Section A

Question 1

Suggested Answers

(a) Using Figure 2,

(i) Summarise the variations in the stockpiles of wheat. [2]

- The stockpiles of wheat are expected to increase overall. (1m)
- The stockpiles fell from 2007 to 2008, rose from 2008 to 2010 and are expected to fall thereafter. (Any two variations – 1m)

Markers' Report

Data interpretation:
- Candidates need to be more careful with data interpretation. E.g.
  - "There is an overall rise in stockpiles from 2007 to 2010" - this statement is not given full credit because the entire period runs from 2007 to 2011. Hence, the statement should be rephrased as "There is an overall rise in stockpiles from 2007 to 2011".

(ii) Account for the abovementioned variations. [2]

Stockpiles of wheat depend on the global consumption and global production of wheat (0.5m) – For example, when global consumption was less than global production from 2008 to 2010, the stockpiles rose. However, when the global production is expected to dip below global consumption from 2010 to 2011, the stockpiles are expected to fall.

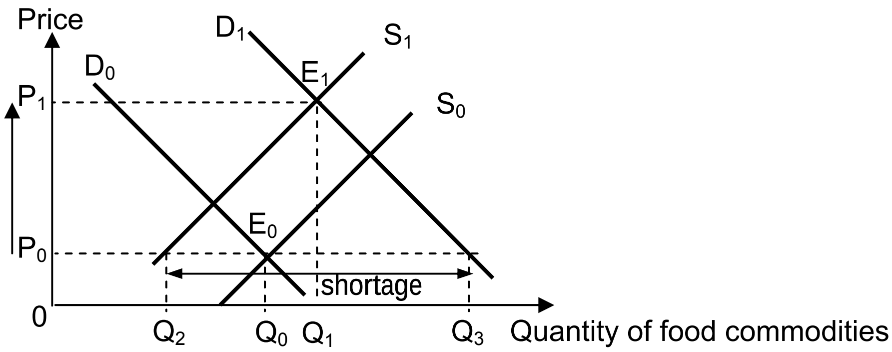
1.5m – 1m for why stockpiles rose (fell) and 0.5m for why stockpiles fell (rose)

Markers' Report

Question interpretation:
- Candidates should take note that they are instructed to use Figure 2 to answer (ii) as given in the question.

(b) With the aid of a diagram, analyse why prices of food commodities are expected to surge and remain volatile. [5]

The export ban by Russia reduces the world supply of wheat (Extract 2). Additionally, Russia is one of the top producers of wheat in the world (Figure 1). Besides that, the rise in demand for biofuels (Extract 1) leads to a rise in the derived demand for food commodities such as rice and wheat which are factors of production for biofuels.



The fall in supply will shift the supply curve to the left from S_0 to S_1 and the increase in demand will shift the demand curve to the right from D_0 to D_1, causing a huge shortage of Q_2Q_3 at the original price of $0P_0$.

Eventually, a new market equilibrium is reached at point E_1 where quantity demanded will once again be equal to the quantity supplied. In this instance, there is a surge in the price of food commodities from $0P_0$ to $0P_1$.

Volatility in the price of food commodities could be explained by the unpredictable changes in the demand for and supply of food commodities. In other words, when the demand for and supply of food commodities fluctuate, the price of food commodities would fluctuate as well.

L2	3-5	• Good application of demand and supply analysis with detailed reference made to a diagram • For 4m and above: Detailed explanation that takes into account simultaneous changes in demand for and supply of food commodities or application of relevant elasticity concept • Detailed explanation without accounting for the volatility in prices – max. 4m
L1	1-2	• Smattering answers • Glaring inadequacies are evident, e.g. incomplete diagram and incorrect explanation of the price adjustment process

Markers' Report

Question interpretation:
- Some candidates did not respond to the question, i.e. they did not explain why there would be a large rise in price of food commodities. This is despite drawing a diagram that illustrates both a rise in demand for and fall in supply of food commodities. In this case, the candidates should have commented that when demand rises and supply falls, there is a large shortage at the original equilibrium price. Hence, there would be a steep rise in the price of food commodities.

(c) (i) Discuss how the Australian government could intervene to reduce carbon emissions. [8]

Explain and evaluate two measures given in the case study:

- Tradable pollution permits are rights to firms to buy or sell pollution in artificially created markets. Firms can thus bid for a permit that allows them to create a fixed amount of pollution.
- The market for permits will reach a market clearing price where the marginal benefit of pollutant emissions are equal. Businesses can either buy permits or invest in technology to reduce pollution emissions, depending on which approach saves them money.
- In due course, when the government can reduce the supply of pollution limits, the total amount of pollution allowed can be reduced. This will make the permits more valuable, and thus more advantageous to firms that can reduce pollution levels at the lowest marginal costs.

