

Answer Key for PU3 PE2 CSQ1

a) (i)	Compare the changes in income inequality in Europe and the US from 1990 to 2010.	[2]
Marking Scheme	<ul style="list-style-type: none"> Income inequality rose for both Europe and USA from 1990 to 2010. [1] Income inequality rose faster in USA than in Europe. [1] 	
Markers' Comments		
(ii)	With reference to the data, account for the income disparity between the rich and the poor in the US.	[4]
Marking Scheme	<ul style="list-style-type: none"> A large proportion of household incomes are accounted for by the wages and salaries earned. Income disparity could thus be explained in terms of demand and supply for labour. The rich command high wages due to their possession of relatively highly demanded skills (e.g. people with specialised digital technology skills, and the super-managers cited by Pikety in Extract 1) and the relatively low supply of such skills in the labour markets. For example, there are about 20-25 per cent of such people in California working in the high-tech sector and they are the most wealthy there. On the other hand, the poor possess skills that are relatively much less demanded and relatively large in supply in the labour market. Their skills could only command jobs that pay them less than \$16 per hour, which is less than what is needed to support a family. The above two different markets of labour demand supply will thus have different equilibrium wages, with the highly skilled being much highly paid than the poor with their less demanded skills. Diagrams and brief explanation of the wage disparity in the two types of skills market. [4] <p>Alternative ways to score</p> <ul style="list-style-type: none"> There is thus labour immobility where the less skilled workers cannot easily move to fill the jobs of those employed in digital technologies. [2] The lack of homogeneity of labour can partly explain the differences in wages of people. Those "supermanagers" (Extract 1) with the talents, "high skills", and training in higher education earn much more than those with less talents, skills, and education find their earnings lagging behind. [2] The money that the rich make from their ownership of real assets greatly exceed the wages earned from the supply of labour of most other people whose incomes are derived mainly from this only source. [2] [Max of 4] 	

Markers' Comments		
b)	Using demand and supply analysis, explain reasons for a fall in the price of online goods and services.	[4]
Marking Scheme	<ul style="list-style-type: none"> The price of online goods and services is determined by supply and demand forces. The fall in the price of online goods and services might be due to a large increase in supply and/or fall in demand for such goods and services. In Extract 2, Amazon is credited for "relentlessly driving down prices of (online) goods and services ..." This is because it "ploughs its profits into price cuts and innovation ..." The profits are used to engage in innovation in the online goods and services industry will have the effect of greatly reducing the costs of production in the industry. This in turn increases the supply of goods and services. There are also many new start-ups in the industry that increase the supply of online goods and services (Extract 5). Meanwhile demand for online goods and services have also increased, due to increased globalisation and use of information technology in online trading of goods and services, as well as increases in income. However, this increase in demand is not as substantial, relative to the increase in the supply of online goods and services. The rightward shift (increase) in demand is less than the rightward shift (increase) in supply due to the fall in costs of production. Together they bring about a subsequent fall in the price of online goods and services. [3] Diagram with explanation to show the above analysis. [1] [Max of 4 marks] 	
Markers' Comments		
c)	With reference to the concept of price elasticity of demand and extract 4, explain the expected impact of a price fall on Amazon's total revenue from the sale of electronic readers.	[2]
Marking Scheme	<ul style="list-style-type: none"> Demand for Amazon's electronics is price elastic. There are many close substitutes for e-book readers such as Hudl tablet produced by Tesco and other e-book readers produced by John Lewis and Dixon. [1] When there is a fall in price, it leads to a more than proportionate increase in quantity demanded. Hence total revenue would increase. [1] 	
Markers'		

Comments		
d)	To what extent is Amazon a monopoly in the online retail industry.	[8]
Marking Scheme	Question Analysis: Two-sided discussion is required.	
	Yes, Amazon is a monopoly in the online retail industry.	No, Amazon is not a monopoly in the online retail industry.
	<ul style="list-style-type: none">High barriers to entry: Big firms have large profit accumulation and easier financing and are hence can buy up small rivals to become the only firm in the market OR predatory pricing by charging very low prices which are insufficient to cover their cost of production. This is done to increase their market share and deter rivals from entering the market [Extract 2:” we instead be praising the company and its ability to compete other firms out of the market” and “relentlessly drives down prices for goods and services”].Large market share: Amazon has close to two third of the market share for e-books.	<ul style="list-style-type: none">Number of sellers: Depending on the type of product sold, there are a few other large online retailers who are rivals, such as John Lewis and Dixons in the e-reader market and Asos in the apparel market [extract3 & 4].Pricing and Output Decision: Amazon charges low prices unlike a typical monopoly that would restrict output and increase price to increase total revenue [refer to extract 2]. This suggests that Amazon may face competition in the market due to the presence of other sellers that are selling close substitutes.Price competition: Dixons has promised to match the price of Amazon in the electronics retailing market and Amazon can no longer undercut rivals [extract 4]. This shows that there is price matching in the online electronics market. When one firm reduces price, the other firms would follow suit. PED is hence very inelastic below the original price level and very elastic above the original price level. Such behaviour give rise to the kinked demand curve, which is observed in a market with non-collusive oligopoly.

		<ul style="list-style-type: none">Barriers to entry: A low barrier to entry in the digital realm as it is easier to launch a new online product or service. There is no physical infrastructure required [extract 5].																
	<p>Conclusion: Amazon is not likely to be a monopoly in the online retail industry especially in the long run. It is more likely to be an oligopoly. Barrier to entry is only key factor which determines whether a firm is capable of maintaining its market power over time. With the lowering of barrier to entry, it is likely many new firms will entry the market. Even if Amazon maintains a large market share and remains as a monopoly, there is a constant threat of competition [theory of contestable market] and they would be forced to keep prices low. In other words, they cannot behave like a monopoly even if they fit the criteria to be considered as a monopoly.</p> <p>Moreover, Amazon is operating at low profit level, they may not be able to sustain large profit accumulation over time to buy up small rivals in the future.</p>																	
	<table><tr><td>L3</td><td>Well-developed two-sided explanation on whether Amazon is a monopoly or not, with good reference to evidence from the case.</td><td>5-6</td></tr><tr><td>L2</td><td>Two-sided explanation on whether Amazon is a monopoly or not, making good reference to evidence from the case. OR Well-developed one-sided explanation on whether Amazon is a monopoly or not, making good reference to evidence from the case. Max 3 for answers without reference to case materials.</td><td>3-4</td></tr><tr><td>L1</td><td>Explains the features of monopoly or oligopoly. Answer could be scanty, theoretical, superficial or descriptive.</td><td>1-2</td></tr><tr><td>E2</td><td>Stand with justification.</td><td>2</td></tr><tr><td>E1</td><td>Stand with weak justification.</td><td>1</td></tr></table>			L3	Well-developed two-sided explanation on whether Amazon is a monopoly or not, with good reference to evidence from the case.	5-6	L2	Two-sided explanation on whether Amazon is a monopoly or not, making good reference to evidence from the case. OR Well-developed one-sided explanation on whether Amazon is a monopoly or not, making good reference to evidence from the case. Max 3 for answers without reference to case materials.	3-4	L1	Explains the features of monopoly or oligopoly. Answer could be scanty, theoretical, superficial or descriptive.	1-2	E2	Stand with justification.	2	E1	Stand with weak justification.	1
L3	Well-developed two-sided explanation on whether Amazon is a monopoly or not, with good reference to evidence from the case.	5-6																
L2	Two-sided explanation on whether Amazon is a monopoly or not, making good reference to evidence from the case. OR Well-developed one-sided explanation on whether Amazon is a monopoly or not, making good reference to evidence from the case. Max 3 for answers without reference to case materials.	3-4																
L1	Explains the features of monopoly or oligopoly. Answer could be scanty, theoretical, superficial or descriptive.	1-2																
E2	Stand with justification.	2																
E1	Stand with weak justification.	1																
Markers' Comments																		
e)	With reference to the extracts, discuss the impact on producers and consumers with increasing competition in the online retail industry.		[10]															

<p>Marking Scheme</p>	<p>Assumption: All firms are profit maximising while all consumers wants to maximise their consumer surplus.</p> <p>With increasing competition, it means that the online retail industry have less market power to influence price and quantity. The firms should now behaviour more like monopolistic competition rather than oligopoly.</p> <p>Effect of increasing competition:</p> <p>With increasing competition, there should be more efficiency in the economy and results in lower prices of goods and services. Assuming online retailers were behaving as a collusive oligopoly, with increase competition and changing of market structure towards monopolistic competition will cause the fall in prices. (slope of AR & MR becomes gentler; price falls and quantity increases)</p> <p>Negative impact on producers:</p> <ul style="list-style-type: none"> Profits level are likely to be eroded since more competition. Producers will earn less supernormal profits. (Use diagram to illustrate) Evaluation: In the long run, earn only normal profits since they behave as monopolistic competition now. (Extract 5) The lack of the profits can reduce the ability for firms to engage in R&D. In the long run, there may be little/no improvement in the quality of the goods due to lack of R&D. Reduction in firm size will lower the scale of production and thus, reduce the ability for firms to enjoy IEOS. Firms will enjoy less cost savings and maybe experience a higher increase in cost of production, further eroding their profits. <p>Positive impact on consumers:</p> <ul style="list-style-type: none"> Price and quantity: With increasing competition, there will be a reduction in price of the online goods and services. Lower price will benefit consumers as now they are able to consumer more goods and services with the same given amount of income. There would also be an increase in consumer surplus and increase in the material standard of living of the consumers. Better quality of final products with the same amount of current resources since there is more competition. Producers would want to improve the quality of their goods and services so as to gain more consumers since it is harder to participate in price competition now. Evaluation: In the long run, greater variety of goods and services to choose from. (Extract 5) shows more variety of different online retailers. More substitutes of the same product available for consumers to choose from.) Improvement of non- material standard of living of consumers. More convenience for the consumers as producers compete to provide the best possible services (Extract 4 shows faster delivery of goods and services) <p>Negative impact on consumers:</p> <ul style="list-style-type: none"> Lack of IEOS results in higher cost and this increase in cost can be passed on
-----------------------	--

