

<b>Name:</b>		<b>Index Number:</b>		<b>Class:</b>	
--------------	--	----------------------	--	---------------	--



# DUNMAN HIGH SCHOOL

## Preliminary Examination

### Year 6

Economics

9732/2

Paper 2 Essay Questions

**14 September 2015**

**2 hours 15 minutes**

Additional Materials:

Writing Papers

### READ THESE INSTRUCTIONS FIRST

Write your name and Civics Class in the spaces provided on the answer paper.

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

Write your answers on the separate writing paper provided.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

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

At the end of the examination, fasten all your work securely into three separate bundles, one for each question.

Please indicate all questions attempted in the boxes below.

Section A			Section B		
Q1	Q2	Q3	Q4	Q5	Q6

This document consists of **3** printed pages including this cover page.

**[Turn over**

Answer **three** questions in total.

### **Section A**

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

1. The US economy has reported economic growth and falling unemployment. Weather conditions have improved in Texas, the top US producing state of cotton. Meanwhile, more consumers have opted for synthetic fibre apparel over cotton apparel due to increased quality and comfort of synthetic fibres.

Using economic analysis, discuss the effects of these events on the U.S. cotton market and its related markets. [25]

2. The increase in foreign worker levy by the Singapore government has led to higher unit labour cost.

(a) Explain how the above measure could affect the survival of firms in different market structures. [10]

(b) Discuss whether firms in the real world set prices at profit-maximising level. [15]

3. With reference to examples, discuss whether there is a need to change the current policies adopted by the Singapore government to achieve efficiency. [25]

## Section B

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

4. Balance of payments serves to highlight a country's competitive strengths and weaknesses.

Assess the extent to which an improvement in the living standards of an economy requires that achieving a healthy balance of payments be the top economic priority. [25]

5. UK is in battle over stagflation. Growth has slowed due to its austerity measures and the European debt crisis, while unemployment and oil prices have risen. Economists consider stagflation particularly tough to battle.

(a) Explain the key causes of stagflation in UK. [10]

(b) Discuss the most appropriate policy that a government could adopt when confronted with stagflation. [15]

6. Trade protection hurts the economy of the country that imposes it.

(a) Explain how a country could impose trade protection to reduce its imports. [8]

(b) Discuss the extent that you agree with the above view. [17]

# SUGGESTED ANSWER

## Question 1

The US economy has reported economic growth and falling unemployment. Weather conditions have improved in Texas, the top US producing state of cotton. Meanwhile, more consumers have opted for synthetic fibre apparel over cotton apparel due to increased quality and comfort of synthetic fibres.

Using economic analysis, discuss the effects of these events on the U.S. cotton market and its related markets. [25]

### Question Interpretation

Three events highlighted:

1. Rising income
2. Improvement in weather
3. Switch from cotton apparel to synthetic apparel

Students need to demonstrate a clear understanding of the impact on the price and output of at least three markets:

1. Cotton market
2. Cotton apparel market
3. Synthetic fibre market
4. Synthetic apparel market

Economic concepts assessed:

1. Determinants of demand and supply for goods and services
2. Determination of equilibrium market prices
3. Applications of demand and supply analysis to various markets
4. Concept of price elasticity of demand/supply, income elasticity of demand

Student should be able to:

1. Identify the main influences on demand and supply
2. Apply knowledge of basic model of demand and supply to various markets
3. Understand the significance of demand and supply factors in influencing the price and quantities traded
4. Explain elasticity concepts and its applications  
e.g. an understanding of how elasticities will affect the extent of increase in price and output of respective markets

Student should use the following analytical framework:

1. Price adjustment process

## **Suggested Approach**

### **Part 1: US cotton market**

**[Explain]** Improved weather conditions in Texas, increase in quantity supplied at each price, increase in supply, rightward shift of supply curve.

**[Illustrate]** Draw demand-supply curves to show that given different PED, the extent of change in price and quantity is different.

**[Outcome]** Cotton market sees a larger increase in output and smaller fall in price if demand is price elastic rather than price inelastic.

**[Explain]** Economic growth and increased employment leads to increased household income and increased purchasing power. Assuming that cotton is a normal good, there will be an increase in demand for cotton.

**[Illustrate]** Draw demand-supply curves to show that given different PES, the extent of change in price and quantity is different.

**[Outcome]** Cotton market sees a larger increase in output and smaller increase in price if supply is price elastic than if supply is price inelastic.