Evaluation
If the quantity of permits is based on current production levels, there may be no advantage for firms that have already taken steps to control their pollution emissions.

The government could also invest in green technologies that reduce carbon emissions.

- For example, the Australian government could spend on R&D that reduces the sulphur content in fuel used by industries. Additionally, the government could subsidise the R&D efforts undertaken by private enterprises such as the development of machines that could run on biofuel instead of fossil fuel and electric cars.

Evaluation
The main problem with investment in green technology could be the ability of the government to finance its own R&D efforts or those undertaken by private enterprises. This increase in government expenditure could potentially cause the government to suffer from a budget deficit that may require it to raise taxes in the future.

The Australian government could impose a regulation that stipulates an expanded renewable energy target.

- For example, it could set a higher target for the use of renewable energy such as solar and tidal energy.
- Note that this measure should not be implemented by itself; it should be complemented by other measures such as investment in green technology. This is done so that firms would have the means to meet the higher target.

Evaluation
The advantage of the expanded renewable energy target is that it is simple and clear to understand. It could also be relatively easy to administer. Government officials could conduct checks to see that the firms do not fall short of the target.

Conclusion:
There are various ways in which the Australian government could adopt to reduce the level of carbon emissions. It is important for the government to implement both short-term and long-term measures that would complement each other.

L3	7-8	• Competent discussion of two measures taken from the case is evident; one of which has to be tradable pollution permits • Informed conclusion is provided; without conclusion – max. 7m
L2	4-6	• Some explanation and evaluation of two measures to reduce carbon emissions are evident • Two measures from the case are discussed but quality of discussion is not consistently good • Competent discussion of two measures – one from the case and one from supplementary knowledge, e.g. tax – max. 6m
L1	1-3	Smattering explanation of measures with limited evaluation

Markers' Report

Question interpretation:

- Some candidates only explained how the measures work to reduce carbon emissions without evaluating the effectiveness of these measures.

(ii) Comment on the impact of reduction in carbon emissions on economic growth. [5]

- Carbon emissions could be reduced by cutting down on the use of fossil fuel. This could mean that the level of production is reduced in the economy. As a result, there would be a reduction in real national output, which means that economic growth would fall.

- However, reduction in carbon emissions could lead to a rise in economic growth in the long run.
    - o The fall in the level of pollution could lead to a cleaner environment, which would then be more conducive for business operations. As a result, I could rise, which would lead to a rise in the quantity of capital goods. Hence, the productive capacity would increase, resulting in a rise in LRAS.
    - o Note that in this case, there is an increase in the full-employment level of national output or potential output, which represents potential economic growth
    - o Additionally, nation-wide enforcement of carbon emissions target could force firms to adopt more efficient methods of production. As a result, there would be a rise in efficiency, in other words the economy could produce more output given the same amount of resources such as fossil fuel. Hence, productive capacity would rise, leading to an increase in LRAS. Australia could thus enjoy potential economic growth.

Conclusion
Although reduction in carbon emissions could lead to a fall in economic growth in the short run, it would be myopic for any government not to control the level of carbon emissions.

L2	3-5	• Good application of AD-AS analysis with detailed reference made to diagram(s) • Both actual and potential economic growth are addressed • Overall assessment of the impact of reduction in carbon emissions on economic growth is evident
L1	1-2	• Smattering answers • Descriptive answers that do not use AD-AS analysis

Markers' Report

Question interpretation:
- When answering a question on "economic growth", candidates need to be aware that both "actual" and "potential" economic growth" need to be addressed.
- Many candidates mentioned that in an attempt to reduce carbon emissions, this will lead to a rise in cost of production for firms due to the need to purchase permits etc. This is correct but many went on to focus on how this rise in cost of production will lead to the fall in supply for the firm, leading to a rise in the price of their goods and assuming demand for the good is price elastic, quantity demanded will fall more than proportionately, hence hurting the total revenue of firms. However, this is a wrong focus on the firms' profit-maximisation goal!

(d) Discuss the effects of the tumbling pound on the balance of payments position of the UK. [8]

Introduction

The UK has been experiencing a balance of payments (BOP) deficit (Extract 4, paragraph 2). With the tumbling pound, in other words the pound is depreciating rapidly, the BOP could possibly improve. However, we cannot discount the possibility that the deficit could worsen.

Body

- When the UK pound depreciates rapidly, the foreign currency price of its exports will fall by a large extent. Assuming the demand for exports is price elastic, this will lead to a more than proportionate increase in quantity demanded for exports, ceteris paribus, and hence a rise in its export earnings.

- Rapid currency depreciation will also increase the domestic currency price of imports by a large extent. If the demand for imports is price elastic, a rise in price will result in a more than proportionate fall in quantity demanded for imports, ceteris paribus, leading to a fall in import expenditure.
- Hence, the UK's net exports will rise.
- Hence, there would be an improvement in the current account balance, ceteris paribus.