	<p>to consumers, therefore increase in price of goods and services. A rise in the price of goods and services can reduce consumer surplus and make consumers worse off.</p> <p>Conclusion</p> <p>The role of the government in the regulation of the online retail industry is important. The impact on producers and consumers will depend on the intervention of the government. Government should intervene when the consumer or the producer are experiencing too much negative impact.</p> <table border="1"> <thead> <tr> <th>Level</th><th>Mark</th><th>Descriptors</th></tr> </thead> <tbody> <tr> <td>L3</td><td>7 – 8</td><td> <ul style="list-style-type: none"> For answers that show a good understanding of the effects of an increased in competition on both producers and consumers Answers provide a good scope and depth with good understanding of the varying effects </td></tr> <tr> <td>L2</td><td>4 – 6</td><td> <ul style="list-style-type: none"> For answers that show the effects of an increased in competition on either consumers or producers For answers that shows unelaborated effects of increased competition on producers and consumers </td></tr> <tr> <td>L1</td><td>1 – 3</td><td> <ul style="list-style-type: none"> For an answer that is mostly irrelevant Contains only a few valid points made incidentally in an irrelevant context For answers that shows little knowledge on the effects of increased in competition </td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Level</th><th>Mark</th><th>Descriptors</th></tr> </thead> <tbody> <tr> <td>E1</td><td>1 – 2</td><td> <ul style="list-style-type: none"> For a explained judgment on the effects of more competition on producers and consumers </td></tr> </tbody> </table>	Level	Mark	Descriptors	L3	7 – 8	<ul style="list-style-type: none"> For answers that show a good understanding of the effects of an increased in competition on both producers and consumers Answers provide a good scope and depth with good understanding of the varying effects 	L2	4 – 6	<ul style="list-style-type: none"> For answers that show the effects of an increased in competition on either consumers or producers For answers that shows unelaborated effects of increased competition on producers and consumers 	L1	1 – 3	<ul style="list-style-type: none"> For an answer that is mostly irrelevant Contains only a few valid points made incidentally in an irrelevant context For answers that shows little knowledge on the effects of increased in competition 	Level	Mark	Descriptors	E1	1 – 2	<ul style="list-style-type: none"> For a explained judgment on the effects of more competition on producers and consumers 	
Level	Mark	Descriptors																		
L3	7 – 8	<ul style="list-style-type: none"> For answers that show a good understanding of the effects of an increased in competition on both producers and consumers Answers provide a good scope and depth with good understanding of the varying effects 																		
L2	4 – 6	<ul style="list-style-type: none"> For answers that show the effects of an increased in competition on either consumers or producers For answers that shows unelaborated effects of increased competition on producers and consumers 																		
L1	1 – 3	<ul style="list-style-type: none"> For an answer that is mostly irrelevant Contains only a few valid points made incidentally in an irrelevant context For answers that shows little knowledge on the effects of increased in competition 																		
Level	Mark	Descriptors																		
E1	1 – 2	<ul style="list-style-type: none"> For a explained judgment on the effects of more competition on producers and consumers 																		
Markers' Comments																				

Case Study 2

Suggested Answer Plan

- (a) (i) Describe the trend in the merchandise exports of the selected countries inferred from Table 1. [2]

- *Exports were increasing at a decreasing rate after 2009 global recession. [1]*
- *The slow down further deteriorated/worsened with a fall in exports in 2015. [1]*

Marking guide:

Students who merely read off from Table 1 and described the % change in exports – max 1 mark

Markers' Comments:

- Many used the 'compare' technique to highlight a similarity and difference (across countries ie 'over space'), which is **not showing the ability to identify trend (over time)**
- Note such **wrong expression** 'exports went from surplus to deficit'. The term 'surplus'/'deficit' is used for those concepts involving 'difference'. So we can say trade (X-M) or budget (T-G) surplus/deficit, but exports increase/decrease!
- **Errors in interpreting percentages:** Many misinterpreted the fall in percentages (%) in Table 1 as fall in exports revenue (\$)! Quite a number simply take the highest % to mean highest value in X! Do not merely know how to calculate % without knowing the meaning and implication (correction: fall in % means \$X rising slowly, only -% means \$X falling! While highest % means \$X is rising very fast or fastest, if \$X is rising very fast, \$X has not reached the highest in value yet?!)

- (a) (ii) Explain how the changes in merchandise exports affect the selected countries' balance of trade (BOT) and exchange rate in 2015. [2]

In 2015:

- $\downarrow X$, *ceteris paribus*, BOT worsens (note: depends on the balance at the start when countries could have surplus for SG/Germany/China or deficit for US). [1]
- $\downarrow X$, $DDx \downarrow$, $DD_{currency} \downarrow$ *ceteris paribus*, $ER \downarrow$ [1]

Markers' Comments:

- **Inaccurate description for BOT:** BOT worsens \neq BOT deficit. The country's BOT may start off with a large surplus, so fall in X does not immediately means that BOT is in deficit! (could be a large surplus becoming a smaller surplus)
- **Gaps in explaining** $\downarrow ER$

- (b) (i) With reference to Figure 2, compare the economic growth rates of the developing countries with the advanced countries from 2000 to 2015. [2]

- *Similarity – all follow similar trends (when advanced countries enjoyed growth, so would the developing countries) [1]*
- *Difference – developing countries' growth rates are constantly higher than advanced countries' growth rates. [1]*

Markers' Comments:

(b) (ii) Explain 2 possible reasons for the observations made in b(i). [4]

- *Similarity – all countries are integrated with (trade &) globalisation, so we tend to see similar changes in growth rates ie when advanced countries enjoyed +ve growth, they tend to import more from developing countries (ie X for developing countries rises) that spur growth in the latter. Eg, if country A enjoys economic growth, she might buy more imports from country B. This means country B's export revenue would increase, ceteris paribus; stimulating country B's AD to rise, and hence achieving economic growth. [growth in cty A, $NY_A \uparrow \uparrow$, $M_A \uparrow = X_B \uparrow$, $AD_B \uparrow$, $NY_B \uparrow \uparrow$ ie growth in cty B too]*
- *Difference – advanced countries are operating near full employment, so growth rates tend to be lower than developing countries which are, in general, below full employment. Hence developing countries are capable of achieving higher growth rates.*

Marking guide:

- each reason carries 2m

Markers' Comments:

(c) (i) Explain what is meant by the term 'stagnation'. [2]

- *(According to Extract 7 – last line of first paragraph) Stagnation refers to zero or low positive growth rates (as opposed to negative growth or recession). [1]*
- *In other words, AD is rising very slowly, slower than the expected targeted growth rates set by the authorities (governments, central banks, IMF) [1]*

Markers' Comments:

(c) (ii) Discuss whether the investors' pessimism is more likely a cause or consequence of stagnation. [8]

- *Thesis: investors' pessimism is a cause of stagnation*
According to Extract 7,

- *Investors’ pessimistic outlook for the future results in their (investors) reluctance to invest, making investment (I in AD component) weak. As AD is not rising (fast) adequately, the slow growth could not achieve the targeted expected growth that the govt set earlier.*
- *(With pessimism) Investors’ are not providing adequate loanable funds to (pte sector) firms to encourage (pte) investment to increase, so AD is not rising satisfactorily. (Elaborate that as supply of loanable funds falls, i/r \uparrow ceteris paribus, then cost of borrowing could exceed the investment return to make investment less profitable, so investment is low)*
- *Anti-thesis: investors’ pessimism may be a consequence of stagnation*
 - *When growth rate turns out to be lower than expected/targeted growth rate, many economic agents (be it households, firms, govt) would perceive such below-expected economic performance as a sign of stagnation and/or even heading towards a recession (if the poor economic performance persists).*
 - *This (stagnation) could make investors develop a pessimistic outlook for the future.*
- *Conclusion: a ‘vicious’ cycle where the above effects seem to reinforce each other. The question is what cause(s) investors’ confidence to be shaken (or pessimism) – the stagnation and/or other events (eg geopolitical risks mentioned in Extract 8 such as regional political, military or trade disputes) Data does not provide enough evidence to conclude on the causality.*

L3 [5 – 6]	A balanced, detailed and in-depth discussion, providing elaboration with relevant economic concepts on the arguments put forth.
L2 [3 – 4]	A detailed but lop-sided discussion or a balance discussion with missing details.
L1 [1 – 2]	A response that shows candidate has not fully understood the question’s requirement but making attempts to propose irrelevant arguments that may coincidentally satisfy some aspects of the question’s requirement
E [1 – 2]	[2] – A reasoned judgement [1] – an unexplained judgement

Markers’ Comments:

(d) Assess the economic policies a government could adopt to address stagnation. [10]

