analyses that were explained mostly in the body	2-3
E1	Unsubstantiated judgment	1

Essay Question 3

3. Poor understanding of the benefits of healthcare will result in the underuse of the service.
- (a) Explain how rational consumers make decisions about the consumption of healthcare services and one reason why consumers' decisions may result in an inefficient allocation of resources. **[10]**
- (b) Discuss whether free provision in the healthcare market can ever be justified as a way to achieve a more desirable outcome in the market. **[15]**

Part a**Question Interpretation**

Command	Explain how
Content	Rational decision making- marginalist principle in order to maximise private welfare Why inefficient allocation of resources- due to the presence of positive externalities or imperfect information (7 step analysis with the use of diagrams to illustrate how the presence of such issues leads to market failure)
Context	Healthcare market
Approach	<p>Intro</p> <ul style="list-style-type: none"> - Definition of rational decision making and its objectives; definition of market failure - Overview of essay <p>Body</p> <ul style="list-style-type: none"> - P1: Explaining how rational decisions are made by consumers via the marginalist principle - P2: Explaining one source of market failure (either positive externalities or imperfect information) <p>Conclusion</p> <ul style="list-style-type: none"> - A summary of points

Suggested Answer

Part	Description	Remarks
Intro	<p>A rational decision in economics is one where the net benefit is maximised due to that decision. For a consumer, a rational decision is one that allows him to maximise his net utility from the consumption of a good or service.</p> <p>This essay aims to explain how consumers make rational decisions and how it may not necessarily lead to an efficient allocation of resources.</p>	<p>Definitions</p> <p>Overview</p>
Body- P1	<p>Marginal Benefit (MB) is the value of satisfaction consumers gain by consuming an additional unit of the good. Example of MB in healthcare is the cures and additional health benefits acquired from consuming healthcare. The law of diminishing marginal utility states that as more units of the good is consumed, the additional satisfaction from consuming an additional unit falls. This results in the Marginal Benefit being downward sloping.</p> <p>Marginal Cost (MC) is defined as the additional cost incurred from an additional unit of output consumed. This can come in the form of healthcare costs and consultation fees. The law of increasing opportunity costs state that as more units of the good is consumed, the opportunity costs increased. This leads to an upward sloping Marginal Cost curve.</p> <p>To maximise private welfare, the consumers will decide to consume healthcare only up to a quantity where $MB=MC$. As a rational agent, the consumer would want to maximise his own net private benefit. Thus, he will continue to consume healthcare as long as the MC is less than MB, as he will continue to enjoy net benefits as he continues to consume more units. This can be seen in Figure 1. At quantity Q_1, $MB>MC$, and consumers may enjoy a net benefit of AB if he continues consuming that unit of healthcare. If he continues increasing consumption, he will continue to enjoy net benefit, thus he will not stop consuming additional units when $MB>MC$.</p>	<p>P</p> <p>E&E</p>

	<p>therefore $MPB_{actual}=MSB$. The socially efficient equilibrium where society's welfare is maximised is at Q_s, where $MSC = MSB = MPB_{actual}$. Allocative efficiency is achieved.</p> <p>Being myopic, consumers tend to not see the long-term benefit of having healthcare. As seen in the preamble, ". Poor understanding of the benefits of healthcare will result in the underuse of the service". Consumers may only think that healthcare only serves the function of cure, but in fact the true MPB is that it may also serve the function of early detection and prevention, which will preserve their future non-material standard of living. Therefore, there is under-consumption of healthcare by the amount Q_rQ_s due to imperfect information. As a result of this under-consumption by the amount of Q_rQ_s, there is a deadweight loss of the shaded area. Therefore, the government's microeconomic goal of allocative efficiency is not achieved and there is market failure.</p> <p><i>Alternative Answer: If students write about the presence of positive externalities and explain the 7-step process of how it leads to market failure, it is accepted as a valid response for R2 as well.</i></p> <p><i>If they write an incomplete explanation for imperfect information and a cursory explanation for positive externalities, credit will be award accordingly for a third point as well.</i></p>	L
Conclusion	Thus, rational consumers make decisions via the marginalist principle to maximise their private welfare. However, societal welfare may not be maximized due to the presence of imperfect information as a source of market failure.	Brief Summary of Points

Levels	Descriptors	Marks
L3	Response analytically explains how consumers make rational decisions through the marginalist principle to maximize welfare and how the presence of imperfect information or positive externalities result in market failure. Answers also contain good use of examples.	8-10
L2	Response explains how consumers make rational decisions through the marginalist principle to maximize welfare and/or how the presence of imperfect information or positive externalities result in market failure in a cursory manner. Answers also contain some use of examples.	5-7
L1	Response attempts to address the question but contain serious conceptual errors or shows the absence of the use of economic analysis. Answer may also not contain any examples.	1-4

Part b

Question Interpretation

Command	Discuss whether- Use of TAS Framework- two alternative viewpoints and arrival at a well substantiated conclusion
Content	<p>Direct Provision</p> <ul style="list-style-type: none"> - Market Failure Policies - Explaining how direct provision can resolve market failure and its limitations to discuss whether it is justified <p>Other policies to correct MF due to healthcare (i.e., public education, subsidy, joint provision etc.)</p> <ul style="list-style-type: none"> - Explain how the policy addresses the issue of market failure and a limitations <p>Candidates are advised to write 3 policies (Direct Provision + 1 analytically written policy + 1 cursorily written policy)</p>
Context	Healthcare market
Approach	<p>Intro</p> <ul style="list-style-type: none"> - Defining the source of market failure- merit goods - Criteria - Overview of Answer <p>Body</p> <ul style="list-style-type: none"> - T: The use of free provision is justified - AT: The use of free provision is unjustified due to its limitations - AT2: The use of free provision is unjustified as alternative policies may be superior <p>Conclusion</p> <ul style="list-style-type: none"> - Stand - Substantiation - Something Special

Suggested Answer

Part	Description	Remarks
Intro	<p>Healthcare is a merit good that causes market failure due to the presence of positive externalities and imperfect information.</p> <p>To correct market failure, the government puts in place policies such as free provision, subsidies and public education in attempt to restore efficiency in the market. For a policy to be justified, it needs to be able to address market</p>	<p>Definition</p> <p>Criteria</p>

	<p>failure effectively and not pose significant negative unintended consequences.</p> <p>This essay aims to discuss some policy choices and whether free provision can be justified as a policy option of the government.</p>	<p>Overview</p>
<p>Body- T</p>	<div style="text-align: center;"> <p>Figure 3: Direct Provision</p> </div> <p>The government could directly provide the goods/services at the socially efficient quantity (Q_s) and at zero price, or they could pay private healthcare firms to provide at Q_s. Typically, this is a policy used for public goods but there are some other cases where direct provision can be used like the provision of free covid-19 vaccinations to Singaporeans. With reference to Figure 3, consumers of healthcare initially consume at Q_f, where $MPB=MPC$ to maximise their private welfare. With the use of direct provision, $MPC=0$, so consumers consume where $MPB=MPC=0$ to maximise their net benefit, which is at Q_s. Since the socially optimal quantity is achieved, underconsumption is resolved and deadweight loss is eliminated. This facilitates an efficient allocation of resources.</p> <p>Furthermore, since healthcare is provided free, the lower income strata can now get access to healthcare which may be very expensive and beyond their affordability levels. Thus, they enjoy higher life expectancy, which creates higher HDI, and improve their non-material standard of living. This will also help create more equitable outcomes, which is part of the government's microeconomic objectives. Thus, direct provision can help create a more desirable outcome in the market for healthcare in terms of both efficiency and equity.</p>	<p>P</p> <p>E & E- Efficiency</p> <p>E & E- Equity</p> <p>L</p>
<p>Body- AT1</p>	<p>The above, however, assumes that MEB is large. Direct provision can worsen the level of efficiency if MEB is small.</p>	<p>P</p>