- There would be an inflow of foreign direct investments if foreign firms find that the cost of production in the UK has decreased in foreign currency due to the tumbling pound.
- Ceteris paribus, an inflow of long-term investment could lead to an improvement in the UK's capital account.

- However, when the pound depreciates sharply, the prices of imported food commodities and other raw materials would rise significantly in domestic currency. Hence, the cost of production would rise by a large extent. Rise in cost of production ➔ fall in SRAS ➔ general price level rises
- With rising general price level, the UK's exports would be less price competitive. As a result, export revenue would fall, leading to a fall in net exports. Ceteris paribus, the UK's current account could eventually worsen.

- With a weakening pound, firms that depend on imported component parts like PeopleVox would experience a rise in cost of production. Hence, they may withdraw their investment from the UK and move to other countries such as eastern Europe. Ceteris paribus, capital account could worsen.
- Since the pound has tumbled, speculators would expect the exchange rate to fall further. Thus, they would convert the pound to a foreign currency. This results in a capital outflow, hence, possibly a deficit in the capital account.

Conclusion
All in all, the tumbling pound could have short-term positive impact on the UK's BOP position. However, we cannot discount the long-term negative impact on both the current and capital accounts that could be brought about by the rise in inflation.

L3	7-8	• Competent two-sided discussion with good use of case evidence • Competent two-sided discussion with no informed conclusion – max. 7m
L2	4-6	• Some discussion of the positive and negative impact of tumbling pound on the UK's BOP is evident • For a competent two-sided discussion with some use of case evidence – max. 6m • For a competent explanation of positive or negative impact of tumbling pound on the UK's BOP – max. 5m
L1	1-3	• Smattering answers with inadequate length and rigour • Glaring conceptual errors are evident, e.g. tumbling pound leads to fall in net exports

Markers' Report

Question interpretation:
- Some candidates linked the rise in (X-M) to AD and economic growth, without realising that the question asks for impact of the tumbling pound on BOP.

Question 2

Suggested Answers

(a) (i) Compare the value of yuan in 2009 with that in 2006. [1]

The value of Yuan in terms of US$ has appreciated.

(ii) Explain a reason for the observation in (a)(i). [2]

From Table 1, China's GDP has been increasing from 2006-2009
This increases business optimism. Foreign firms expect the Chinese economy to grow further in the future. This could possibly lead to increasing profits. Thus they would invest more in China. This would increase the demand for Yuan. Thus there would be a shortage and Yuan would appreciate.

Markers' Report

1. Data interpretation
   - A positive percentage growth of imports which is decreasing implies TEm has increased at a decreasing rate. Students incorrectly explained that TEm is falling.

(b) Account for China's terms of trade position despite the changes in the value of yuan. [4]

TOT = [Index price of exports/index price of imports] X 100 (0.5m)

Appreciation of yuan should make China's terms of trade more favourable.

Reason: Appreciation of Yuan
With appreciation of yuan, price of exports in foreign currency increased, whereas the price of imports in yuan has decreased. This will result in a more favourable TOT for China. (1.5m)

However, from Table 1, China's terms of trade has become more unfavourable. (0.5m)

From Figure 1, there is a significant fall in world income in 2008-2009.
This suggests that there will be a significant fall in demand for China's exports, resulting in a drastic fall in the price of exports. This will lead to a deterioration of China's TOT despite an appreciation of the Yuan.

Markers' Report

1. Need more depth/rigor
   - Many students did not understand the question requirement and gave a one-sided response either explaining why TOT improved due to appreciation of Yuan or why TOT worsen as shown in Table 1.

(c) Discuss whether there "should be promotion of free trade as it benefits the economy in many aspects." [6]

i. With free trade, there will be removal of trade barriers. Goods which are exported to another country will now be cheaper due to the removal of trade barriers. Assuming demand for the exported goods is price elastic, this will lead to a more than proportionate increase in quantity demanded for exports, thus increasing export revenue. If the increase in export revenue is greater than the increase in import expenditure, thus (X – M) increases and improving the current account.

ii. With free trade, export sector would expand and with that, there could be greater inflow of FDI as the returns of investment in this sector would increase. With such capital inflow → improvement in capital account.

Therefore, there will be an overall improvement in BOP if both current and capital accounts improve.

However, with promotion of free trade, there is increasing competition. Thus countries will produce according to their comparative advantage. Abundance of labour in countries like India and China allows them to produce goods that are labour intensive in production at lower opportunity cost compared to developed countries. Thus, many developed countries have lost their comparative advantage in these industries. Thus there will be structural unemployment in these developed countries.

Conclusion
Though countries are mindful of the likely costs that may arise, generally, its benefits outweigh the costs.