- *Thesis: economic policies to address stagnation*
 - *Extract 6 → IMF proposed expansionary MP & FP, especially expansionary FP with SS-side effect (public infrastructure investment). IMF also added that for developing economies, govt can also consider SS-side policy (structural reforms)*
 - *Expansionary MP, $\downarrow i/r$, cost of borrowing \downarrow , ceteris paribus, $C \& I \uparrow$, $AD \uparrow$, $NY \uparrow\uparrow$ (via k) such that the growth can achieve or exceed expected growth rate*
 - *Expansionary FP with SS-side effect, govt spending (G on infrastructure) \uparrow , $AD \uparrow$ (SR) + $AS \uparrow$ (LR), achieve both actual (SR) & potential (LR) growth ie sustainable growth can be pursued*
 - *For developing economies, SS-side policy through structural reforms (eg tax reforms, reduce unemployment benefits to improve work incentive or reduce bureaucracy to improve efficiency) can shift LRAS to the right to achieve potential growth.*
 - *The use of expansionary FP is reiterated again in Extract 7 (expansionary FP with SS-side effect through infrastructure investment).*
- *Anti-thesis: limitations of policies and counter-argument*
 - *Limitations of policies*
 - *With pessimism (and liquidity trap), expansionary MP may not effectively stimulate AD to rise significantly*
 - *the usual theoretical limitation of small k may be considered in assessing the effectiveness of the fiscal & monetary policies, but may not be significant for the case of EU & US as they generally have relatively smaller withdrawals.*
 - *SS-side effects (or SS-side policy) may have long time lag, so govts may face pressure to implement short-term measures to ease/cushion the negative effects from stagnation.*
 - *In Extract 6, IMF added that for emerging economies, those countries which rely heavily on exports as their main source of growth would face 'external vulnerabilities' ie external shocks which are beyond the control of authorities (govt & central banks), hence the effectiveness of the recommended macro policies may be limited.*
 - *(Extract 7) The concern by some govts on austerity may make them reluctant to $\uparrow G$ (for fear of running persistent budget deficits which may develop into debt problem), even though the govt expenditure on infrastructure have +ve LR(AS) effect. With G restricted (and even possibly $\uparrow T$ in the austerity package), AD cannot rise significantly to address the stagnation problem.*
 - *From Extract 8, the 'insufficient policy stimulus' could have made the actual growth rates fall below the expected target. This reinforces the policy limitations mentioned above.*
 - *Counter-argument*
 - *(Extracts 6 & 8) if the low investment is mainly due to 'geopolitical*

risks', the economic policies (MP, FP, SS-side policy) may not address this root cause and hence be ineffective in addressing the stagnation.

- **Conclusion:**
 - *Depends on the root cause of the stagnation (which can affect the effectiveness of the policy prescribed)*
 - *But many a times, causality may not be clearly established as there are many events arising concurrently. Hence, considering the possible govt failure to estimate accurately and implementing the policies in a timely manner, yet there is an urgent need to respond promptly, a prudent/conservative govt tends to implement a combination of policies. Hence we see most govts in the west adopting expansionary MP (via QE) and contractionary FP (austerity), ie taking a short-term approach given the urgency. Yet in the above extracts, the more appropriate option seems to be expansionary FP with SS-side effect to address the stagnation (ie taking a long-term stand).*

L3 [7 – 8]	A balance, detailed and in-depth discussion, providing elaboration with relevant economic concepts on the arguments put forth.
L2 [4 – 6]	A detailed but lop-sided discussion or a balance discussion with missing details.
L1 [1 – 3]	A response that shows candidate has not fully understood the question's requirement but making attempts to propose irrelevant arguments that may coincidentally satisfy some aspects of the question's requirement
E [1 – 2]	[2] – A reasoned judgement [1] – an unexplained judgement

Markers' Comments:

[Total: 30]

Essay Question 1

In 2011, the Brazilian government set price caps for gasoline. Most cars in Brazil can run on either gasoline or ethanol. Economic growth in Brazil has averaged just 1.3% over the past four years and price cap can help citizens keep cost of living low, especially in terms of public transport expenses.

Discuss the impact of the abovementioned event on on the market of gasoline and other related market in Brazil. [25]

Answer Outline

Question analysis

Discuss: answer requires evaluation

Impact: Focusses on the impact on equilibrium price and quantity

Abovementioned event:

Gasoline and ethanol are substitutes for drivers since most cars can run on either fuel.

Price cap on gasoline means that is a price ceiling for gasoline which sets price below the equilibrium price to keep prices low for consumers.

Cars and gasoline are complements

Low economic growth could suggest that the demand for luxury good such as cars could be rising very slowly.

Market for gasoline: Price cap would keep the selling price of gasoline below equilibrium. Market does not clear and there is a risk of black market formation. Demand may increase due to low but positive economic growth.

Related markets: Cars, ethanol, transport services

Context: Brazil

Introduction

Explain the keywords in the question as explained above under *Question Analysis*

Body

Market for Gasoline

Point:

- Price ceiling affects the market outcome for the gasoline market.

Explanation/example:

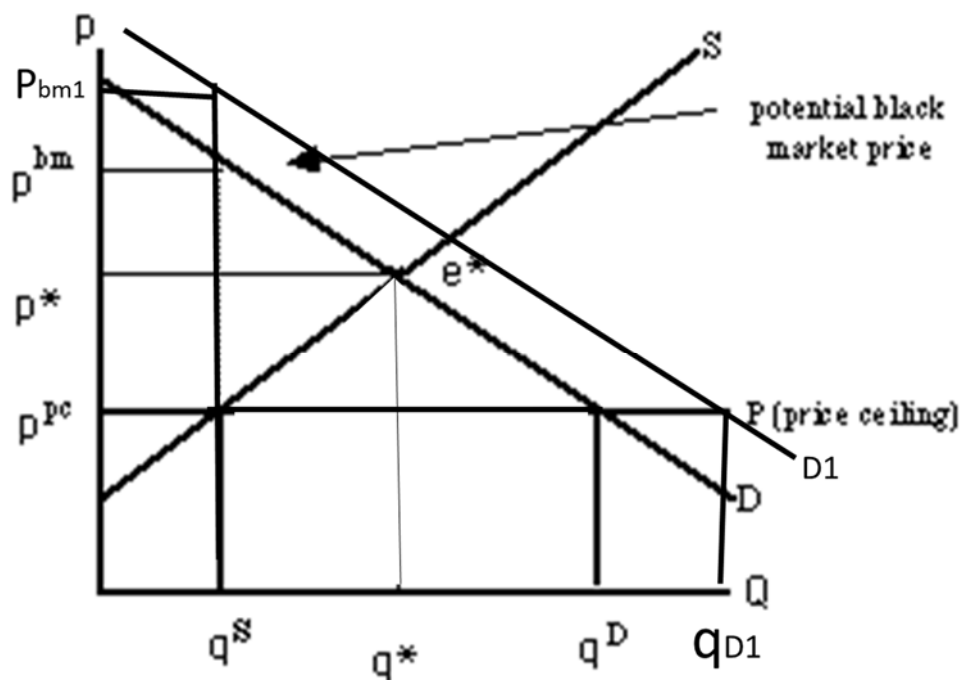
- Price ceiling is a government imposed price control to keep prices below the equilibrium price of P^* .
- The intention is to keep prices low at $P(pc)$ and keep gasoline a necessity affordable to the low income households.

- Producers are worse off since they have to charge a lower price
- With the imposition of the price ceiling, the market does not clear since quantity demand would be more than quantity supplied.
- The quantity consumed will be equal to the quantity supplied.
- There is a shortage of $Q_d - Q_s$ in the market.

Link: Price ceiling causes the price to fall and the quantity consumed to fall in the gasoline market.

Evaluation:

- Black market may arise as producers are aware that consumers are willing to pay up till P_{bm} when the quantity is Q_s .
- If there is a black market due to poor government policing, the price P_{bm} will be higher than the equilibrium price of P^* .
- If the D is inelastic, the P_{bm} will be much higher than if the D is elastic. In this case, the D for gasoline is likely to be elastic for car drivers since gasoline and ethanol are close substitutes.
- If the S is elastic, when price falls due to the price ceiling, it would lead to a more than proportionate fall in quantity supplied and hence the shortage of gasoline will be greater. S is likely to be elastic for gasoline since gasoline is durable and can be stored.



Point:

- Slow economic growth affects the market outcome for the gasoline market.

Explanation/example:

- Gasoline is a necessity needed to run vehicles needed for transportation.
- The income elasticity of demand for gasoline tends to be low and positive.

- When the income increases slightly, the demand for gasoline would rise less than proportionate.
- Overall the demand for gasoline is likely to increase slightly to D_1 .
- The shortage increases to $Q_{d1} - Q_s$.
- If black market forms, the price in the black market would be even higher at P_{bm1} .
- Quantity consumed does not change.

Link: Slow economic growth increased the shortage in the market for the gasoline.

Evaluation:

- If the government provides subsidy to gasoline sellers to encourage them to increase supply, they may be able to clear the market while maintaining a low price.

Market for Cars

Point: Price cap for gasoline and slow economic growth would affect the market for cars/

Explanation/Example:

- Cars and gasoline are complements. Gasoline is needed to run a car.
- The XED value is negative. When the price of gasoline falls due to the price cap, the demand for cars will increase.
- Cars are considered a necessity for transportation in a country like Brazil where public transport network may not be extensive in rural areas.
- YED value is positive but small.
- Overall the increase in demand is great because it is reinforced by two factors.
- This leads to a shortage and an upward pressure on the price of cars.
- Price would increase from P_0 to P_1 and equilibrium quantity would increase from Q_0 to Q_1 .