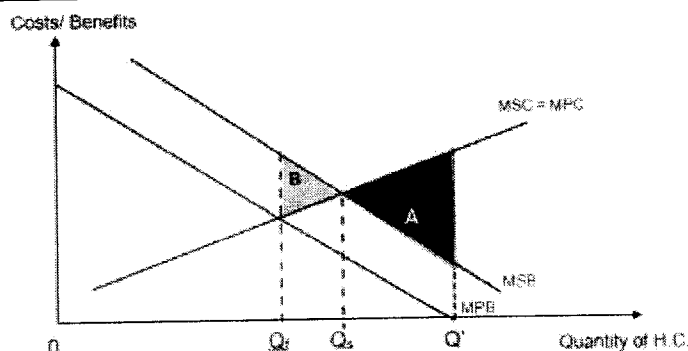


Figure 4: Direct provision when MEB is small

With reference to Figure 4, the socially optimal level of output is where $MSB = MSC$ i.e. output Q_s . If the good is provided for free (at zero price), consumers of healthcare will consume at Q' where $MPB = MPC = 0$, to maximise their **net private benefit**. Since $MSC > MSB$ between Q_s and Q' , there is a net loss to society and the resulting deadweight loss is shown by Area A. On the other hand if the good was supplied by the free market without government intervention, consumption will be where $MPB = MPC$ at output Q_r . The resulting deadweight loss will then be Area B. In the case illustrated above, since Area A is bigger than Area B. Direct provision of this good for free at Q' would lead to **an even greater inefficiency** compared to a purely free market outcome.

Mini-Synthesis: The MEB of healthcare is unlikely to be small, especially for a country like Singapore where human resources are key. Healthcare can bring about a healthier population which can bring about increased productivity and high economic growth rates. Thus, it is likely that direct provision may be desirable.

Direct provision is also most limited in terms of feasibility as it requires extremely high levels of government financing since healthcare, a very expensive service, is provided for free to the masses. This may put a strain on government budget and pose a threat of possible fiscal debt for countries with little reserves. Furthermore, it may incur a high opportunity cost. For example, the government will not be able to subsidise for other merit goods like education and enjoy its potential benefits. Due to the high government expenditure, there may even be a need to raise taxes in future to fund the provision of healthcare, this may result in the unintended consequence of harming future generation's

E & E

L

	<p>Subsidies can also help create more equitable outcomes. The poor will be able to enjoy subsidized rates and thus enjoy more affordable healthcare. This allows them to get access to healthcare and improve the state of equity with regard to the healthcare market.</p> <p>Evaluation of Policy (Limitations)</p> <p>Subsidies will only effectively correct market failure if the government can precisely value MEB at Qs. An overestimation will result in an over subsidy and hence an overconsumption, and an underestimation will result in an under subsidy and thus, the underconsumption will persist and market failure will not be corrected.</p> <p>Subsidies also result in some form of government burden and opportunity cost, though it is less extensive as compared to direct provision. Thus, in this regard, it may be less costly and thus less burdensome as compared to direct provision.</p> <p>An additional limitation is that subsidies does not correct the root cause of imperfect information. Thus, when subsidies are removed, the market failure will continue to persist as the issue is not solved at its core.</p>	<p>E & E</p> <p>L</p>
Body- AT2	<p>The government can also consider the application of public education to correct market failure.</p> <p>Public education involves the use of advertisements and campaigns to educate the public. Unlike the use of public education in encouraging consumers to voluntarily internalise the positive externality of healthcare (i.e. providing information about external benefits), the use of public education in the case of imperfect information is to provide the public with the information regarding private benefits that they lack. Examples are like posters to promote regular health check-ups, cancer screening and advertisements done by the Health Promotion Board. This can help address the poor understanding of the benefits of healthcare, which will result in the underuse of the service.</p> <p>This will bridge the information gap between MPB perceived and MPB actual. Therefore, consumers will increase</p>	<p>P</p> <p>E & E</p>

	<p>consumption up to Q_s where $MPC=MPB$ actual and allocative efficiency is achieved.</p> <p><i>Evaluation of Policy:</i> This is the only policy that can address the issue of imperfect information. However, its effectiveness depends on the receptivity of the people. If people do not want to change their habits or are not receptive to the campaigns, consumption levels will not change.</p> <p>This policy also suffers from a very long time lag and cannot solve the problem in the short run. Thus, it is at best a long run policy.</p>	L
Conclusion	<p>Whether free provision can be justified greatly depends on the state of government resources as well as the type of good within the healthcare market the government wishes to provide for.</p> <p>One should note that the healthcare market is vastly diverse, and the magnitude of the positive externalities differ greatly across the different type of services. In the case of vaccinations where MEB is large, since it protects the population from the spread of diseases, free provision is justified since intervention will improve allocative efficiency. However, in the case of typical flu and cough medication, as well as visits to the General Practitioner where MEB is smaller, free provision may not be justified since MEB is likely to be smaller given the severity of the issue at hand. Also, the magnitude of MEB also has implications on how immediate the issue needs to be solved. If there is a large MEB and large underconsumption, it may warrant a quick and drastic intervention, which may justify free provision, whereas, where MEB is small, there could be time to explore other more economical intervention methods since the issue is not severe.</p> <p>Also, if government finances are weak, direct provision may be less justified as compared to a subsidy, which can address market failure in a way that is less costly to the government. However, for a country with strong reserves like Singapore, direct provision can be better justified since the spending will not lead to debt, which has further economic ramifications in the long run.</p> <p>Direct provision cannot be sustained in the long run due to the high cost involved. Hence, the government may like to explore transiting into joint provision for a more sustainable approach to create optimal outcomes in the healthcare market. The government can also consider a subsidy, and apply means testing to only subsidise the lower income strata</p>	<p>Stand</p> <p>Substantiation</p> <p>Something Special</p>

	and not the entire population so that it achieves efficiency and equity, without significantly jeopardizing its state of fiscal health.	
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Levels	Descriptors	Marks
L3	Response analytically explains why direct provision may or may not be justified. It also considers explain an alternative policy. Explanations will address both efficiency and equity. Answer shows good use of examples. Max L3/8 if answer does not address equity	8-10
L2	Response somewhat explains why direct provision may or may not be justified. It may also consider explain an alternative policy. Explanations however may be cursory in nature and may not address both efficiency and equity. Answer may contain some use of examples. Max L2/7 if there is no alternative policy	5-7
L1	Response attempts to address the question but contain serious conceptual errors or shows the absence of the use of economic analysis. Answer may also not contain any examples.	1-4
E3	Well substantiated evaluative comments with some form of criteria	4-5
E2	Substantiated Evaluative comments with some implicit criteria	2-3
E1	Poorly substantiated evaluative comments	1

Essay Question 4

4. The Singapore economy contracted by 4.1 percent due to weakened external demand and significant global uncertainties. In response, the government committed close to \$100 billion in support of households and firms in the form of cash payouts, Wage Credit Scheme and various public health management measures.

Source: adapted from *Ministry of Finance*, Singapore, 2020

- (a) Explain the likely effects of the weakened external demand and global uncertainties on the components of the circular flow of income and the equilibrium level of national income. [10]
- (b) Assess whether the above policy measures are sufficient to improve the standard of living of the population in Singapore. [15]

Part a

Question Interpretation

Command	'Explain...effects' – make clear the cause-effect relationship
Content	Circular flow of income – injections, withdrawals Weakened external demand – fall in exports Uncertainties in global economy – global economic outlook National income
Context	Singapore
Approach	Using circular flow of income model, identify and explain which injections are affected and explain the multiplier process using the model. <ul style="list-style-type: none"> ▪ Intro: define circular flow of income ▪ Explain how the events above impact the injections of the circular flow of income ▪ Explain how a decrease in injections results in a multiplied fall in national income of the economy through the multiplier process

Suggested Answer

Part	Description	Remarks
Intro	Circular flow of income is an economic model that explains how the equilibrium national income of an economy is attained when the total injections into the circular flow of income equal to the total withdrawals. In the above preamble, weakened external demand and significant global uncertainties affect the injections into the circular flow of income, leading to a fall in the country national income through the multiplier process.	Definitions Overview
Body-P1	In a 4-sector economy, it comprises households, firms, government and foreign sector. The demand for firms' output arises not only from household spending (C) but injections (J) such as investment (I) e.g. purchase of real capital goods such as machineries and equipment, government expenditure (G) e.g. spending on building of roads or infrastructure, and export revenue (X) e.g. sales of goods to other countries.	P