Marking scheme

L3	5 – 6	Thorough explanation of at least three points on the benefits and costs (e.g. two benefits and one cost) of free trade with supporting evidence from the case study
L2	3 – 4	• Some explanation of the benefits and costs of free trade but analysis is not consistently rigorous, e.g. did not use AD-AS analysis or Y=AE analysis • Thorough explanation of one benefit and one cost of free trade with supporting evidence used for either benefit or cost – max. 4m
L1	1 -2	Smattering explanation of the benefits and/or costs of free trade

Markers' Report

1. Question interpretation
   - Students should not write about arguments for and against protectionism. The trigger here is free trade and not protectionism.
   - Common and wrong answers include free trade being bad because there is a need to protect infant industry, when intent of question was the merits & likely side effects of free trade.

(d) Explain how Beijing's move to put a "giant thumb on the scale" will give the Chinese an unfair advantage over their international rivals. [4]

China engaged in protectionism by "restricting exports of commodities such as silicon, coke and zinc" (Extract 6, para 2).

- These restrictions will cause a fall in the world supply of such raw materials since China is a large producer of such commodities (Extract 6, para 5). Hence, there will be an increase in the price of major inputs to Europe and US.
- With an increase in the price of inputs, this will result in a higher cost of production for Europe and US companies, eventually resulting in a fall in supply goods leading to higher price. Hence, this would result in a fall in export earnings and hence a worsening of the balance of trade for Europe and the US while China would enjoy increasing export earnings and an improvement in balance of trade.

Marking scheme:
- Interpretation of “giant thumb on the scale”: 0.5m
- Explanation of rise in market price of steel: 1m
- Explanation of fall in net exports for China’s trading partners: 2.5m

Markers’ Report

Need more depth/rigor
- Answer should not be confined to rise in COP to other countries when China restricts their output. Students need to link their answer to how China can gain more TRx and improve their balance of trade (unfair advantage) while the rest of the countries may experience a fall in TRx and worsen BOT.

(e) (i) Explain how the recession could affect a government’s budget balance. [3]

- With a recession, consumers would “stop spending” (extract 8, para 2). Thus there would be a fall in production and derived demand for labour. Hence, there is less income tax revenue collected by the government.
- In addition, government spending should be let rip. Government has to increase spending on infrastructure so as to get the economy out of recession.

Marking scheme:
- Shows understanding of components of budget balance: 0.5m
- Explanation of fall in tax revenue: 1m
- Explanation of rise in government expenditure: 1m
- Conclude that there could be budget deficit (in the case where tax revenue falls and G rises): 0.5m

Markers’ Report

1. Clarity in answer
    - To state the final status of the budget balance as deficit (likely to be a budget deficit). Vague to say budget balance worsen.

(ii) As a consultant economist, examine the use of protectionism and counter-cyclical fiscal policies in response to the global crisis. [10]

To raise the net exports, countries may decide to impose protectionist measures (e.g. “extra duties on goods supposedly dumped at below cost by exporters” (Extract 5, para 3) which are tariffs) on imported goods.

When an import tariff is imposed, the price of the imported good in the country will rise. Assuming that the demand for imports is price elastic, this would lead to a more than proportionate fall in the quantity demanded for imports. This would reduce the import expenditure.

At the same time, the tariff makes the domestically produced goods, which are substitutes for the imported good, relatively cheaper. The demand for domestically produced goods will increase, i.e. consumption expenditure rises.

An increase in X-M and C would lead to an increase in AD. There would be a multiplied increase in national income. The actual economic growth and fall in unemployment would help the country recover from a recession.

Evaluation

- Europe and the US announced co-ordinated action against China that has restricted exports of essential raw materials, raising fears of a damaging trade war in the global recession. (Extract 6, para 1)
- Given the current conditions, this can only be a temporary measure to increase economic growth and reduce unemployment. As shown from Extract 6, other countries like Europe and US may retaliate by imposing trade barriers on the China's exports too.

Government should consider the use of "counter-cyclical" fiscal measure, which is an expansionary fiscal policy.

- This policy could address the cause of the recession due to a lack of AD as the government can either increase government expenditure, e.g. spending on road improvement works, or reduce taxes to increase AD
- This will lead to an increase in AD causing an increase in real national output and hence level of employment increases. There will be a multiple increase in national income, hence achieving actual growth and lowering unemployment.

Evaluation

Effectiveness of fiscal policy to boost economic growth depends on size of the multiplier. For small open economies like Singapore, the multiplier size is small due to high marginal propensity to withdraw (MPW) arising from high marginal propensity to save (MPS) and marginal propensity to import (MPM). Hence, expansionary fiscal policy is not very effective to boost economic growth in Singapore. Therefore, government may have to spend even more or reduce tax further in order to achieve the desired outcome.

Rise in government expenditure on education, training and healthcare would lead to a rise in labour productivity (Extract 8, last para), which would bring about an increase in AS. The rise in AS makes it possible for the economy to have sustained economic growth with low inflation and full employment. Hence, achieving the macroeconomic goals.