Link: The abovementioned events would cause the market price and equilibrium quantity of cars to increase.

Evaluation:

- PES for cars is likely to be inelastic in the short run and elastic in the long run. In the short run, it is not possible to increase the quantity supplied quickly overnight when price increases because cars require complicate manufacturing process and there may not be spare capacity in the assembly plants.
- Therefore there is likely to be a more than proportionate increase in price (price hike) relative to the increase in quantity.
- In the long run, PES is likely to be elastic since firms can expand production capacity or import cars from other countries when price increases.
- Therefore there is likely to be a less than proportionate increase in price (small increase in price) relative to the increase in quantity.
- However, since the price cap leads to a shortage of gasoline, this may limit the growth in demand for cars since consumers are unable to purchase the gasoline needed to run the cars.

- Also, if a black market were to exist, the price of gasoline may increase instead and this could lead to a fall in demand for cars.
- Slow economic growth may also cause consumer pessimism and demand for big purchase items like cars may fall.

Market for Ethanol

Point: The price cap for gasoline and the slow economic growth can affect the market for ethanol.

Explanation/Example:

- Ethanol and gasoline are close substitutes since most vehicles can run on either ethanol or gasoline.
- XED value is positive and large. When the price of gasoline falls due to the price cap, the demand for ethanol would fall sharply as consumers switch to the cheaper gasoline to run their vehicles.
- This reinforces the fall in demand due to the slow rise in income.
- This leads to a surplus and a downward pressure on the price of cars.
- Price would fall from P_0 to P_1 and equilibrium quantity would fall from Q_0 to Q_1 .

Link: The price cap for gasoline and the slow economic growth can cause the equilibrium price and quantity of ethanol to fall.

Evaluation:

- There may be other factors affecting the market for ethanol. For e.g. if the price of sugar cane for consumption increases, profitability increases and producers may prefer to produce sugar cane for consumption instead of using them for ethanol production. Hence there may be a fall in the supply of ethanol.
- It depends on the PES for ethanol. S is likely to be elastic since ethanol can be stored for a long period of them due to durability of stock. When the price of ethanol falls (sharp drop in price), the quantity supplied would fall by a greater proportion relative to the quantity supplied.

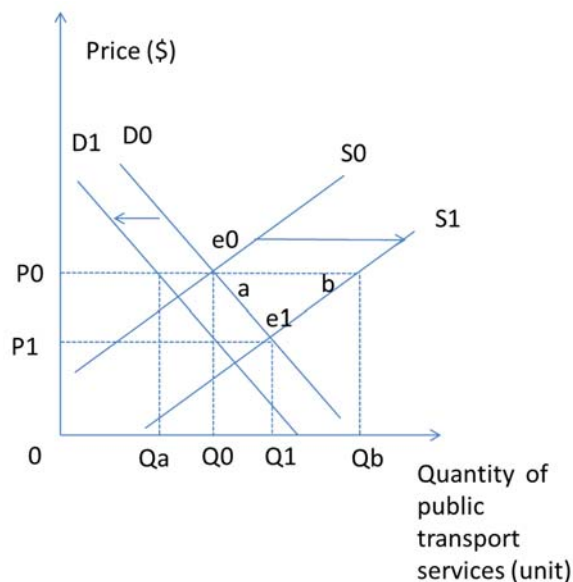
Market for Transport Services

Point: The price cap on gasoline and the slow economic growth can affect the market for transport services.

Explanation/Example:

- Gasoline is an input for the provision of public transport service since gasoline is needed to run buses.
- Reduction in gasoline price would lead to lower cost of production and higher profitability for transport firms.
- The supply of public transport service would increase.
- At the same time the slow economic growth could lead to a small fall in the demand for public transport services since public transport may be an inferior good (YED negative).

- Gasoline is a major factor of production to run buses and hence the increase in supply is likely to be great whereas the fall in demand is likely to be small since the increase in income is very small.
- There is a surplus in the market and this leads to a downward pressure on price.
- Equilibrium price falls and quantity increases.
- PED for public transport is likely to be inelastic since public transport may be largely used by the lower income group and they are unable to afford the much more expensive substitutes for cars. Hence there is a lack of close substitutes. This is likely to result in a larger than proportionate fall in price of public transport relative to the increase in quantity when the supply increases.
- PES for public transport is likely to be inelastic since it takes time to increase their supply of bus services as new buses may need to be purchased and drivers need to be trained. This is likely to result in a larger than proportionate fall in price relative to the fall in quantity when demand falls.
- Because PED and PES are inelastic, price fall is sharp.



Link: The abovementioned event causes a sharp fall in the equilibrium price of public transport services and an overall increase in equilibrium quantity.

Evaluation:

- Similarly, the lower cost of production holds true only if there is no formation of black market and public transport providers are able to purchase the cheaper gasoline despite the shortage.
- Ceteris paribus condition may not hold. E.g. PES may be elastic in rural areas (where bus frequencies tend to be lower). There is availability of spare capability to provide more bus services.

Conclusion:

- The impact of the events on the different markets depends largely on the relationship between gasoline and the other products and price elasticity concepts.
- Price cap on gasoline may not be sustainable if the gasoline producers face high cost of production and are unable to cover their COP when prices are low.
- The government needs to be wary of this potential problem as it could lead to a fall in supply and worsen the shortage if the gasoline firms shut down in the LR.
- In view of the recent development that the oil prices are falling due to the increased production of shale oil and output in OPEC countries, the price cap may no longer be effective when the market price falls below the maximum price set by the government. This can allow the market for gasoline to achieve low prices while clearing the shortage in the market without government intervention.

Knowledge, Application, Understanding, Analysis		
L3	<p><i>Sound analysis with good use of economics framework</i></p> <ul style="list-style-type: none"> - <i>DD/SS → price mechanism</i> - <i>Concepts of YES/XED/PED/PES to aid explanation</i> <p><i>Good scope of discussion</i></p> <ul style="list-style-type: none"> - <i>At least 3 related markets are discussed</i> - <i>Simultaneous shift analysis is included with explanation on which curve shifts more.w</i> <p><i>Good depth of analysis</i></p> <ul style="list-style-type: none"> - <i>Linkages made between each point</i> <p><i>Good application to the context</i></p>	17 – 21
L2	<p><i>Use of economics framework, e.g. demand and supply analysis with some elasticity concepts.</i></p> <p><i>Lack of scope of discussion, e.g. at most 2 markets are analysed</i></p> <p><i>Lack of depth of elaboration</i></p> <p><i>Lack application to the context</i></p>	10 - 16
L1	<p><i>Glaring conceptual errors made.</i></p> <p><i>Limited use of economics framework.</i></p> <p><i>Limited scope of discussion, e.g. only demand and supply analysis is applied without elasticity concepts OR only one market is discussed.</i></p>	1 – 9
Evaluation		
E1	<i>Made a judgment on the overall outcome of each market but not substantiated with analysis</i>	1 - 2
E2	<i>Made a judgement on the overall outcome of each market based on sound analyses</i>	3 - 4

Essay Question 2

Price of jet fuel has fallen 70 per cent in past two years, yet average cost of a transatlantic airline ticket cut by just two per cent over same period.

(a) Explain how firms would determine price and output for their products in the markets.

[10]

(b) Discuss whether marketing is more important than pricing policies for the airline industry.

[15]

Suggested answer scheme

(a) Introduction

- A firm is defined as the unit that employs factors of production to produce commodities that it sells to other firms, households or the government.
- Firms are assumed to maximize their profits, which are the difference between total revenue (TR) and total costs (TC) of production.

Body

Para 1

- There are two rules that any firm should follow if it is to produce the output that results in maximum profits.
- **Rule 1. The shut-down rule**
- First, firms should only produce output if TR is equal to, or greater than TVC.
- If there is no output for which TR is equal to or greater than TC, then output should be zero.
- This is called the shut-down rule, because it shows when a firm that is currently producing should stop doing so.
- The reason for this is that the firm's variable cost can be avoided by ceasing production.

Para 2

- Because different costs are avoidable in the short and the long runs, this rule has 2 applications, one for the short run, and the other for the long run. It is important to distinguish between the two of them.
- **Shut down condition in the short run**
- The short run (SR) is the time period in which at least one factor is fixed, such as plant and equipment, and thus cannot be increased.
- Inputs that can be varied in the short run are variable factors such as labour.
- When a firm decides whether or not to continue production in the SR, it looks at its short run variable costs (SRVC) and is unrelated to its fixed costs (FC), which are unavoidable since they have to be incurred even if the firm does not produce at all.

Para 3

- The firm should not produce at all if for all levels of output the TVC of producing that output exceeds the TR derived from selling it (or if $AVC > AVR$).
- If the firm cannot earn enough revenue to cover the variable costs of production, then the most profitable course would be to shut down for that time period.
- The price at which the firm can just cover its AVC and is therefore indifferent between producing and not producing is called the **shut-down price**.

Para 4

- **Shut-down condition in the long run**
- The long run (LR) is the time period in which all factors can be varied within the confines of given technology. All factors are variable.
- The profit-maximising firm will continue production and stay in business in the LR only if it can cover its total costs.
- Covering SR variable costs is not sufficient. If this is not possible, the firm should close down in the LR.