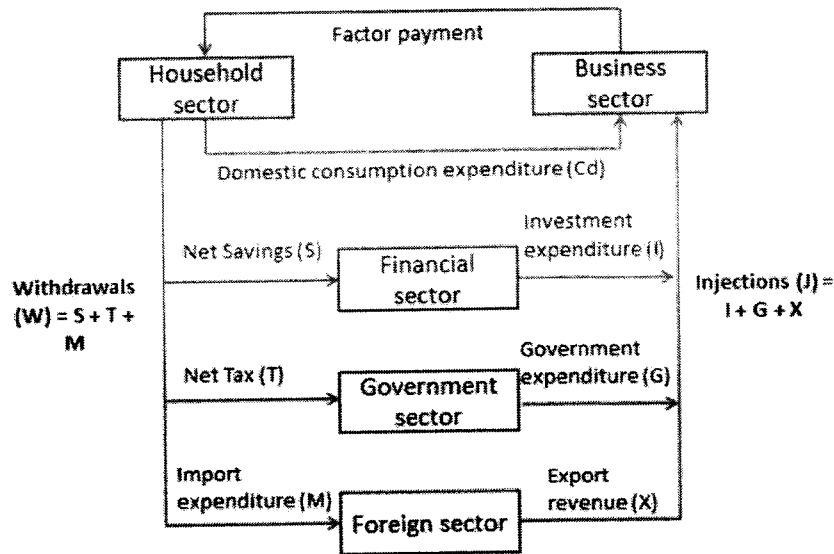


Figure 1: Circular flow of income in an open (4 sector) economy

Injections are autonomous spending that are not dependent on the current level of income. The effect of any injections is to cause the flow of income to expand.

In addition, as shown in the circular flow diagram in Fig. 1, there are withdrawals (leakages) when any income from households is not passed onto firms. Withdrawals can be in the forms of savings (S) e.g. household savings or corporate savings which are normally deposited in financial institutions such as banks, taxes (T) e.g. personal income taxes or corporate taxes paid to the government and import expenditure (M) e.g. purchases of goods made from other countries. The effect of any **withdrawals (W)** is to cause the flow of income to contract.

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Body- P2

The principle behind the circular flow model is that everyone's expenditure is someone else's income. In other words, production of the output is driven by expenditure and income. Hence, when the economy is in **equilibrium, Income = Expenditure = Output and at this level of national income Total Withdrawals = Total Injections.**

When injections do not equal to withdrawals, a state of disequilibrium will exist. This will set in motion a process to bring the economy back to the state of equilibrium.

When **external demand weakened**, this means the demand for a country's exports decreases. Exports is an injection into the circular flow of income. A fall in exports results in a decrease in injections.

At the same time, **global economic uncertainties** mean that the global economic outlook is bleak. Firms will revise their expected rate of returns downwards,

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	resulting in a fall in investment by both MNCs and domestic firms. Investment falls as a result.	
Body-P3	<p>Since both X and I decrease, this will give rise to total injections < total withdrawals.</p> <p>As $J < W$, there will be an accumulation of the inventories. Hence firm will scale down production in the next period which translate into hiring less labour which is a derived demand for producing the goods and services. Firms will pay out less factor income which decreases the national income and hence lower induced consumption based on a given marginal propensity to consume.</p> <p>Assuming a 4-sector economy with excess capacity, an autonomous decrease in exports revenue and investment of \$100 million will generate an initial decrease in income of \$100 million among households employed by firms. With the reduced income by \$100 million, households will reduce their consumption by \$60 million, depending on the size of their marginal propensity to consume (assume MPC 0.6), while reducing withdrawals by \$40 million in the forms of savings, taxes and imports (as given by the marginal propensity to withdraw at 0.4)</p> <p>Since one person's spending creates another person's income. The fall in consumption on domestically produced goods of \$60m results in a fall in income for another group of people who supply the consumer goods. They will in turn decrease induced consumption by \$36 million based on their MPC of 0.6 while withdrawals decrease by \$24 million.</p> <p>This cycle of reduction in spending and income will continue and the decrease in induced consumption and income gets smaller with each successive round as part of decrease in income is leaked out in the forms of $S + T + M$. The entire process will come to a completion when the total decrease in leakages (i.e. \$100 million) equals to the initial fall in injection (i.e. \$100 million) into the circular flow of income. The new equilibrium national income is a multiplied decrease based on the size of multiplier. [$k = 1/mpw = 2.5$]</p>	<p>P</p> <p>E</p> <p>E</p> <p>L</p>
Conclusion	<p>All in all, the final decrease in national income resulting from the fall in injections depends on the size of multiplier.</p> <p style="text-align: center;">Change in NI = change in injections x k</p> <p>This accounts for the negative growth of 4.1%.</p>	Brief Summary of Points

Levels	Descriptors	Marks
L3	<ul style="list-style-type: none"> • Answer covers sufficient breadth: <ul style="list-style-type: none"> ○ <i>explain how weakened external demand and global economic uncertainties result in a decrease in injections</i> ○ <i>explain how a fall in injections would decrease equilibrium level of income</i> • Answer has sufficient depth: <ul style="list-style-type: none"> ○ rigorous and detailed economic analysis on reverse multiplier process triggered by a fall in injections ○ relevant and precise use of economic concepts ○ relevant and clearly-labelled diagram (circular flow of income) to support economic analysis • Answer is relevant to the context of the question (i.e. Singapore) and applies real-world examples to support the analysis. 	8-10
L2	<ul style="list-style-type: none"> • Answer is mostly relevant to question requirements (i.e. multiplier process) • Economic concepts are relevant but may contain minor inaccuracies. • Economic analysis is accurate but incomplete • Attempts to address the context of the question but is incomplete. • Relevant diagrams are used but might not be accurately explained or applied to support economic analysis. 	5-7
L1	<ul style="list-style-type: none"> • Answer is mostly irrelevant to question requirements. • Economic concepts are largely irrelevant and/or inaccurate. • Unclear and/or inaccurate economic analysis. • Lacking in use of diagrams or wrong diagrams are used (i.e. AD – AS diagram). 	1-4

Part b

Question Interpretation

Command	'Assess whether' – multiple perspectives
Content	Standard of living – material well-being and non-material well-being Increase in government spending: <ul style="list-style-type: none"> ▪ Cash-payouts → C ↑ ▪ Wage Credit Scheme → fall in COP ▪ public health management measures → improve health
Context	Singapore
Approach	While the above policy measures can bring about a higher material well-being as well as non-material quality of life, there are also other measures that can be adopted. Thesis 1: Explain how the above policy measures can improve material SOL Thesis 2: Explain how the above policy measures can improve non-material SOL Antithesis 1: Explain the limitations of the above policy measures on improving SOL Antithesis 2: Explain alternative measures that can improve SOL, in light of the current context and the nature of Singapore economy. Synthesis Criteria – nature of Singapore economy, the root cause of the problem and the priority of Singapore government

Suggested Answer

Part	Description	Remarks
Intro	Define SOL <ul style="list-style-type: none"> ▪ SOL refers to the well-being of an average person in the economy. It comprises material well-being that depends on the quantity of goods and services consumed and non-material well-being that depends on the availability and quality of education and healthcare, quality of environment and leisure. <p>While an increase in government spending can bring about a higher material well-being as well as non-material quality of life, there are also other measures that can be adopted to ensure the improvement in the overall standard of living.</p>	Definition Criteria Overview
Body- T1	Using AD-AS analysis, explain how the policy measures would result in a rise in both AD and AS and thus be beneficial to Singapore's material standard of living as there is actual economic growth. <u>Effect on AD:</u> <ul style="list-style-type: none"> ▪ Cash-payouts to households are transfer payments given to lower income groups. This increases the disposable income of households, allowing them to have higher purchasing power to buy goods and services. This brings about a higher material SOL among the lower income groups. It also raises the level of C. ▪ Public health management measures also incur government expenditure on manpower and resources in public health sector. ⇒ With an increase in C and G, AD rises.	P E E L