Conclusion
In conclusion, protectionism is not ideal to counter the effects of an economic crisis and it would not be able to solve the root cause of the problem. It would create more problems instead.

Marking scheme

L3	7 – 10	• Good discussion of the 2 policies which are well-supported by economic analysis and case information • Policies clearly link to improvement in economic growth and lowering unemployment (the global crisis) • For 9m and above: Informed conclusion that includes a reasoned judgement
L2	5 – 6	• Some discussion of the 2 policies that are supported by some economic analysis and case information • Some links to increase economic growth and lowering unemployment • Only discussed protectionism which is well-supported by economic analysis and case information – max. 5m

L1	1 – 4	• Smattering of points; mere description of protectionism

Markers' Report

1. Question interpretation
   - This is a policy question. Students are to explain how the 2 policies work to lift an economy out of recession and reduce unemployment followed by an evaluation of the 2 policies. There is no need to explain another policy since the question only asks for these 2 policies.
   - This is not a question on arguments for and against protectionism (reasons for protectionism). As explained above, it is a question on how the 2 policies work to bring an economy out of a recession thus reducing unemployment.

Section B

3 Given the central economic problem, a government has to decide how much subsidies to give to higher education.

(a) With the aid of a production possibility curve diagram, explain the central economic problem. [10]

(b) Discuss whether giving subsidies for higher education is the most desirable measure. [15]

Part (a)

I. Introduction

The central problem faced by all individuals and all societies is the problem of scarcity. From this one central problem stems all the other economic problems.

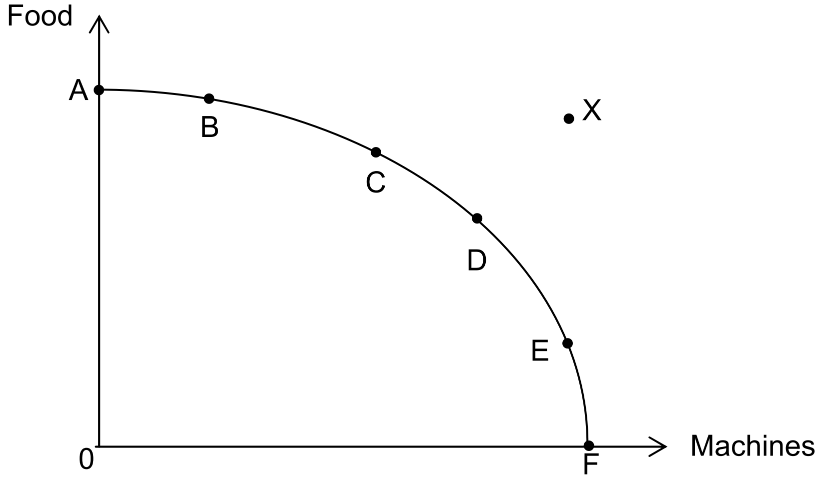
II. BODY

Scarcity arises because human wants are unlimited, but the limited resources are not enough to meet all of society's wants. Resources are limited because the world has only a given amount of it at any given period of time. Examples of resources are land, labour, capital and entrepreneurship. On the other hand, there are unlimited wants where the desire for even higher levels of consumption occurs once a particular level is attained. Similarly, desires increase over time as old wants are satisfied and new wants are created.

Choice is the act of selecting among alternatives and it involves sacrifices. For example, the more food a nation produces, the less resources there will be for producing other goods.

People must be rational and weigh the benefits and costs carefully when making a choice, which involves sacrifice. This sacrifice of alternatives in the production or consumption of a good is known as its opportunity cost. The opportunity cost of any action is the next best alternative foregone. This represents the real cost of the activity.

The concepts of scarcity, choice and opportunity cost can be illustrated graphically by using a production possibility curve (PPC). The PPC shows all the possible combinations of two goods that a country can produce within a specified period of time with all its resources fully and efficiently employed and at a given state of technology.



The central economic problem of scarcity is represented on the PPC by the unattainable combinations which lie outside of the PPC (e.g. Point X).

The concept of choice is represented by movement along the PPC. For example, the country can choose combination A which consists of all food and no machines or combination B which consists of both machines and food or any other combination on the PPC.

The concept of opportunity cost is illustrated by the negative slope of the PPC which is concave to the origin. Given the negative slope of the PPC, if the country wishes to produce more machines along the PPC, it must produce less food. The concave shape of the PPC describes the Law of Increasing Opportunity Cost.

III. Conclusion

Thus, scarcity is the central problem faced by all economies and it leads to choice-making in resource allocation. For any choice made, an opportunity cost is incurred.