- **Para 5**

- **The rule for the best output for the firm to produce**

- The second rule is that if a firm should produce at all, the output at which profits are maximised is where marginal cost (MC) is equal to marginal revenue (MR).
- Suppose a firm finds that at its present level of output, the cost of making another unit (MC) is less than the revenue gained by selling it (MR).
- Total profit could therefore increase by producing this marginal unit.
- The opposite case is also true: the firm should not produce the additional unit if $MC > MR$.
- The profit-maximising output level is therefore, where $MC = MR$

- **Para 6**

- In the case of firms in perfect competition where there are a large number of buyers and sellers and each firm, being an insignificant player in the market, is thus a price taker, the profit maximization level of output for the firm is where $MC = MR$, with MC rising from below and the firm charges a price P_e as determined by the market forces of demand and supply.

- **Para 7**

- In the case of a monopoly firm which also derives its profit maximising price and output positions by $MC = MR$, the firm sets a price P much higher than its MC, thus being allocative inefficient.

- **Para 8**

- In the case of oligopolies in which a few large firms dominate the market and are characterised by mutual interdependence, the kinked demand curve is one such market model. Prices are rigid where the profit-maximising level ($MC = MR$) is and firms do not try to match any increase in price but will match any price reduction exercised by their rivals.

- **Para 9**

- **Conclusion**

- In conclusion, although it is generally true that firms follow the rules as set out above in their output and price decisions, they might also be influenced by other factors such as sales revenue maximisation, profit satisficing, and the principal-agent problem. Thus, in the last situation when ownership and control of the firm are separated, the self-interest of agents will tend to make price and output decisions that result in profits lower than which principals act as their own agents.

Knowledge, Application, understanding and Analysis		
L3	Clear and well developed explanation of how firms determine the price and output that includes the main goal of firms, the shut-down	8 – 10

	rule in the SR and LR, the profit-maximising condition, and brief mention of the other goals of firms and the various market structures.	
L2	Developed explanation which shows understanding of how firms determine the price and output decisions of firms including shut-down rule but without the profit-maximising condition [7] Less developed explanation which shows understanding of profit maximisation condition but excluding the shut-down rule [6] Some understanding of how firms determine price and output decisions with less developed explanation. [5]	5 – 7
L1	An answer which shows some knowledge of the decision making process of the firms in price and output.	1 - 4

(b) Discuss whether marketing is more important than pricing policies for the airline industry.
[15]

Introduction

- Like all firms in economic theory, the aim of firms in the airline industry is assumed to maximise profit.
- In order to do so, the firm must reduce its total cost of producing the service and increase TR from sales of its service.
- Alternatively, the profit maximization rule where $MC = MR$ applies to the firm in the airline industry.

Body

Para 1

- The airline industry is likely to be an oligopoly and is dominated by a few large firms because of high barriers to entry.
- This is because the business requires huge capital investments such as its fleet of aircraft.
- For such a market structure, non-pricing strategies such as marketing and promotion is arguably more effective than price strategies to increase profits.

Para 2

- This is because the airlines may want to avoid price competition and a price war as explained by the kinked demand theory.
- This theory arises from interdependence among the few firms in the airline industry, for example in Singapore firms such as Jetstar, Tiger Airways, Scoot, SilkAir and Singapore Airlines.

- This means that firms watch out for the actions of their rivals and react accordingly. Hence, a fall in price of airfare for Jetstar will only increase quantity demanded for its services by a smaller extent and cause a fall in its total revenue.
- This is because the gain in total revenue from the smaller percentage rise in quantity demanded is unable to offset the loss in revenue from the greater fall in price.
- Assuming total cost remaining unchanged, such pricing changes where the kink occurs will only cause total profits to fall.

Para 3

- Hence in order to compete successfully, an airline can affect demand positively by increasing air travellers' willingness to go on board their planes through marketing strategies such as through promotions and advertising programmes that aim to differentiate and distinguish their services.
- For example, in order to attract more customers, the airline might advertise aggressively and provide attractive on-board amenities such as dining, entertainment, books and magazines, wireless streaming of blockbuster hits and chart topping music to their personal laptops.
- It can also plan for family holiday specials.
- Its marketing strategies can also aim to reach more customers through e.g. fairs, internet booking, etc.

Para 4

- Hence if the airline's efforts at marketing are successful, the demand for its flights at the same price will rise.
- Moreover, if the marketing brings about brand loyalty, the demand for its services will also become more price inelastic.
- Hence marketing programmes to promote the business in place of pricing strategies could be a more important strategy to be undertaken by the airline industry.
- Increasing demand and making its demand more price inelastic through marketing and promotion might be a better strategy to sustain its growth in the long run.

Para 5

- Although the theory of oligopolistic behaviour suggests an avoidance of pricing strategy, as long as the firm is able to reduce price due to e.g. new and cheaper technology or cost of aircraft per passenger in operating the airline business, the firm should do so to increase sales revenue if PED for her service is greater than unity.
- However, if marketing makes the firm's airline services more distinctive and differentiated from its rivals', and if its $PED < 1$, then it might consider raising its price in order to increase sales revenue and profits.

Para 6

- However, assuming a kinked demand curve, if the oligopolistic airline firm's condition is such that its MC rises beyond the vertical 'discontinuity' section of the MR curve, then its price may need to be changed accordingly.

- In the case of airline collusion, pricing strategies in the form of price leadership might occur. This is when one firm becomes the market leader and other firms in the airline industry follow its pricing example. However, collusive agreements are usually illegal.

Conclusion

- In conclusion, marketing programmes to promote the airline business in place of pricing strategies might be necessary to sustain its growth of in the long run. In addition, if oligopolistic behaviour suggests an avoidance of pricing strategy, as long as the firm is able to reduce price due to e.g. new and cheaper technology in operating the airline business, the firm in reality should do so to increase sales revenue. Hence, although it is true that marketing strategies are important, it may not be necessarily be more important than pricing strategies.
- Airlines should not depend on only one strategy but use both marketing and pricing strategies effectively to raise the profits of its business. As a final note the preamble hints that some collusion might be taking place in the airline industry. The challenge is really to have some public policy to keep airlines competing rather than colluding and using their competitive energies to improve their services and to lower costs rather than spending excessively on their marketing efforts.

Knowledge, Application, understanding and Analysis		
L3	Well-developed and balanced discussion on the arguments of marketing strategies in contrast to pricing policies for the airline industry, that includes points such as promotions and advertising and improvements in services provided and making demand for services more price inelastic, interdependence and the kinked demand curve which yield the solution of sticky prices,	9 - 11
L2	Less developed and balanced discussion that shows some ability to put forth the case for marketing as opposed to pricing policies for the airline industry.	5 - 8
L1	An answer which shows some knowledge of the arguments between marketing and pricing in the airline industry.	1 - 4

Allow up to 4 additional marks for Evaluation		
E2	For an evaluative discussion that is based on economic analysis i.e. one that considers that although marketing strategies are important it might not necessarily be more important than pricing strategies - with evaluative reasoning.	3 - 4
E1	Weak explanation of judgement put forth.	1 - 2

Essay Question 3

The Liquor Control Act, which was passed in Parliament in January 2015, aims to minimise public disorder and disamenities arising from drinking in public. Under the Act, drinking is banned from all public places from 10:30pm to 7am and retail shops are not allowed to sell takeaway alcohol.

- Explain why Singapore regulates drinking in public areas. [10]
- Assess whether The Liquor Control Act is the best policy in regulating drinking in public areas. [15]

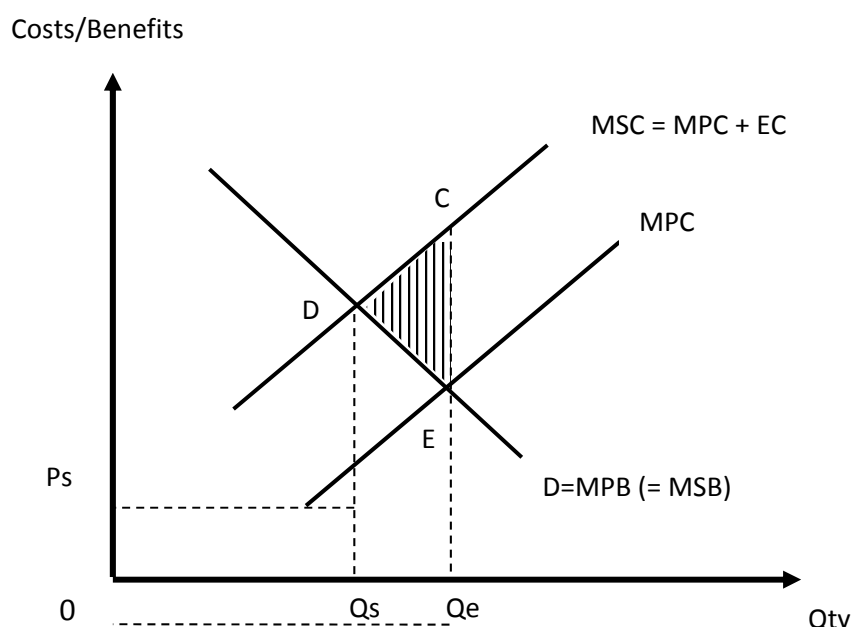
Suggested Answer (a)

Market failure: Negative externality & imperfect information

Negative externalities refer to the external costs imposed on someone other than the consumers or producers of the product, for which no compensation occurs. (*i.e. harmful effect on 3rd parties*). Individual decision makers are not internalising all the costs that society is bearing.