	<p>⇒ increase in RNY from Y1 to Y5 is greater than the initial increase in autonomous spending from AD1 to AD2 due to the multiplier effect. Actual economic growth takes place.</p> <p><u>Effect on SRAS:</u></p> <ul style="list-style-type: none"> ▪ SRAS: Wage Credit Scheme (WCS) helps firms manage the rising labour costs while allowing employers to retain workers. As government covers part of the labour cost, this reduces firms' cost of hiring workers and hence SRAS increases. With a higher level of real national output, more workers are employed. This directly improves the material SOL of workers who are retained despite the economic uncertainties. <p>When both AD and SRAS increase, actual economic growth takes place. As long as real GDP increases at a higher rate than population growth, real GDP per capita rises. This means that on average more goods are produced and available for consumption. Hence, material SOL improves.</p>	
Body- T2	<p>The above measures can also improve Singapore's non-material standard of living.</p> <p>With the use of WCS to retain workers, unemployment is reduced. Lower unemployment is usually associated with lower crime rates and residents will enjoy a safer environment. Furthermore, there will be less social discontent and lower risks of riots. This increases the non-material aspect of SOL among people in the country.</p> <p>Various public health management measures can also improve the non-material standard of living. With improved network of hospitals, public health services become more readily available to people. The improvement in healthcare system therefore raises the life expectancy of the country's residents, improving the non-material SOL. This will increase the human development index (HDI) of the country, which is a composite index comprising real GNI per capita (PPP), the life expectancy as well as the mean years of schooling. One recent hospital that the Singapore government built more recently is Sengkang Hospital that has helped to relieve some pressure from the overall healthcare system.</p>	
Body- AT1	<p>However, there are limitations of the above policy measures in improving SOL</p> <ul style="list-style-type: none"> ▪ With AD rises, the extent of increase in real GDP per capita and hence material SOL depends on the size of k, which is typically small for a small and open economy. As explained in part a, the size of k is inversely related to marginal propensity to withdraw. In the context of Singapore, marginal propensity to import is high given the lack of natural resources in a small economy. Compulsory saving in the form of Central Provident Fund also leads to high marginal propensity to save. As a result, the extent to which real GDP increases could be less significant and hence the improvement on SOL is of limited extent. 	P E E L

	<ul style="list-style-type: none"> ▪ Whether higher income among households will translate to higher consumption of goods and services to enhance material SOL depends on consumers' confidence. During economic uncertainties, households may choose to save instead of increasing their consumption on goods and services. In this case, the impact on material SOL may be limited. ▪ Such measures on increasing govt spending of \$100 billion create a heavy burden on govt budget. In particular, cash payouts cannot be sustained in the long run. To improve material SOL among lower income households, other measures are required in addition to fiscal transfers. 	
Body-AT2	<p>Other measures are needed to improve SOL [Any 1 of the following – explain the mechanism and evaluate its effectiveness]</p> <ul style="list-style-type: none"> ▪ For lower income households, supply side policy focusing on retraining of workers and upgrading of skills can be adopted to increase labour productivity. This results in them able to take up higher paying jobs and enjoy higher material SOL. ▪ To improve material SOL through higher real GDP, exchange rate policy such as depreciation can be used to improve export competitiveness when foreign trading partners seek cheaper alternatives at times of economic slowdown. ▪ To improve material SOL through higher real GDP, signing of FTAs such as RCEP (Regional Comprehensive Economic Partnership) helps to overcome the uncertainties in the external demand. ▪ To improve non-material SOL which also depends on the quality of environment, policies such as taxes, rules & regulation are required to reduce negative externalities to improve the quality of air. 	P E E L
Conclusion	<p>Synthesis [Stand] Based on the above analysis, it can be concluded that the measures featured in the preamble are necessary but not sufficient in improving SOL of the population in Singapore.</p> <p>[Substantiation] Given that export is the largest component of Singapore's AD, the fall in external demand is likely to have significant adverse impact on economic growth and hence the material SOL of the population. In view of this, it is necessary to boost domestic demand in C at times of global uncertainties to slow down the decline in AD.</p> <p>Among all types of govt spending, transfer payments such as cash payouts provide immediate reliefs to households to maintain and improve their materials SOL. Equally important is government spending on Wage Credit System to help workers to stay employed to maintain their purchasing power. In comparison, health management measures have greater impact on current non-material SOL as well as contributing to higher SOL in the future.</p> <p>[Something special] Since the uncertainties are largely caused by economic slowdown of major economies of the world and trade tension between US and China, establishing trade relationship and adopting FTAs such as RCEP will go a long way in improving SOL of the population in the future.</p>	

	<p>[Something special] Increase in Govt spending generally can improve SOL. The extent to which material and non-material SOL improves will depend on which area gov't spending has targeted at. This in turn depends on the priority of the government. If ensuring higher SOL among lower income group is the government's priority, then Wage Credit Scheme and transfer payments produce the greatest impact. On the other hand, if the gov't priority is on environmental sustainability for future SOL, then gov't spending on promoting green technology will be most effective in improving the quality of life in the future.</p>	
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Levels	Descriptors	Marks
L3	<ul style="list-style-type: none"> • Answer is relevant to question requirements and covers sufficient breadth: <ul style="list-style-type: none"> ○ explains benefits of an increase in government spending in terms of Singapore's material and non-material standard of living. ○ evaluates the extent to which an increase in government spending improves Singapore's material and non-material standard of living ○ explains and evaluates alternative policies • Answer has sufficient depth: <ul style="list-style-type: none"> ○ rigorous and detailed economic analysis that demonstrate strong understanding of factors affecting Singapore's material and non-material standard of living ○ relevant and precise use of economic concepts (AD/AS analysis, material and non-material standard of living); ○ accurate and clearly-labelled diagrams (i.e. AD – AS diag) to support economic analysis • Answer is relevant to the context of the question and applies real-world examples to support the analysis. 	8-10
L2	<ul style="list-style-type: none"> • Answer is mostly relevant to question requirements. • Economic concepts are relevant but may contain minor inaccuracies. • Economic analysis is accurate but incomplete or lacks precision. • Attempts to address the context of the question but is incomplete. • Relevant diagrams are used but might not be accurately explained or applied to support economic analysis. • Alternative policies are not well explained and evaluated 	5-7
L1	<ul style="list-style-type: none"> • Answer is descriptive and largely irrelevant. Students merely regurgitate the determinants of material and non-material standard of living • Concepts are used with limited explanation • Lacking in use of diagrams or wrong diagrams are used. 	1-4
E3	<ul style="list-style-type: none"> • Stand is well-justified with good economic analysis • Shows clear understanding of the question and context of Singapore • Able to provide insightful comments and recommendations based on criteria 	4-5
E2	<ul style="list-style-type: none"> • Stand is justified • Limited economic analysis with insightful comments that are not adequately developed. 	2-3
E1	<ul style="list-style-type: none"> • Stand is poorly justified 	1

Essay Question 5

5. While there was resurgent demand driven by strong consumer spending and some uptake in investment as countries are approaching a post COVID-19 state, many economies still faced the problems of a persistently tight labour market and lingering supply-side challenges. All these have put the brakes on economic recovery.

Source: adapted from *United Nations*, 2022

- (a) Explain how the combination of factors mentioned above could cause [10] macroeconomic problems in Singapore.
- (b) Discuss whether the policies aimed to address the above problems will [15] inevitably create trade-offs for the Singapore economy.