**[Explain]** Consumers start to switch to synthetic apparel from cotton apparel. Since cotton is a raw material (factor input) to production of cotton apparel, the fall in purchase of cotton apparel will lead to a fall in the quantity of cotton required to produce the apparel. This will lead to less quantity demanded of cotton at each price, thus the demand will fall.

**[Outcome]** There will be a fall in demand for cotton; however there is a corresponding increase in demand due to increased income. The net effect has to be explained and this requires judgment.

**[Evaluation]** The direction of change is dependent on how much household income has increased and how much of taste and preference has changed in favour of synthetic apparel. Cotton is used to produce items other than apparel, such as bedsheets, stuffing in furniture and components of plastics and insulation, so the increase in demand when income increases can be significant in comparison to fall in demand from people switching over to purchase synthetic apparel. Income elasticity for demand is larger than one. On the overall, demand for cotton could still increase.

**[Analysis]** Assume that the demand for cotton increases, the combined effect from increase in both demand and supply will lead to increase in output. The new equilibrium price is however ambiguous.

**[Illustrate]** The combined effects from both demand and supply changes based on the expected value of PED and PES and the expected extent of shifts.

**[Evaluation]** PES is low due to cotton being agricultural product + increase in supply likely significant due to Texas being largest producer in US.

PED is low due to importance as a factor input to the final goods produced + shift in demand is significant.

Make a reasonable judgment on whether demand shifts more than supply or vice versa.

**[Outcome + Evaluation]** Both PES and PED of cotton less than one, but  $PES < PED$ ; demand increases more than increase in supply; the outcome is that new equilibrium quantity will increase and significant increase in price. (Show market adjustment process)

### **Part 2: Cotton apparel market**

**[Explain]** Increase in demand for cotton apparel due to economic growth since cotton apparel is a normal good. Demand for cotton apparel is likely to be price elastic due to the large availability of substitutes available.

**[Explain]** Decrease in demand for cotton apparel due to consumers switching to synthetic apparel. The net effect on demand depends on the strength of opposing effect.

**[Evaluation]** It is likely that the improved quality of synthetic fibres may have encouraged consumers to switch over to synthetic apparel, as it has features such as minimal creasing or quick dry. The overall effect on demand could be a fall.

**[Explain]** Cheaper cotton due to good weather conditions will increase the supply of cotton apparel as it reduces the cost of production. The extent of increase in supply will depend on the proportion of cost of cotton to the entire cost of producing cotton apparel. The supply is likely to be price elastic because cotton apparel is a manufactured good and it can be stored.

**[Outcome + Illustration + Evaluation]** The price of cotton apparel will definitely fall but the new equilibrium quantity will depend on the extent of fall in demand and rise in supply. If demand falls more than the increase in supply, the new equilibrium quantity will fall. If supply increases more than the fall in demand, the new equilibrium quantity will increase. It is likely that the demand falls more than increase in supply as falling cost of cotton may not be a significant part of production cost for cotton apparel (to consider other aspects such as logistics, wages, rental etc.).

### Part 3: Synthetic apparel market

**[Explain]** The switch from cotton apparel to synthetic apparel will mean increase in demand for synthetic apparel. In addition, economic growth will reinforce the increase in demand as purchasing power of households increase and more synthetic fibre is demanded at each price due to it being a normal good.

**[Illustrate]** Given the increase in demand, the supply is assumed unchanged. Show on diagram the result of an increase in demand and the outcome on different PES.

**[Outcome + Evaluation]** The extent of increase in price and quantity depends on the PES of synthetic apparel. The PES is likely to be more than one as synthetic fibre is a manufactured good where its production can be easily adjusted in response to price change. Since  $PES > 1$ , there will be a more significant increase in quantity as compared to the proportion of increase in price.

### Mark Scheme:

Level	Descriptors	Marks
L3	Analysis should include application of elasticities with links to effects on the price and output of respective markets. Combined effects of events on P and Q. All three markets must be considered.	15 – 21
L2	Only two markets, including cotton market are considered. Analysis is incomplete and there is limited use of elasticity concepts. Considers simultaneous shifts that are not well developed.	10 – 14
L1	Smatter of points and unable to consider the effects of events found in preamble on cotton market and its related markets meaningfully. Analyses only one market. Single shifts in each diagram and failed to combine the effects together. Sees each event as independent shifts.	1 – 9
<b>Evaluation</b>		
E2	Able to make judgment on extent of shifts and the relevance of elasticity concepts with well-reasoned arguments.	3 – 4
E1	Attempt to comment on the extent of shifts and relevance of elasticity concepts but no substantiation.	1 – 2

# SUGGESTED ANSWER

## Question 2

The increase in foreign worker levy by the Singapore government has led to higher unit labour cost.