Thus, when negative externality is generated during an economic activity, the **marginal social costs are higher than the marginal private costs**.

The private benefit enjoyed by the individual consuming the alcohol is the satisfaction from consumption while the private cost could be the cost of purchasing the alcohol. However, during the consumption process, **negative externality** is generated as the bad behaviour alcohol consumers exhibits after consumption as well as the noise pollution. This negative externality causes a divergence between MSC and MPC as illustrated in the figure below:



In the figure above, the demand curve, D, reflects the MPB of the consumer from the consumption of an additional unit of alcohol while the MPC which is the additional cost of consuming an additional unit of alcohol. The individual consumer will only consider the private costs and benefits,

ignoring the negative externalities and will produce up to the point where **MPB = MPC** (private efficiency). As such, **Qe** is being produced.

However, the external cost generated from the consumption of alcohol creates a divergence between MPC and MSC, i.e. MSC is higher than MPC. On the other hand, since there is no external benefit incurred, $MSB = MPB = D$. As such, at market equilibrium output, Q_e , **MSC is greater than MSB**, meaning that the society values an extra unit of good less than what it would cost the society to produce it.

The **socially efficient level of output** should be where $MSC = MSB$, ie. at output **Qs**. At market equilibrium P_e , the good is under- priced as the true price should be at P_s . Therefore, the price mechanism **over-allocates** resources to the production of the good since $Q_e > Q_s$, that is, there is an over-production of the good. Area ECD represents the **welfare/deadweight loss** to society as a result of this over-allocation of resources. Therefore, the market fails to allocate resources efficiently because it does not take into account the external cost and market failure arises.

Consumers also do not perceive correctly how bad a particular product is for them: either they do not have the right information or they simply lack some relevant information. Individual consumers tend to be myopic and are assumed to be short-term utility maximisers. They may not be fully informed about the long-term harm of consuming alcohol. The characteristic of alcohol is that the consumer is believed by the authorities to undervalue the harm it provides. Consumers tend to under-estimate the private cost of consuming it. The drinker may not be fully aware of the health risks of consuming alcohol and hence over-consumes alcohol.

Knowledge, Application, understanding and Analysis		
L3	Clear and well developed explanation of both market failures with appropriate examples.	8 – 10
L2	Developed explanation which shows understanding of at least one of the two market failures without examples. [7] Less developed explanation which shows understanding of market failure. [6] Some understanding of negative externalities with some errors. [5]	5 – 7
L1	An answer which shows some knowledge of market failure with inaccuracies in explanation.	1 - 4

Suggested Answer (b)

Assess whether The Liquor Control Act is the best policy in regulating drinking in public areas. [15]

Government regulation is the process of controlling production or consumption activities through laws and administrative rules. In the case of **negative externalities**, laws like The Liquor Control Act, can be used to prohibit or regulate behaviour that imposes the external costs. Public consumption of liquor is prohibited from 10:30pm to 7am and all retail shops are prohibited from selling alcohol.

Thesis: Regulation is the best policy.

Government has more perfect knowledge and therefore can produce at the social optimal level. The regulation ensures that there is certainty in the outcome and the maximum amount of negative externality generated is controlled under the regulation.

In comparison, it is also relatively easier to understand, implement and monitor when The Liquor Control Act is imposed. Random checks or checks based on public complaints can be made and public who found to have flouted the regulation will be heavily fined. Huge fines can be imposed to deter individuals from flouting the regulation imposed.

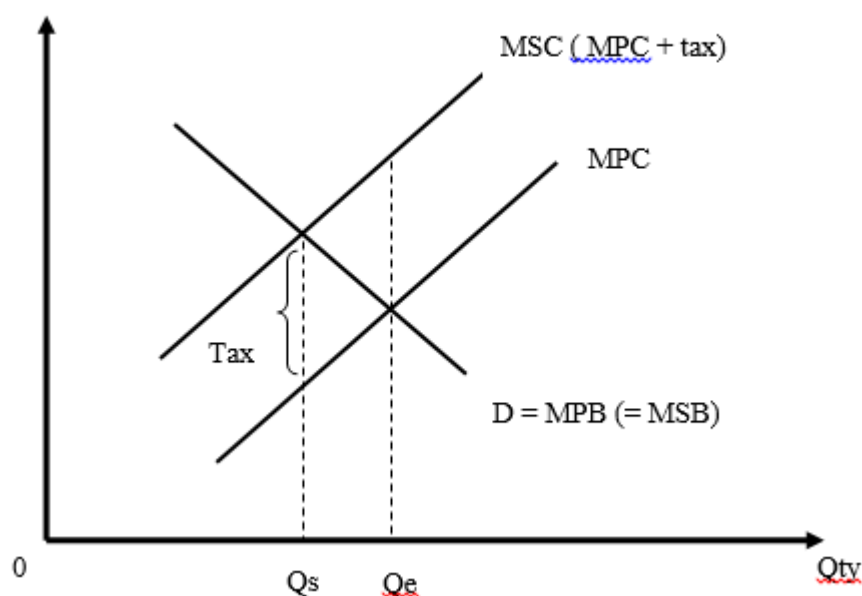
Anti- thesis: Regulation is not the best policy because there can be other better policies. At the same time, government may fail.

However, it is understandable that regulation may not be the best policy since it is a blunt tool and it does not pinpoint on punishing only those who contribute to generating the negative externalities for the consumption of alcohol. In addition, frequent checks are required to ensure that the regulation is being followed. This can incur additional policing and inspecting cost to the government. Government may also fail to estimate accurately the social optimal level of output and thus, too may still allow the public to consume too much alcohol, leading to negative externalities.

Other policies might yield better results in attempting to correct the negative externalities generated from consumption of alcohol. In Singapore, other policies like the Liquor Tax and educating the public about the harms of long- term consumption of alcohol is being adopted.

In budget 2014, liquor tax was raised by 25% of the existing rate. The existing liquor tax ranges from \$60-\$88 per litre of alcohol. The taxation imposed should be equal to the external cost from the consumption of alcohol. The market equilibrium (where $MPC = MPB$) will give a quantity Q_e which is higher than the socially efficient level Q_s (where $MSC = MSB$). The market does not take into consideration the external costs involved.

Costs/benefits



The government can impose a **tax equal to the marginal external cost**. This is the monetary valuation of the harm imposed on society due to the negative externality. By doing so, government

attempts to compel the polluting firm to **internalize the external costs**. This raises the drinker's marginal private cost (i.e. cost of production will increase) and the supply curve will shift to the left to S' (MPC raised to the same level as the MSC). Hence, consumers will be induced to consume less and move towards the socially efficient level Q_s . At this equilibrium, $MSB=MSC$. The over-allocation of resources is corrected as there will not be over-consumption. This eliminates the deadweight loss, arising from over-consumption prior to the imposition of the tax. Allocative efficiency is achieved.

However, it is noticeable that the external cost generated from the consumption of alcohol might be hard to estimate. Inaccurate estimation can lead to under/ over- correction of the market failure. This might worsen the existing situation.

The Health Promotion Board has been actively engaging Singaporeans in educating them the long-term harms of consuming alcohol excessively. Such measures allow the external cost from the consumption of alcohol to be made known to the individuals. It is hoped that, as a result, demand for alcohol would be discouraged. The demand curve will shift leftwards, lowering the equilibrium output to bring it into correspondence with the optimal output. Since these campaigns are not enforceable by law, the advice might not be heeded due to ingrained habits and excessive drinking may continue to exist as a problem in the society. It is also noted that time is needed for one to change their behaviour and thus, the impact of educating the public might take effect gradually. These activities can be funded using the liquor tax revenue generated.

Government may consider to use a combination of these above mentioned policies since each policy has its pro and con. Having a combination of policy will allow the government to possibly achieve the best outcome when attempting to tackle the negative externality generated from consumption of alcohol.

Knowledge, Application, understanding and Analysis		
L3	Well-developed and balanced discussion on various policies which can be used to resolve the issue of overconsumption of alcohol. Policies mentioned are well contextualised to Singapore and are appropriate.	9 - 11
L2	Less developed and balanced discussion that shows some understanding of the different policies which can be used to correct negative externalities and imperfect information.	5 - 8
L1	An answer which shows some knowledge of the policies to correct the above mentioned market failures.	1 - 4

Allow up to 4 additional marks for Evaluation		
E2	For an evaluative discussion that is based on economic analysis i.e. one that considers that although marketing strategies are important it might not necessarily be more important than pricing strategies - with evaluative reasoning.	3 - 4

E1	Weak explanation of judgement put forth.	1 - 2
-----------	--	--------------

EQ4(a) Explain the limitations of expansionary interest rate policy to help alleviate the problem of falling aggregate demand (10).

Intro:

Brief explanation of how expansionary interest rate policy is supposed to increase AD.

Development:

Limitations to consider

- 1) Other determinants which may affect consumption and investments

Demand for consumption and/or investment may be interest inelastic. Lower interest rates may be insufficient to encourage consumers and firms to take up loans particularly when consumer and business sentiments are poor with the rise of global economic crisis in 2010. The increase in consumption and Investment may not be significant enough to cause AD to rise significantly and hence the problems of output gap may still persist.