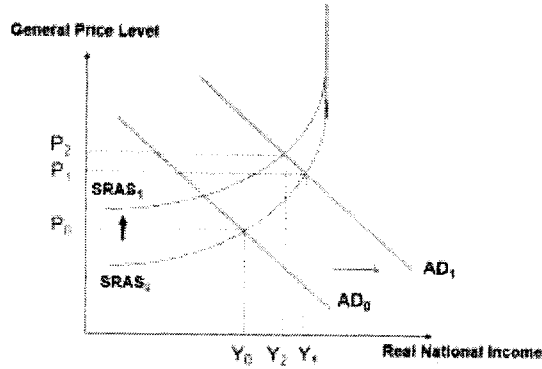
Part a**Question Interpretation**

Command	'Explain how' – make clear the reasons and the process
Content	Economic problems
Context	Trigger events are: <ul style="list-style-type: none"> - Resurgent demand driven by strong consumer spending - Uptake in investment - Persistent tight labour market - Lingering supply side challenges Impact on Singapore economy
Approach	Using AD-AS framework, identify and explain how the events affect economic performance and result in macro issues.

Suggested Answer

Part	Description	Remarks
Intro	Clarify economic issues faced by an economy are slow or negative economic growth, high unemployment, high inflation and balance of payment deficit. These can be caused by changes in AD or AS or both.	Definitions Overview
Body- P1	Explain how resurgent demand of C and I increase AD at post COVID-19 situation. At post Covid-19 situation, economic activities are expected to restore to pre-pandemic level as governments relax the restrictions on travelling. As such, consumers' confidence improves, and households spending on goods and services increases due to their pent-up demand. The post Covid-19 state also improves the economic outlook. With	P E E

	better business sentiment, the expected rate of returns from investment improves and hence firms will undertake investment on new capital goods. With a rise in C and I, AD rises.	L
Body- P2	<p>Explain how tight labour market & supply side challenges reduce SRAS.</p> <p>In many European countries and in the US economy, there was acute labour shortage across many industries (including manufacturing, construction, logistics, shipping and transport) making it difficult for firms to obtain labour. This problem of tight labour market is also experienced domestically. Singapore is historically reliant on foreign talent, and Covid-19 has made it difficult to attract such workers. Even after the removal of travel restrictions, foreign labour in Singapore has fallen by more than 10%. The tight labour market bids up the wage rate of workers. Holding other costs constant, firms experience a rise in their cost of production. This reduces the aggregate supply of goods and services decreased drastically.</p> <p>More importantly, aggregate supply of goods is further aggravated by supply chain disruptions. In a globalised world, the production of a good often involves obtaining raw materials, component parts and intermediate inputs across multiple national boundaries to be incorporated into finished products. Shortage of a component part or disruption in production in one country will impact other related industries. For instance, the acute shortage of semiconductor microchips has resulted in a fall in supply of a wide range of final products including cars, home appliances and smartphones. Countries importing component parts that are in acute shortage will see their production cost rising drastically, leading to a fall in aggregate supply.</p>	<p>P</p> <p>E</p> <p>E</p> <p>L</p>
Body-P3	<p>Despite having a fall in AS that can potentially decrease national income, there is likely to be a significant increase in AD due to the pent up demand during COVID-19, leading to inflationary pressure and drag on the economy.</p> <p>With reference to Fig 1, arise in AD with constant AS can bring the economy from Y_0 to Y_1 and general price level also rises as the economy is operating close to full employment. The rise in AD creates shortages of goods at the initial general price level, exerting an upward pressure on price. As firms increase production and the economy is close to full employment with limited spare capacity, the competition for resources means that firms can only increase output at a higher price.</p>	P



As shown in Fig 1, a rise in AD with constant AS can bring the economy from Y_0 to Y_1 and general price level also rise as the economy is operating close to full employment. The rise in AD creates shortages of goods at the initial general price level, exerting upward pressure on price. As firms increase production and the economy is close to full employment with limited spare capacity, the competition for resources means that firms can only increase output at a higher price.

At the same time, the supply side challenges has resulted in higher cost of production, reducing SRAS and SRAS curve shifts upwards to $SRAS_1$. As such, the rise in AD and the fall in SRAS produce mutually reinforcing effect on general price level, resulting in high inflation as general price level increases from P_0 to P_1 .

In addition, the rising cost of production has put a brake to economic recovery. This is because the fall in SRAS to $SRAS_1$ has largely offset the effect of a rise in AD on national income.

The final outcome is national income only increased by a small extent from Y_0 to Y_1 . This results in the economy facing slow growth and inflation.

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Conclusion	The coexistence of two economic problems, namely slow economic growth and high inflation, is therefore a cause for concern for the Singapore government.	Brief Summary of Points
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Levels	Descriptors	Marks
L3	Well-developed answer that explains how the events would impact the Singapore economy, with good use of relevant economic concepts. Excellent use of the AD-AS framework in the explanation of points. Answer demonstrates a good understanding of the Singapore context.	8-10
L2	Answers that explain at least 1 factor affecting A;D and AS respectively and the combined effects on the Singapore economy using relevant economic concepts but is not well-developed. Good use of the AD-AS framework in the explanation of points, but there are gaps in explanation.	5-7
L1	For an answer that shows some basic but largely unexplained knowledge of the relevant economic concepts. Many conceptual errors in explanation.	1-4

Part b**Question Interpretation**

Command	Discuss whether: multiple perspectives using TAS with a reasoned judgment.
Content	Macroeconomic Policies How they work to achieve boost economic growth and reduce cost push inflation in Singapore, Conflicts of objectives that may arise in the implementation
Context	Singapore – Small & Open Economy
Approach	Thesis: Policies used by Singapore to boost economic growth & reduce cost push inflation result in trade-offs/conflict in objectives Anti-thesis: Policies used by Singapore to boost economic growth & reduce cost push inflation result in trade-offs/conflict in objectives Synthesis Criteria - nature and state of Singapore economy, root cause of the problem and ability to mitigate conflicts that may arise

Suggested Answer

Part	Description	Remarks
Intro	Introduction: Context: Policies implemented by the government to achieve sustainable and inclusive economic growth, low unemployment, low and stable rates of inflation and a healthy balance of payments position may often result in trade-offs with other objectives.	Context

	<p>Overview: This part of the essay will consider if the policies aimed to increase the rate of economic growth and lower cost push inflation does indeed cause trade-offs for the Singapore economy.</p>	Overview
Body- T1	<p>Policy aimed to increase economic growth rate for Singapore may cause trade-offs for Singapore's economy.</p> <p>Expansionary Fiscal policy aimed to increase economic growth rate for Singapore may cause trade-offs with price stability and/or a healthy balance of payments position.</p> <p><u>Explain how the policy works to increase rate of economic growth</u></p> <p>To stimulate economic growth, the Singapore government can use expansionary fiscal policy aimed to increase AD to boost actual economic growth. This may involve increasing government expenditure on infrastructure and or reducing taxes like personal income and corporate taxes.</p> <p>An increase in government expenditure directly increases the G component of AD while the cut in personal and corporate taxes cause the disposable income of households and after-tax profits of firms to increase, increase the C and I components of AD respectively. The increase in C, I and G would cause the AD to increase, ceteris paribus, causing many rounds of increases in income and income-induced consumption, resulting in a larger increase in real national income via the multiplier effect, boosting economic growth.</p> <p><u>Explain the trade-offs that may arise:</u></p> <p>As the Singapore economy is close to full employment, the increase in AD from AD1 to AD2 in Figure 1 due to increased spending on infrastructure may result in demand pull inflation with little increase in real national income. This arises as the increase in AD causes a shortage at original price level that exerts upward pressure on price. To benefit from the higher prices, firms increase production which gives rise to greater competition for the limited resources available, bidding up resource prices. As firms incur a higher cost of production, they will only be willing and able to increase output if they receive a higher price. Thus, the GPL in the economy increases from OP1 to OP2 as shown in Fig 1.</p>	<p>Point</p> <p>Elaboration and Example</p>

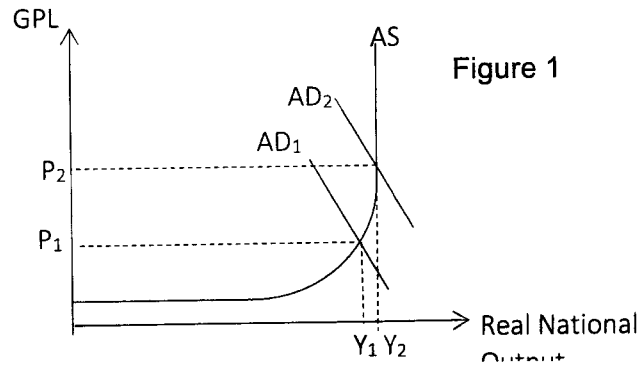


Figure 1

The higher general price level may cause difficulties for the economy and the various economic agents in the economy. The higher prices may erode export competitiveness, resulting in a loss of revenue and lower profits for firms producing exports that have price elastic demand. In addition, fixed income earners may experience a fall in the real value of their income, resulting in lower purchasing power and a fall in their material standard of living.