Level	Marks	Descriptors
L3	7 – 10	• Good explanation of the central problem of scarcity using the PPC framework linking to resource allocation • Clear ranking of options in the explanation of opportunity cost
L2	5 – 6	• Able to apply economic concepts to explain the central problem but unable to link the related concepts of scarcity, choice and opportunity cost to resource allocation • For a good explanation of the central economic problem with how it affects resource allocation with no PPC analysis
L1	1 – 4	• Shows some knowledge of what scarcity is but lacking economic application

Marker's Report

I. Question Interpretation
1. Wrong Question Interpretation
a. Not on how higher education will lead to market failure
b. Not on ways to reduce increasing opportunity costs
c. Not on ways to shift PPC outwards
d. No diagrams drawn even though it was stated in the question

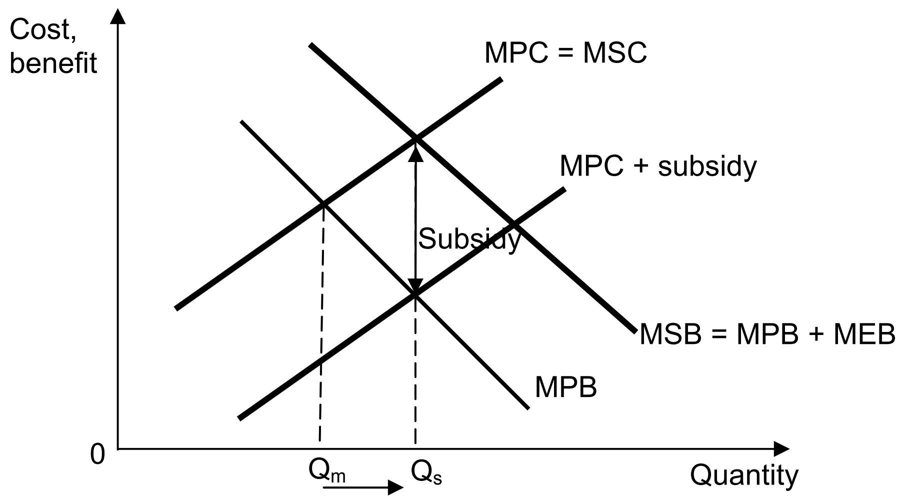
(b) Discuss whether giving subsidies for higher education is the most desirable measure. [15]

I. Introduction

- Higher education can be considered a merit good (i.e. a good with positive externalities or external benefits e.g. society as a whole benefits when higher productivity and real growth in gross national product rises with a better-educated work force.). Market failure occurs for merit goods because the price mechanism only takes into account private benefits and costs and thus there is divergence between private benefits and social benefits by the amount of external benefits. At the market equilibrium where marginal private benefit (e.g. a higher pay job) equals marginal private cost (e.g. tuition fees and forgone earnings), there is an underconsumption/underproduction of higher education.

II. Body

- To correct positive externalities, the government could give the tertiary institutions a subsidy equal to the amount of marginal external benefit to lower their cost of production. The MPC curve will shift vertically downwards by the full amount of the subsidy from MPC to MPC + subsidy
- Diagram



Evaluate how well subsidy works

- The main problem of using this method is that a government may suffer from imperfect information. Government may not know the size of the MEB. An overestimation or underestimation of the size of the external benefit would translate into a subsidy that is either more or less than the socially optimum amount.

- The government could directly build and provide another university e.g. Singapore University of Technology and Design to supplement the amount that the market provides. Such services can be provided free or at a rate determined by the government.

- Evaluate
  - o Public provision has the benefit of achieving national objectives where the market (private institutions) is not willing to invest in new unproven initiatives or projects that will take a long time to reap the benefits. New initiatives such as higher education for research and design could only be undertaken by the state.

- The government could work hand-in-hand with the private sector in encouraging the setting up of several institutions that offer degree courses through distance learning. The government could also make available affordable lease of state land to build campuses to encourage private provision of education services thus offering residents a more affordable alternative than an overseas education.

- Evaluation
  - o Diversity in the education landscape leading to greater choice and variety for consumers and employers particularly when certain courses are not available in the publicly funded institutions. The success of this initiative will help Singapore becomes the regional education hub for overseas students and presents another avenue for exports earning.

III. Conclusion

- While the government can implement the above methods to increase the consumption of higher education, there is also the need to complement these methods with providing scholarships and low interest loans plus encouraging the purchase of education insurance at the early stage a child's life.

Marking Scheme

Level	Marks	Descriptors
L4	12 – 15	• Competent explanation and evaluation of subsidy and thorough explanation of 2 other policies with clear economic application • For a competent answer that only discusses the measures that correct the market failure but omitted the explanation of positive externalities
L3	9 – 11	• Good explanation of at least 2 policies with ample evaluation and application to how measures increase the production/consumption of higher education
L2	7 - 8	• Some explanation of measures with evaluation but inconsistent application of economic concepts • Competent explanation and evaluation of subsidy only – max. 8m
L1	1 – 6	• Smattering of ideas • Descriptive answers

Marker's Report

1. Wrong question interpretation
   - Not on education per se, but higher education

   Hence alternative measures such as compulsory six years education may not be very relevant, unless there is evidence of clear link to higher education.