- 2) Effects of deflation on real interest rate and investment (context of Japan)

With the problem of deflation that persists in Japan, there could be the problem of a rise in real interest rates. This situation will lead to an unintended negative impact on both households and firms. Households in Japan will still prefer to save than spend and hence consumption will continue to fall. At the same time, falling prices will make it difficult for firms to predict returns and make debts harder to pay off thus cutting back on their investment spending. Overall, deflation will only worsen the problem of falling AD in Japan.

- 3) Small multiplier effect

In countries where leakages (withdrawals) – savings, taxes and imports – are high, the multiplier effect is weak, rendering the monetary policy less effective. Hence AD might not rise significantly to resolve the problems of falling AD. In the context of Japan where there is high savings rate, size of multiplier effect will be small, hence it may not fully alleviate the problem of a falling AD.

- 4) Inability to cut interest rate (context of Japan)

Interest rates in Japan is already at low levels and near to zero, hence the ability for further cuts will be difficult. Once nominal interest rate is reduced to zero, there is no room for further rate cuts.

Level	Descriptors	Marks
L3	<p>A <u>well-developed</u> analysis of the impact of expansionary monetary policy and its effectiveness with reference to the given context (of Japan)</p> <p>High L3: Well-elaborated explanation on internal impacts, external impacts and evaluation of Monetary Policy.</p> <p>Low L3: Answer is well-developed with some attempts at evaluation of policy.</p>	7-10
L2	<p>High L2: (6 marks)</p> <p>Well- developed answers considering both internal and external impacts</p> <p>Low L2: (5 marks)</p> <p>Well- developed answers on only internal or external impact of changes in interest rate (capped at 5 marks)</p>	5-6
L1	Mere listing of the effects of a change in the interest rate or exchange on the components of AD.	1-4

EQ4(b) Discuss if the government should prioritise tackling deflation over reducing a budget deficit. (15m)

Intro:

Explain what deflation and budget deficit is.

Development:

Thesis – Government should prioritise tackling deflation

Analyse the negative impacts of deflation:

Deflation results in a vicious cycle of decreased spending and increased unemployment. People wait as prices fall, for goods to get cheaper before buying. (Consumption expenditure falls and Savings increase). In addition there will be reduction in investment spending because businesses lose confidence in the economy and invest less as prices of their goods and services fall, and profit margins are reduced. There'll be fall in C → fall in I → fall in AD → EG falls and the vicious cycle carries on with falling C → falling I (Paradox of Thrift).

Deflation results in a rise in real debt burden: Deflation will cause debt burdens to rise for households that have borrowed in the past. Many consumer and corporate debts are fixed, including fixed mortgages and personal loans, and repayments do not fall as prices fall, making the real price of the debt rise. For firms, falling prices also create a debt burden because, although revenues fall, debt repayments may remain at the old level, increasing the real debt burden.

In addition, deflation may cause foreign investors to shun away from investing in the country, due to lower prospects of increase in profit margin. Hence there will be net outward investment – leading to worsening capital and financial account. Assuming ceteris paribus, this may cause Balance of Payment to worsen.

Explain how fiscal budget deficit may not be harmful if it is temporary in nature – due to cyclical factors:

Fiscal Deficit has beneficial effects as the government could be trying to stimulate the economy by increasing G spending to stimulate the economy and reduces tax collection to encourage greater consumption and investment by households and firms respectively.

This is done through reducing income tax leading to higher disposable income - to higher purchasing power for households – Higher consumption from households. In addition, a fall in corporate tax will lead to a higher profit margins and hence leading to higher investment expenditure by firms

On the other hand, the government continues to spend on its people by increasing its social security spending, incurring higher spending on unemployment benefits.

This results in a rise in G and fall in T rise of AD (explain via inventories, production, output and income) and hence real national income, output and employment via the multiplier effect.

Anti Thesis – Government should prioritise reducing a budget deficit.

Explain how fiscal budget deficit is harmful to the economy due to the cost of financing the debt.

If Budget Deficit is large and persistent/chronic and become unsustainable in the Long Run Cost of financing the huge fiscal debt (excess overspending of government). The government of Japan would have to consider the costs of financing an expansionary fiscal policy.

Assuming the government spends beyond its means, this could worsen the fiscal position and the government could incur a budget deficit. The government of Japan has been borrowing at ¥44 trillion (\$468 billion) and it is forecasted to exceed tax revenues. It also means that the gross debt-to-GDP ratio, already the highest in the rich world at 190%, will continue to rise. Countries such as Greece and Italy in the Euro Zone also faced serious budget deficit. For example, the Greek government aims to cut the debt from 160% of GDP

to a little over 120% of GDP by 2020. Italy's public debt rose to around 1.9 trillion euros (approximately 120% of GDP) at the end of 2011. A persistent and large structural budget deficit has serious repercussions on the economy.

The nature of the problem depends on the source of borrowing:

1) Internal borrowing

Theoretically, the increased G borrowing may lead to crowding out effect where private investment may fall as the government competes with private investors for the limited funds in the financial institutions. The rise in demand for the limited funds may in turn lead to increase in interest rate as the borrowing from the government bid up the 'price' of borrowing. This raises the cost of borrowing and further reduce investment and consumption as profit margins is lower for firms and purchases on credit is more expensive for households respectively. Evaluate: the problem of crowding out effect may not be that relevant in the context of Japan, since interest rates are still relatively low in Japan.

2) External borrowing from other countries with strings attached.

Furthermore, strings may be attached to such loans i.e. there may be political obligations to the donors and the country thus, loses a certain amount of sovereignty. This led to the problem of debt servicing.

In addition, the government may also need to offer higher interest rates to obtain loans from lenders (countries/ banks/investors) as they could be less willing to lend due to fear of default. This will only lead to further increasing debt on the government. Evaluate: However, this may not be significant in the context of Japan as government does not rely on external borrowing.

Analyse the problems of increasing debt:

Increasing debt on the government may place a burden on the society in terms of debt servicing. The country has to increase taxes in the future. Hence, the future generations will not enjoy as high a standard of living as they should. There is a tradeoff with future spending on needed development expenditure such as physical infrastructure, healthcare and education. For example, in Spain, government implemented fiscal austerity measures in 2011 to reduce the Spain's public debt which was estimated to be 63.4 percent of GDP in 2010. As a result, the increase in tax has seen widespread protests by the youths who anticipate jobless future and lower standard of living.

A large and persistent national debt affects consumers and investors' confidence in the ability of the government to repay its debt and perpetuates the risk of sovereign debt default. If the sovereign state does defaults on its payment, this could lead to massive loss of confidence in the economy, thereby leading to fall in C and I thus leading to falling AD and falling EG and rising unemployment. Hence the current priority of EU countries such as Greece and Spain appears to be focused on the resolving the structural budget deficit and the contraction of the economy rather than deflation. Hence deflation is less of a concern to such EU countries at the moment.

Consequently, the rise in government debt may cause a reduction in the investor's confidence. This will lead to adverse effect on both Short Term capital movements (hot money) and Long Term investment.

With the fall in the net inward investment, this leads to fall in Aggregate Demand, assuming other determinants of AD remain constant and economy is operating at the Intermediate range, there will be a multiple fall in real national income, output and employment - leading to contractionary effect on the economy. In addition, capital and financial account will worsen → BOP will worsen.

Conclusion:

Stand: Clearly both deflation and unsustainable fiscal deficit have dire consequences.

But if a choice needs to be made as to which problem is more important, it depends on the severity of the respective problem & priority of government at the point in time.

Judging criteria: To consider the extent or severity of the impact of deflation and fiscal budget deficit on the key economic agents.

Deflation will affect economic agents more severely both at present and in the future. Falling prices make consumers even more reluctant to spend, because any purchase is likely to be cheaper in the future. Deflation depresses investment by corporations because falling prices make it difficult to predict returns and make debts harder to pay off. With falling I and C, income falls and will also cause or aggravate the problem of fiscal budget deficits for government.

When the economy is facing with deflation, which stems from a fall in Aggregate Demand, high unemployment will surface. The amount of direct tax revenue is then reduced, leading to a fall in tax revenue for the government. On the other hand, unemployment and welfare benefits tend to rise leading to rise in G. Both the rise in G and the fall in tax revenue due to the inbuilt automatic stabilizers will lead to a worsening budget balance. Less government budget or funds will then be less available for government, which could be used for spending on public services by the government. Hence deflation could actually worsen the state of the fiscal deficit and hence a government may still need to be more concerned with deflation.

In the context of Japan: Japan could view deflation as a more immediate threat whereas budget deficit may not pose serious short term problem for Japan as it has accumulated enough savings (through government bonds yield). However, the government of Japan may need to take other precautionary measures as the threat of the aging population may mean higher public health spending for the nation which could pose further future debt problems for the government of Japan in the future.

In the context of EU countries like Spain, the severe structural budget deficit will prove to be crippling to the economy with the significant increase in the rate of unemployment (As of February 2011, unemployment in Spain still hovers around 20 percent of the labour force)

and the rise of widespread strikes and protests. For EU, the priority of the government should therefore focus on reducing its budget deficit.