And/Or

The higher prices due to the expansionary fiscal policy may also cause a fall in export revenue due to the higher export prices. Assuming demand for exports is price elastic and imports remain unchanged, the higher prices of exports cause a more than proportional fall in quantity demanded of exports, causing net exports to fall. The fall in export revenue may worsen the balance of trade of Singapore, causing a worsening of Singapore's balance of payments, ceteris paribus.

Thus, the expansionary fiscal policy implemented to boost the rate of economic growth in Singapore may result in higher rates of demand pull inflation and/or worsen the balance of payments position of Singapore.

Link

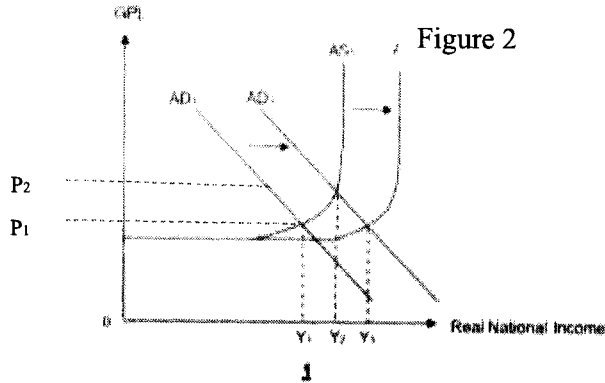
Body- AT1

However, the use of expansionary fiscal policy with secondary supply side effects to promote economic growth may not cause a trade-offs to the Singapore economy.

Given that the preferred expansionary fiscal policy tool of the Singapore government is to increase the expenditure on infrastructure such as building more MRT lines, this would increase the capital stock of Singapore in the long run, increasing its productive capacity. This is likely to reduce any inflationary pressures that Singapore may face due to the increase in AD.

Point

Elaboration Example

	<p>As seen in Fig 2, the increase in GPL due to increase in AD is eliminated by the increase in productive capacity which increase LRAS from AS₁ to AS₂. As a result GPL remains at P₁.</p>  <p style="text-align: center;">1</p> <p>Thus, the use of an expansionary fiscal policy with a secondary supply side effect, can eliminate any trade-offs that may arise due to the use of the fiscal policy.</p> <p>Note: Students may also explain that the use of interventionist supply-side policies to promote economic growth may not cause trade-offs to the Singapore economy.</p>	Link
Body- T2	<p>Exchange rate centred monetary policy aimed to reduce cost push inflation for Singapore may cause trade-offs for Singapore's economy.</p> <p>Explain how the policy works to reduce cost push inflation Faced with import cost-push inflation due to supply chain disruptions, Singapore may choose to appreciate its currency to reduce cost push inflation. With the appreciation, domestic price of imports decreases. This causes a fall in the cost production for firms using imported raw materials, assuming all other cost remain unchanged. As profits rise, firms would be willing and able to sell each level of output at a lower price. This causes the SRAS to rise, shifting downwards, resulting in a fall in GPL. This would also increase real national income, increasing actual growth for Singapore.</p> <p>Explain the trade-offs that may arise: However, with the appreciation, foreign price of exports rises while the domestic price of imports falls. Assuming the PED for both exports and imports > 1 due to many substitutes available for them, this results in a more than proportionate fall in quantity demanded of exports and a more than proportionate rise in the quantity demanded of imports. This results in a decrease in net exports and thus a worsening of the BOT and ceteris paribus, the balance of payments position of Singapore.</p>	Point Elaboration Example

	<p><u>And/Or</u> The fall in net exports may cause a fall in AD, ceteris paribus, causing a larger decrease in real national income of Singapore via the reverse multiplier. This would cause a fall in production of goods and services, resulting in a fall in the derived demand for labour, increasing cyclical unemployment.</p> <p>Thus, the use of exchange rate centred monetary policy to reduce cost-push inflation may cause trade-offs to the Singapore economy.</p>	Link
Body-AT2	<p>However, the use of exchange rate centred MP to reduce cost-push inflation may not cause trade-offs to the Singapore economy.</p> <p>Aware of this problem that an appreciation may cause of export revenue, Singapore pursues a policy of gradual and modest appreciation of the exchange rate to promote price stability as a sound basis of economic growth during most periods. This policy ensures exchange rate stability, raising confidence in the Singapore economy to attract investment and therefore increase foreign direct investments. At the same time, the gradual appreciation of the currency ensures that cost push inflation is reduced without compromising economic growth significantly as the negative effects of the appreciation on export prices are partially offset by the fall in cost of imported raw materials. Thus, the increase in export prices are kept minimal. In addition, with greater price stability, Singapore would be able to attract FDIs which would increase the capital stock and therefore productive capacity of Singapore exerting further downward pressure on prices, reducing GPL and promoting export competitiveness.</p> <p><u>Optional</u> Moreover, the government can also combine the use of interventionist supply side policies like the implementation of training grants and R & D grants to increase productivity of labour. This would increase the quality of resources, increasing productive capacity of Singapore. This again would exert further downward pressure on prices, reducing GPL and promoting export competitiveness, mitigating any fall in export revenue that may arise due to the appreciation of the Singapore dollar.</p> <p>Thus, the use of exchange rate centred monetary policy to reduce cost-push inflation may not necessarily cause trade-offs to the Singapore economy.</p>	Point Elaborate Example
AT 3	<p>The use of supply side policies aimed to increase economic growth rate and reduce cost push inflation for Singapore may not cause trade-offs for Singapore's economy.</p> <p>Supply side policies to stimulate economic growth and reduce cost push inflation may not have the conflicts in objectives that were discussed earlier with regards to demand management policies and</p>	Point

	<p>thus may not lead to trade-offs for the Singapore economy. Singapore spends heavily on grants for R & D for achieve process innovation to reduce AC of production with greater efficiency in the use of resources through incentives like PIC (Productivity and Innovation Credits). In addition, the many training schemes available like SkillsFuture, Continuing Training & Education (CET), etc. help to reduce unit cost of production by raising the productivity of workers. These spending on transfer payments would increase the AD through C and I components of AD. In addition, both these schemes increase both the SRAS through lowering unit cost of production and increase LRAS by increasing efficiency and productivity of the resources, leading to higher growth, lower prices and increased employment, benefitting producers in terms of profits, consumers in terms of standard of living and government in terms of achieving better economic performance as can be seen in Figure 3.</p> <div data-bbox="430 873 1069 1299" style="text-align: center;"> <p style="text-align: right;">Figure 3</p> </div> <p>Thus, the use of interventionist supply side policies to boost growth and lower cost-push inflation may not cause trade-offs for the Singapore economy.</p>	<p>Elaborate Example</p> <p>Link</p>
<p>Conclusion</p>	<p>Whether the policies aimed to promote growth and reduce cost-push inflation in Singapore often results in trade-offs due to conflicts that exist between macroeconomic objectives. However, these trade-offs can usually be resolved in the long term with careful choice of policy instruments for e.g. the use of expansionary FP with secondary supply side effects, given the nature and state of the economy, address root cause of the problem, for e.g. the use appreciation policy to reduce cost-push inflation, having a combination of policies for e.g. the use of supply side policies with expansionary FP and appreciation of the currency.</p> <p>These would ensure that the policies bring about the desired effect with minimal trade-offs on the Singapore economy.</p>	<p>Stand Substantiation-</p> <p>Something Special-</p>