4 (a) Explain why a government might be concerned with inflation. [10]

(b) Discuss whether raising interest rate is the most appropriate policy to deal with the problem of inflation. [15]

Part (a)

I. Introduction
- Inflation is a situation where the economy faces a persistent increase in the general price level of goods and services.

II. Body

- High inflation results in greater risk and increased uncertainty of future returns on investment. This is because of the difficulty in making projections of future costs (which rise with inflation) and revenue. Hence, firms postpone investments.
- As investment falls, this will lead to a fall in AD with a consequent fall in national output through the multiplier effect. As national output falls, firms reduce production and retrench workers ➔ rise in unemployment

- As cost of living rises, households need more money for consumption and hence, less money is available for savings. At the same time, a significant rise in inflation erodes the real value of savings as nominal interest rate lags behind. Hence, savings is discouraged.
  ➔Less savings lead to a fall in loanable funds and eventually inflation also induces a rise in interest rates
  ➔ higher cost of borrowing funds ➔ a fall in productive investment.
  ➔ fall in future economic growth and employment.

- Effect on current balance
  - Fall in export earnings
    Ceteris paribus, domestic inflation raises price of a country's exports in foreign currency, thus making its exports less competitive in the world market. Hence export earnings will fall.
  - Rise in import expenditure
    Imports, on the other hand, will now be relatively cheaper. Hence, the demand for imports would rise, resulting in an increase in import expenditure.
    Thus, net exports would fall, which would worsen current account, ceteris paribus. A deteriorating current account is of particular concern to economies which are heavy dependent on trade.

- Effect on exchange rate
  - As seen earlier, inflation reduces the world demand for the country's exports due to loss of its export price competitiveness. Hence, this results in a fall in demand for its currency by foreigners. At the same time, a greater demand for imports by the country leads to an increase in supply of the domestic currency to buy foreign currency to pay for its imports. The fall in demand for and increase in supply of the country's currency results in a surplus of the domestic currency, therefore causing it to depreciate against a foreign currency. As a result, this could increase the burden of servicing the external debt that arise s from the BOP deficit.

III. Conclusion

The persistent rise in general price level will certainly have adverse effects on the economy as it does not allow a country to attain its macroeconomics goals. The government must keep watch and implement appropriate policy to ensure there is no severe inflation.

Marking Scheme

Level	Marks	Descriptors
L3	7 – 10	• Answer displays clear understanding of how inflation affects both internal and external sectors • Recognition of short term and longer term impact
L2	5 – 6	• Answer shows understanding of how inflation results in a fall in AD and 2 macroeconomic indicators • Considers only internal or external effects on the economy
L1	1 – 4	• Smattering of points • Conceptual errors evident

Marker's Report

I. Question Interpretation

1. Question is NOT whether inflation is a cause for concern. Hence there is no need to explain the advantages that can arise from mild inflation

2. The object (or end point) of the question was "concerned". However there was no criteria stated (i.e. on economic goals) to address the detrimental effects of inflation on the economy.

3. Question is NOT on causes of inflation

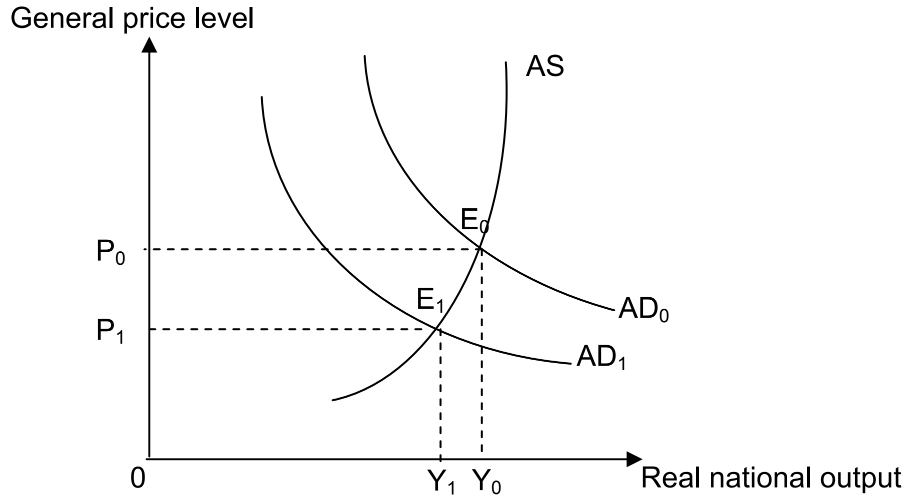
(b) Discuss whether raising interest rate is the most appropriate policy to deal with the problem of inflation. [15]

I. Introduction

- An unacceptable high rate of inflation brings about undesirable effects on the internal and external sector of an economy. Thus there is a need for a government to implement appropriate measures to bring down a high inflation.