- (a) Explain how the above measure could affect the survival of firms in different market structures. [10]  
(b) Discuss whether firms in the real world set prices at profit-maximising level. [15]

### Question Interpretation

In part (a), students need to reference to the preamble given. It is given that the foreign worker levy will affect labour costs and result in higher unit labour cost, including raising marginal cost of production for firms.

Question mentioned different market structures. Students are free to consider any and at least two of the four market structures learnt. However, in view that it is in the Singapore context, there are hardly any monopolies. In addition, perfect competition is a theoretical extreme not to be applied in Singapore context.

Choice of market structures:

1. Monopolistic competition
2. Oligopoly

Economic model: cost-revenue curves

Economic concepts:

1. Survival – make at least normal profit
2. Higher unit labour cost – increase in marginal cost and average cost

In part (b), students need to consider if firms in the real world set prices at profit-maximising level, which is where  $MC=MR$ . This applies to firms regardless of the type of market structures they operate in.

Thesis-Antithesis-Evaluation structure applies:

Thesis: Firms do seek to profit maximise at  $MC=MR$

Antithesis: However, there are certain situations where firms may choose not to profit maximise at  $MC=MR$

Evaluation: Judgment on whether firms set prices at profit maximising levels in view of differences in objectives, presence of government intervention, short run vs. long run considerations, contestability or level of information available.

## **Suggested Approach**

### **Part (a)**

#### **Introduction**

Firms in Singapore face rising labour costs due to imposition of foreign worker levy. If a firm hires foreign workers, it will have to pay a levy (fixed amount) per head to the government on top of the workers' wages paid. This raises the marginal cost of production (MC) in firms who hire foreign workers. These firms could be operating in the F&B, hospitality, construction or shipping industries.

The survival of a firm requires that the firm at least makes normal profit in the long run. In view that this is a structural change that is permanent in the Singapore labour system, firms are due to consider it as a long term change in MC rather than just a short term increase in costs.

#### **Body**

##### **Effect of increase in MC on a monopolistic competitive (MPC) firm:**

**[Example]** MPC firms could be cafes that hire foreign waitresses.

**[Explain]** These firms will experience an increase in MC, *ceteris paribus*. MPC firms are characterised by large number of small firms, low barriers to entry (BTEs), some degree of imperfect knowledge and differentiated products. The low BTE results in highly competitive firms that constantly seek to create a niche through creating differentiated products that will capture the likes of a certain group of consumers. This allows them to enjoy a certain degree of market power where increase in price will not result in all quantity demanded lost.

However, due to the large number of substitutes available in the industry, each firm's demand (AR) is likely to be highly price elastic and small relative to the size of the entire industry. The highly competitive environment results in MPC firms making all three types of profits in the short run, but only normal profits in the long run. Some MPC firms do successfully retain their supernormal profits and grow to be large firms over time.

**[Illustrate]** Cost-revenue curves of a MPC firm that makes normal profit faces the increase in MC. The new  $MC=MR$  condition when applied, results in a price that is lower than the AC. The firm will shut down eventually (unable to survive).

In the SR, the MPC firm can remain in operation as long as the  $P > AVC$ . If the firm manages to differentiate its product according to the likes of the consumers and gains a larger AR, the firm may be able to survive in the LR.

##### **Effect of increase in MC on an oligopoly:**

**[Example]** Oligopolies could be property developers that build residential or commercial properties and hires foreign construction workers.

**[Explain]** These firms will experience an increase in MC, *ceteris paribus*. Oligopolies are characterised by small number of large firms, high BTEs, high degree of imperfect knowledge and differentiated/homogenous products. The high BTE results in a less competitive environment where existing firms are able to keep out new entrants and gain large market power and enjoy gains in revenue as the industry size grows. These firms are able to increase price without losing significant quantity demanded. In fact, due to the presence of few substitutes available in the market, each firm's AR is price inelastic and large relative to the size of the entire industry. These firms are able to make supernormal profits (SNP) in the LR as they are able to effectively keep put new entrants from competing away their market share.