Levels	Descriptors	Marks
L3	<ul style="list-style-type: none"> For an answer that is able to clearly explain Singapore's economic policies to address both problems identified in Part (a) Good economic analysis of how the working of the policies and the trade-offs it may cause to the Singapore economy. Balanced analysis Answer shows good contextualization to policies used by the Singapore government to address the 2 problems highlighted in Part (a) 	8-10
L2	<ul style="list-style-type: none"> For an answer that is able to identify and explain Singapore's economic policies to address both problems identified in Part (a); Explanations may not be fully-developed and may not contain clear explanations of how the working of the policies may cause trade-offs to the Singapore economy. Answer may not be well-contextualised Max 6 if the response only explains and evaluates policies and trade-offs to one problem 	5-7
L1	<ul style="list-style-type: none"> For an answer with limited understanding of Singapore's economic policies; lacking clear explanation of how the working of the policies may cause trade-offs to the Singapore economy <p>One-sided answer.</p>	1-4
E3	<ul style="list-style-type: none"> Stand is well-justified with good economic analysis. Shows clear understanding of the question and context of Singapore. Able to challenge assumptions and provide insightful comments and recommendations based on criteria. 	4-5
E2	<ul style="list-style-type: none"> Stand is justified. Limited economic analysis with insightful comments that are not adequately developed. 	2-3
E1	<ul style="list-style-type: none"> Stand is poorly justified 	1

Essay Question 6

6. Governments around the world will turn increasingly protectionist to try to limit the economic damage from the coronavirus pandemic causing significant changes in the direction and composition of trade between countries.

Source: adapted from *CNBC*, 2020

- (a) Explain why a country's pattern of trade may change over time. [10]
- (b) Assess if protectionist policies can ever be justified during a period of worldwide recession. [15]

Part a**Question Interpretation**

Command	Explain why – Elaborate on reasons
Content	Factors that would change a country's pattern of trade <ul style="list-style-type: none"> - Demand factors - Supply factors - Government trade policies
Context	No specific context – Can use examples from any country
Approach	Para 1 : Demand factor Para 2 : Supply Factor Para 3: Government Trade Policy(s)

Suggested Answer

Part	Description	Remarks
Intro	<p>Introduction</p> <p>Pattern of trade refers to the direction, volume and composition of trade between countries. Composition of trade refers to what is being exported or imported, while volume of trade refers to the real value of goods and services that is being exchanged. Lastly, direction of trade refers to the direction of exports and import flows.</p> <p>In this part, the demand factors, supply factors and government trade policies that are likely to cause the pattern of trade to change will be discussed</p>	<p>Definitions</p> <p>Overview</p>
Body- P1	<p>Changes in demand preferences (demand factor)</p> <p>Increase in economic growth is a factor that can change an economy's pattern of trade.</p> <p>For countries like China, the high economic growth over the last decade and a half has led to an expanding middle income earners, hence rising affluence and changing lifestyles. The</p>	<p>Point</p> <p>Elaboration Example</p>

	<p>rising affluence has changed the economy's consumption pattern in favour of high-end branded luxury goods e.g. the luxurious Ferraris and BMWs as well as high end luxury clothing leather products from brand like Gucci, Prada.</p> <p>These have resulted in an steep increase in the volume of imported luxury goods, changing China's pattern of trade towards importing luxury goods.</p> <p><u>OR</u></p> <p>Changing Demographics & Taste and Preferences Where there are changes in population sizes as well as population demographics, the global demand pattern will also change. For example, ageing countries like Japan will demand more healthcare goods and services like medical tourism and wheelchairs for the elderly from Singapore. This is likely to result in more of such goods imported into Japan and/or produced and exported by Japan, changing Japan's pattern of trade.</p> <p>Link based on demand factor selected</p>	Link
Body- P2	<p><u>Change in pattern of trade due to change in comparative advantage (Supply factor)</u></p> <p>Another factor that causes a change in an economy's pattern of trade is the change in its comparative advantage. According to the principle of comparative advantage, a country should specialise in the good it has comparative advantage in, i.e. the good it can produce at lower opportunity cost than its trading partners, ceteris paribus.</p> <p>Change in comparative advantage can be due to changes in factor endowment, technological advancement and government policies.</p> <p>A change in an economy's pattern of trade due to changes in its or its trading partner's state of technology. The US, for example, may have lost its CA on high end manufactured products due to China's rapid technological development and advancement enabling China to produce some high end manufactured goods at lower opportunity cost than its trading partners like US.</p> <p><u>OR</u></p> <p>China's rising number of highly skilled and efficient workers has led to rising productivity and hence the ability to produce high quality goods at lower opportunity cost than its trading partner, making it an exporter of higher end manufactured goods instead of being largely an importer in precious years.</p>	Point Elaboration Example

	<p>This results in an increase in volume of high end manufactured products exported by China while US exports less and imports more of such goods.</p> <p>Therefore, changes in comparative advantage would affect the pattern of trade</p>	Link
Body-P3	<p><u>Government trade policies</u></p> <p>Increase in protectionist policies such as increase in import tariffs and increase in subsidies to stimulate domestic firms' production, will artificially increase import prices and lower domestically produced goods, leading to a fall in import of the affected goods.</p> <p>For example, an US increase in import tariffs of solar glass panels/steel will artificially raise the price of imported solar glass panels/steel as consumers' demand shift to the domestically produced one. This will lower its import of solar glass panels/steel from China, hence changing the direction of its trade pattern.</p> <p><u>OR</u></p> <p>Bilateral and regional free trade agreements such as ASEAN Economic Community (AEC), North America Free Trade Agreement (NAFTA) and the EU Customs Union have led to trade creation between member countries, thereby changing the direction of patterns of trade of member countries.</p> <p>The Zero-tariff policy agreement among members of NAFTA, for example, has seen greater trade among the north American countries and less trade between north and south American countries.</p> <p>EU's common high tariff on non-members has artificially increased the prices of imports from non-member countries, enabling them to be each other's major trading partners.</p> <p>Link based on factor chosen</p>	<p>Point</p> <p>Elaboration Example</p> <p>Link</p>
Conclusion	Re-state key points	Brief Summary of Points

Levels	Descriptors	Marks
L3	<ul style="list-style-type: none"> Well-developed answer that thoroughly analyses the factors that change an economy's pattern of trade Good use of economic concepts Good scope and rigour, with good use of concept of comparative advantage and other relevant economic concepts, Good use of relevant examples. 	8-10
L2	<ul style="list-style-type: none"> Answer that explains the factors that change an economy's pattern of trade, Use of relevant economic concepts Some relevant examples but is not developed 	5-7
L1	<ul style="list-style-type: none"> For an answer that shows some basic but largely unexplained knowledge of pattern of trade. 	1-4

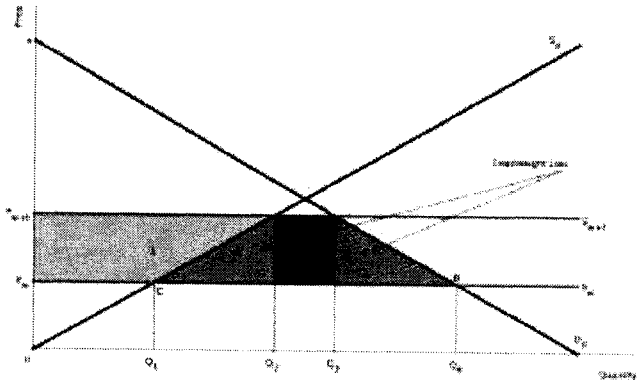
Part b

Question Interpretation

Command	Assess – Provide multiple perspectives, weigh the various arguments to present a reasoned conclusion
Content	Arguments for protectionism Arguments against protectionism
Context	Worldwide recession, no specific country
Approach	<p><u>Thesis:</u> Protectionist policies may be justified during a period of worldwide recession as they help slowdown the contraction of the economy.</p> <p><u>Anti-thesis:</u> Protectionist policies may not be justified during a period of worldwide recession as they worsen allocation of world resources.</p> <p><u>Evaluative conclusion:</u> Stand, Substantiation and Something Special using STRAWS</p>