II. Body

When the government reduces the money supply, the interest rates will go up. The higher interest rates will increase the cost of borrowing funds. This means that a rise in interest rates would reduce quantity demanded for funds for investment and consumption purposes significantly.



Together with a fall in C and I, AD falls from AD_0 to AD_1. The surplus would be eliminated when the general price level has fallen to P_1. Hence, inflation is reduced.

Evaluation
If the demand for investment is interest inelastic, then monetary policy would be less effective in reducing the rate of inflation. For example, if households are optimistic about the economy and their future incomes, they may not reduce their consumption despite the higher interest rates.

To fight inflation in a small and open economy like Singapore, the government allows the Singapore dollar to appreciate.

- The appreciation of the Singapore dollar has the direct effect of lowering the domestic currency prices of imported final goods and services consumed by the households. This immediately reduces the rate of inflation.
- The appreciation of the Singapore dollar can reduce the rate of inflation by affecting aggregate demand. When the Singapore dollar appreciates, its exports will be more expensive in foreign currency. The rise in export prices will lead to a fall in its quantity demanded by foreigners, ceteris paribus. At the same time, imports would be cheaper in domestic currency. Hence, the quantity demanded for imports will rise, ceteris paribus. Hence, aggregate demand will also fall and this will help to lower the inflation rate.

Evaluation
Although a strong Singapore dollar may be effective in maintaining a low rate of inflation, it also exerts a contractionary effect on real national output and hence, economic growth. This is because the strong Singapore dollar reduces aggregate demand, as explained earlier via a fall in net exports. Hence, policy makers must weigh the benefit of such a policy in terms of lowering the inflation rate against the cost of contraction of the real national output.

As Singapore lacks natural resources and is heavily dependent on international trade, price stability hinges on the quality of its human capital and reducing internal cost of production for firms so as to increase export competitiveness.

- Reduce tax rates, e.g. personal income tax and corporate tax to encourage work effort and investment respectively → rise in productive capacity → increase AS → ceteris paribus, fall in general price level → effective in maintaining low inflation

- Granting subsidies and establishing more training centres and courses to encourage education and training to increase labour productivity
- Giving tax incentives to firms and investment grants to encourage research and development in product development and production techniques

When the aggregate supply increases, there would be a downward pressure on prices until the surplus is eliminated. This decrease in general price level shows a fall in inflation.

Evaluation

- Supply-side policy is effective in keeping inflation in check and ensuring long term economic growth of the country. Reducing tax rates to encourage investments also has the effect of increasing employment and wages → ↑ standard of living

III. Conclusion

The impact of interest rates on the general price level depends on the nature of the economy and the causes of inflation. Singapore's lack of natural resources and its dependence on international trade imply that it is vulnerable to inflation from external sources such as imported inflation and inflation due to rise in export demand. As such, reducing the money supply and raising interest rates may not be the most appropriate policy in reducing inflation.

Marking Scheme

Level	Marks	Descriptors
L4	12 – 15	• Answer shows good knowledge of how price stability may be achieved with implementation of 3 appropriate policies • Expect a thorough knowledge of various aspects of relevant demand-management and supply-side policies with appropriate use of AD-AS model • Explained judgment on appropriateness of policies implemented to achieve price stability in an economy (e.g. S'pore context)
L3	9 – 11	• Answer shows good knowledge of how price stability may be achieved with implementation of at least 2 policies • Good evidence of ability to analyse effects of demand-management and supply-side policies using AD-AS model to achieve price stability • Some unexplained judgments pertaining to appropriateness of policies implemented to achieve price stability in an economy • Detailed discussion of policies to reduce AD to decrease inflation – max. 10m
L2	7 – 8	• Answer shows some knowledge of how price stability may be achieved with implementation of some policies • Lack of balance in demand-management and supply-side policies • Little or no consideration of limitation of policies to achieve price stability in an economy • Limited application to an economy
L1	1 – 6	• Answer shows little knowledge of how price stability may be achieved with implementation of some policies • Several errors and inconsistencies occur in the explanation, showing lack of understanding of the economic concepts • Lack of economic analysis and no application to any context

Marker's Report

I. Question Interpretation

1. Rationale for implementation of different types of policies is not stated.

2. No need to explain the causes of inflation eg how demand-pull inflation arises

3. A handful of students did not start policy implementation with contractionary monetary policy of raising interest rate. Instead, they wrongly started the body of the essay with contractionary fiscal policy.

4. For demand for investment being interest inelastic, should not explain in the context of recession and hence bleak outlook. Rather it should be explained in the context of inflation.