Level	Descriptors	Marks
L3	<p>A <u>balanced and well-structured response</u> containing <u>well-developed</u> analysis of how deflation/budget deficit may be a greater cause of concern different impacts i.e. negative impacts of deflation and budget deficit.</p> <p>Able to compare the extent of the problems & provide illustrative examples.</p>	9-11
L2	<p>A <u>balanced response</u> containing <u>theoretical</u> analysis of effects (negative impacts) of deflation and/or fiscal deficit but with NO linking words on how it is/is not a cause of concern (cap at 6 marks)</p> <p>Little/minimum impact to compare the extent of the problems.</p>	6-8
L1	<p>Mere listing of points</p> <p>A <u>one-sided answer</u>, considering only the impacts of deflation or fiscal deficit. Answer contains errors and inaccuracies.</p>	1-5

E2	<p>Reasoned judgment with reference to the context. Able to identify and <u>explain judging criteria</u> in explaining whether deflation or fiscal deficit should be a cause of concern.</p> <p>AND</p> <p>Able to <u>make a stand with justification</u></p>	3-4
E1	Mainly unexplained evaluation	1-2

EQ5) Discuss the impact of the weakening of a currency and low productivity on different economies. (25m)

Impacts of a weakening currency (external and internal)

Improvement of BOP

BOP improves as domestic good and services will become relatively cheaper. Assuming the Marshall – Lerner condition holds, this will lead to an increase in net exports (NX), improving BOP through the current account. Furthermore, a weakening of the currency will reduce the costs of investing in terms of foreign currency, leading to an increase in inward foreign direct investments, improving the BOP through the capital account.

Economic Growth

This increase in net exports also represents an injection into the circular flow of income, resulting in a multiple expansion of domestic employment, output and income, through the multiplier effect. Most economies are likely to meet the Marshall - Lerner condition as demand for exports is likely to be price elastic due to competition from other countries.

Comparison between different economies (USA vs SG)

Different countries would experience relatively different levels of growth, depending on the size of their multiplier. For an economy like SG's, an increase in NX will have a limited effect on economic growth, due to SG's small multiplier.

With her compulsory savings system (CPF) and culture of thrift, along with her high dependence on imports, this implies that she has a relatively high level of MPS and MPM, resulting in a small multiplier value. A weakening of the currency would probably have a smaller impact on SG's economic growth as compared to another economy like the USA.

A weakening of the currency may even have a contractionary effect on SG's economic growth if her export products become less price competitive globally due to a higher cost of production, brought about by higher imported cost. During times of normalcy, it is possible that a weakening of currency may hurt SG's export competitiveness more than that of US due to higher threat of inflation, and hence greater negative impact on SG's national income than on US.

USA, being the top destination for FDIs will likely to benefit more than SG from a weakening of the currency as well. With even more FDIs entering the country, the US economy will experience an even greater increase in employment and economic growth as compared to many other economies, including SG.

This however, may not be true if the economy is already near full employment. A further increase in AD will lead to demand pull inflation, which may reduce investors' confidence within the economy instead.

Impacts of low productivity (external and internal)

Worsening of BOP

Cost of production will be higher as more input is required to produce the same amount output as before. Exports will be less price competitive due to an increase in cost of production. An increase in price would lead to a more than proportionate decrease in quantity demanded, resulting to a fall in NX, worsening BOP through the current account. Low productivity will also make an economy less attractive to foreign direct investments, leading to an increase in outward flow of investments, worsening the BOP through the capital account.

Demand – deficient unemployment

A reduction in NX and I will lead to a fall in AD, increasing levels of unemployment through the reverse multiplier process. Firms also cannot afford wage increases, leading to depressed income tax receipts for the government, indirectly contracting the economy even further.

Growth

Low productivity restricts sustained economic growth as a lack of increase in productivity would limit the rate at which productive capacity increases (assuming there are other factors causing productive capacity to increase). As such, AS would shift right slowly and that acts as a constraint on the rate of sustained economic growth.

Comparison between different economies (UK vs SG)

Singapore, being a small and open economy will be very reliant on trade for growth. Being export driven, Singapore's exports has to be price competitive globally to ensure economic growth. Furthermore, due to her lack of natural resources, Singapore imports almost all her materials for production. A low productivity rate, coupled with a weakening currency (more expensive now to import materials for production) would mean that SG's level of exports will be significantly affected due to an increase in cost of production. With SG's trade making up 326% of her GDP, a drop in export levels will lead to reduction in AD, ceteris paribus. An increase in unemployment level through the reverse multiplier would hence result.

For UK, a low level of productivity will present a different set of problems altogether. With a low reliance on trade, UK's economic growth is driven by domestic consumption. With low levels real wages, there would be lower levels of consumer spending, contracting UK's economic growth significantly, and increasing levels of unemployment as well.

This unemployment problem may even be exacerbated if foreign firms decide to outsource their production to countries where cost of production is lower. With globalisation, the movement of labour from one country to another is made even easier, where production processes can be monitored remotely through advanced levels of technology. This will result in structural unemployment, giving rise to a greater number of UK citizens unemployed.

For both countries, a low level of productivity would imply a low level of output. This would reduce the SOL of the citizens as there are now less goods or services made available for consumption.

Low levels of productivity will also reduce economies' potential economic growth levels. Which economies will be affected more will be dependent on which economies remain more attractive to FDIs despite the low productivity levels.

Other factors may also lead to differing impacts on economies. For example, if a country like China, is one of the few main exporters of rare metals, the demand for her rare metal will be considered price inelastic globally. A weakening of the currency would do them more harm than good as this would mean lower revenue earned from their export sales of rare metal.

The extent of the severity of problems due to low productivity would also depend on which economies have better policies in place to mitigate the problems or even raise productivity directly. Developed economies may be in a better position than developing economies to implement restructuring of the economy, to mitigate problems of low productivity.

At the same time, slower growth in productivity would likely result in slower growth in aggregate demand, which might offset some of the upward pressure on inflation, especially if economies are already operating near the full level of employment. Growth in consumer spending would probably weaken as lower business profits limit stock market gains, thereby reducing household wealth. More foresighted consumers might also reduce spending, perceiving that the prospects for growth in real wages are not as bright.

In summary, weakening of a currency and low levels of productivity would have differing impacts on different economies. All these would be dependent on the different characteristics of the various economies.

Level	Descriptors	Marks
L3	For an answer that has a thorough analysis of how a weakening of the currency and low productivity affects different kinds of economies. Answer is also able to compare the extent of the problems for different kinds of economies.	17-21
L2	Undeveloped answer that explains the impacts of a weakening of currency and low productivity. If analysis is developed but no/minimal comparison is made between different economies, max 12 marks.	10-16
L1	For an answer that shows superficial analysis on how a weakening of currency and low productivity affects an economy. Conceptual errors are evident.	1-9

E2	Evaluation justified based on analysis.	3-4
E1	For an unjustified evaluation	1-2

EQ6) Protectionism is more desirable than globalisation. Discuss. (25m)

Intro:

- Define protectionism and globalisation
- Instruments used to protect (tariffs, quotas etc)

Development:

Protectionism is desirable

- Protect local and infant industries (For both DCs and LDCs)
- Protect against damaging and unfair practises
- Protect to correct BOP deficit
- Protect to diversify, strategic industries

Protectionism is more beneficial than globalisation

- Negative effects of globalisation
- Rising competition → need to protect workers
- Curb volatility of AD and economic growth

Globalisation is desirable

- Positive effects
- Increase in NX and material SOL
- Macro effects on economy (SR → AD increases, national income increase via multiplier, LR → AS increases through higher productivity capacity)

Conflicts –

- 1) ER appreciates
- 2) DD pull inflation

Disadvantages of protectionism

- High cost of protectionism
- Ineffective, trade wars, retaliation, beggar – thy – neighbour effect

Conclusion:

Depends on nature of economy, why and when protectionism is needed. SR may be possible but not LR.

Knowledge, Application, Understanding and Analysis		
Level	Descriptor	Marks
High L3	For a well-developed answer that explain the 2 theses and anti-theses in a very detailed manner, with application to appropriate real-life examples for a comprehensive analysis and to support the choice of argument in a more compelling manner.	19 – 21
Low L3	For a well-developed answer (i.e. either 2 theses & 1 anti-thesis <u>or</u> 1 thesis & 2 anti-theses) that uses appropriate real-life examples for a comprehensive analysis and to support the choice of argument in a more compelling manner.	15 - 18
High L2	For an underdeveloped answer that uses appropriate real-life examples to analyse and to support the choice of argument in a rather compelling manner. <u>OR</u> For an underdeveloped answer that provides 1 thesis and 1 anti-thesis (lack of scope) but is still able to provide appropriate real-world examples to support the choice of argument in a rather compelling manner.	11 - 14
Low L2	For an answer that provides two-sided answers but is underdeveloped for either the thesis or the anti-thesis [Max 10m] For an answer that provides a one-sided answer (i.e. protectionism is better than globalisation <u>or</u> globalisation is better than protectionism)	8 - 10
L1	Mere listing of theoretical knowledge of the positive and negative impacts of globalisation or protectionism, but with some conceptual errors displayed.	1 – 7
Evaluation		
E2	Well-presented and evaluative conclusion that answers that acknowledges which is more desirable, and recognises at the same time that there are both benefits and costs for protectionism and globalisation, though the latter is the more inevitable scenario. Could propose other longer-term policies/ initiatives to reduce / minimize the costs of globalisation since the latter is more inevitable and the	3 – 4

	scenario that most countries embrace. → extend/ extrapolate to the future	
E1	Brief or vague conclusion that contains unjustified evaluations, recognising that there are costs and benefits without stating a stand (i.e. which is <u>more</u> desirable?)	1 - 2