Suggested Answer

Part	Description	Remarks
Intro	<p>Introduction</p> <p>Recession refers to a situation where a country experiences negative economic growth for 2 or more successive quarters. A worldwide recession occurs where many countries throughout the world experiences recession.</p> <p>A worldwide recession may lead to a fall in global incomes which in turn reduces demand for countries' exports and may also cause a fall in domestic and foreign direct investments as expected rates of returns fall. This may cause a fall in AD which causes negative economic growth, increases cyclical unemployment and worsens the BOP position of countries. Many countries engage in protectionist measures to help</p>	<p>Definition</p> <p>Context</p>

	<p>reduce the magnitude of the negative effects of the recession on employment, income and BOP. Protectionism is a policy of sheltering of domestic industries from foreign competition in domestic markets. In this part, I will examine whether protectionist measures during a worldwide recession is justified by considering the benefits and limitations of protectionism during such a period.</p>	<p>Overview</p>
<p>Body- T</p>	<p><i>Protectionist policies during worldwide recession may be justified.</i></p> <p><u>Protectionism helps to slowdown decline in economic growth and employment as well as adverse BOP position</u></p> <p>Imposition of a tariff, for example, will raise the price of imports from P_w to P_w+t. This will reduce consumption of imports from Q_1Q_4 to Q_2Q_3 as consumers increasing consumption of domestic goods from Q_1 to Q_2.</p>  <p style="text-align: center;">Figure 1</p> <p>Protectionist measures like tariffs and quotas stimulate domestic production and this would help to prevent too drastic a fall in the country's real national income caused by the fall in export earnings in the light of worldwide fall in income. With an increase in consumption of domestically produced goods and net exports, cyclical unemployment is reduced. In addition, the fall in imports would also protect against the sharp worsening of the BOT and therefore the BOP as a result of the fall in exports due to the worldwide recession. Thus, protectionism helps slow down the decline in economic growth and employment as well as balance of payments position due to a worldwide recession</p>	<p>Point</p> <p>Elaboration Example</p> <p>Link</p>

	<p>Protectionist policies help to protect employment of domestic workers against unfair competition from foreign firms. Workers in developed countries have claimed that their jobs and therefore standard of living was being undermined by the import of cheap goods, which are cheap due to subsidies given by the government. Without protection, the local industries will be edged out by the foreign competitors and forced to close down, resulting in the fall in employment and standard of living. To protect their jobs, they hence press for higher tariffs and other means to keep out the goods. This argument has been used in the US to protect the automobile, steel and textile industries. Thus, during worldwide recessions, protectionism may be necessary to protect domestic workers from unfair competition from competitors who are able to sell at a lower price due to government support.</p> <p>Protectionist policies may also be used as a way of retaliating against trade partners engaging in protectionism. Western economies have often accused emerging economies of implementing protectionist measures. For example, they accuse China of subsidising their exports or artificially keeping the Renminbi under-valued so that the exports could be more price-competitive in foreign markets posing unfair competition to Western industries. As such, it was right to retaliate against such acts with punitive protectionist measures of their own to protect their economy and workers.</p> <p>Note: Students may also use arguments such as - Protecting infant industries - Protecting workers in declining industries But clear links must be made to context of worldwide recession.</p>	<p>Point</p> <p>Elaboration Example</p> <p>Link</p> <p>Point</p> <p>Elaboration Example</p> <p>Link</p>
Body- AT1	<p><i>Protectionist policies during a worldwide recession may not be justified.</i></p> <p>By imposing protectionist measures such as tariffs, countries and consumers could miss out on the gains from trade. In Fig. 1, consumers were initially consuming at Q4 and paying a price of P_w when there was free trade. As the government imposes a tariff, t, on the good, the price increases to P_w+t, and the quantity demanded reduces to</p>	<p>Point</p> <p>Elaboration Example</p>

	<p>Q3. This causes a loss of consumer surplus equivalent to the area (1+2+3+4). There is a loss in consumer surplus which is unaccounted for (areas 2 and 4). These are the deadweight loss resulting from the imposition of the tariffs resulting in allocative inefficiency.</p> <p>Tariffs imposed on intermediate good may increase cost of production and may worsen economic growth and employment.</p> <p>Tariffs on intermediate goods would also contribute to higher cost of production for firms. To maintain profits, forms would be willing and able to sell each level of output at a higher price. Thus, the SRAS falls and AS curves could be pushed up, from AS₁ to AS₂ (see Fig. 2). As prices increase, components of the aggregate demand such as consumption and investments could fall, resulting in a fall in output from Y₁ to Y₂, worsening economic growth and employment as the derived demand for labour would fall would lower levels of output produced.</p> <p>The higher cost of production and therefore GPL could further lower export competitiveness. Assuming $PED_x > 1$, X would fall further during this period of recession, worsening growth, employment and BOP further.</p> <div data-bbox="590 1153 949 1422" data-label="Figure"> </div> <p>Figure 2</p> <p>Thus, in such a situation, protectionist practices may not be justified.</p>	<p>Link</p>
<p>Body-AT2</p>	<p>Protectionist policies may breed inefficiency due to the lack of competition.</p> <p>With protection, they are not subjected competition from foreign producers and hence suffer from x-inefficiency, resulting in higher unit cost of production As such they may continue to be dependent on the protection even after the global economy improves and are unable to become internationally competitive on their own.</p>	<p>Point</p> <p>Elaboration Example</p>

	Thus, protection during worldwide recession may breed inefficiency and reduce chances of survival of domestic firms when the protection is removed.	Link
AT 3	<p>Protectionist policies by one country to protect their economy and workers may give rise to retaliation from trading partners</p> <p>When trading partners retaliate when a country imposes protectionist policies, this could limit the effectiveness of the initial protectionist policies, offsetting any benefits to growth, employment and BOP the country could have enjoyed due to the imposition of protectionist policies.</p> <p>In this situation, the protectionist policies may not be justified.</p> <p>Students may also use other factors like</p> <ul style="list-style-type: none"> - Beggar thy neighbour effect 	Point Elaboration Example Link
Conclusion	<p>Synthesis & Conclusion</p> <p>Protectionist policies may be necessary to safeguard the interests of consumers and producers during a period of worldwide economic recession in the short run. These protectionist policies should be a temporary measure to give workers time to develop relevant skills and to cushion adverse effects on the economy. Extending it for a longer term will breed inefficiency and invite retaliation/beggar thy neighbour effect from trading partners that will cancel off any benefit the country may have enjoyed.</p> <p>As such, countries may consider using protectionism as a short-term measure while it introduces other appropriate policies like long-term supply side measures to increase competitiveness of exports and import substitutes. These supply side policies would help to increase productivity and innovation to make the country's exports more competitive.</p>	Stand Substantiation Something Special

Levels	Descriptors	Marks
L3	<ul style="list-style-type: none"> • Balanced approach on whether it is justified for a country to adopt protectionism by examining all the benefits and costs of protectionism given the context of worldwide recession • Excellent use of analysis and examples to exemplify the above 	8-10
L2	<ul style="list-style-type: none"> • Imbalanced approach of whether protectionism is justified or is not justified during a worldwide recession. ie. One sided or if a balanced argument is given, it is probably limited in depth • Lacks scope and depth 	5-7

L1	<ul style="list-style-type: none"> • Answers are descriptive and largely irrelevant. Students merely regurgitate the pros and cons of protectionism without applying to context of worldwide recession • Concepts are descriptive or explained with many errors • Poor use of examples • Weak or inappropriate applications of the concepts 	1-4
E3	<ul style="list-style-type: none"> • Stand is well-justified with good economic analysis. • Shows clear understanding of the question and context of Singapore. • Able to challenge assumptions and provide insightful comments and recommendations based on criteria. 	4-5
E2	<ul style="list-style-type: none"> • Stand is justified. • Limited economic analysis with insightful comments that are not adequately developed. 	2-3
E1	<ul style="list-style-type: none"> • Stand is poorly justified 	1