**[Illustrate]** Cost-revenue curves of an oligopoly that SNP faces the increase in MC. The new  $MC=MR$  condition when applied, results in a price that is still higher than the AC. The firm retains its SNP and is able to survive.



The main reason is that the oligopoly is likely (though not definitely) to have SNP in existence, thus with the increase in MC, it will reduce the level of SNP available to the firm but not cause it to make losses (subnormal profit) and face the possibility of shut down. The oligopolies seem to be able to survive better than a firm that is operating in the MPC industry.

### Mark Scheme:

Level	Descriptors	Marks
L3	Has good description on the firms from different market structures; able to link the effects of foreign worker levy on MC/AC to the features of different market structures in Singapore. Has well developed and explained diagrams to show the possible survival of firms/how a firm does not survive. Cap at 8m for a well-developed answer but no reference to Singapore context.	7 – 10
L2	Able to explain the effects of foreign worker levy on marginal cost and average cost. Underdeveloped explanation on the effect of changes in MC and AC on the profit level of different firms. Little explanation on features of firms in different market structures.	5 – 6
L1	Smatter of points that show some understanding of survival of firms and the different market structures.	1 – 4

### **Part (b)**

#### **Introduction**

Profit-maximising level refers to output that is where  $MC=MR$ , and the corresponding price is a point on the AR. Firms are assumed to be profit maximisers and this is the fundamental assumption applied in the allocation of resources in an economy.

#### **Body**

##### **Thesis: Firms do seek to profit maximise at $MC=MR$**

**[Point]** Firms operate to maximise their profits to ensure survival as explained in part (a). This can be observed in the real world and is applied across all types of firms regardless of market structure.

**[Example]** When the price of sugar and ingredients went up, KOI issued a notice at all its outlets explaining that the price of its bubble tea will increase. This is aligned with the profit-maximising condition.

**[Illustrate]** The increase in MC will change the  $MC=MR$  condition, resulting in an increase in price and fall in output. (Note that this is different from part (a) because this is concerned with how the price and quantity will change following the shift of MC)

**[Example]** When there is an increase in demand for mandarin oranges during the Chinese New Year season, fruit sellers raise the price of mandarin oranges. This is aligned with profit-maximising condition.

**[Illustrate]** The increase in AR will change the  $MC=MR$  condition, resulting in an increase in price and output sold.

##### **Antithesis: However, there are certain situations where firms may choose not/be unable to profit maximise at $MC=MR$**

**[Point 1]** Lack of perfect information / Costly to acquire the information on cost and revenue

**[Explain]** The acquisition of perfect information may not be feasible as it is very expensive. In addition, there may be many different types of raw materials involved in the production of a good, thus the precise marginal cost is difficult to determine. An exquisite dish that uses

multiple types of ingredients in creating the broth/course with unique garnishes will be costly but it will be difficult to calculate the actual MC. It is likely that a restaurant may end up applying a cost-plus pricing strategy.

**[Explain]** Unable to accurately plot the AR and AC curves, thus the MR and MC are not known. This is due to dynamic market conditions that cause the AR and AC to change frequently. This applies especially to fast moving goods or goods that are fashionable only for a short period of time (e.g. rainbow loom kits).

**[Point 2]** Alternative objective: maximise revenue (can include other objectives such as growth maximisation)

**[Explain]** This could be tied to lack of perfect information. It is easy to record changes in revenue earned by a firm and also easy to adjust the output when the revenue starts to fall beyond a certain quantity sold. This means that the firm has reached  $MR=0$  and there is no need to increase output further.

Another reason could be the nature of the product sold in this firm. Insurance agents, car salesmen are often paid through commission and their remuneration will increase with the value of the products they sell. As such it will naturally create a culture within such firms to seek revenue maximisation rather than profit maximisation.

When a firm has grown very large, the operation of the firm is no longer managed by its owners, but rather its managers. In this case, the managers may find it easier to account to the shareholders on the performance of the firm by showing records that the revenue of the firm has been increasing and maximised. This can be related to managerial utility as well.

**[Illustrate]** The firm produces at  $MR=0$  instead of at  $MC=MR$ .

**[Point 3]** Government regulation

**[Explain]** There are some goods that are considered necessities and should be affordable to the masses. A public utilities/public transport firm may be subjected to the regulation by government authorities to charge prices that are lower than at  $MC=MR$ . These firms are often natural monopolies that enjoy significant IEOS, thus conferring upon them significant market power and the potential to exploit consumers for their own high levels of SNP. In this case, a government may require the firm to practise MC pricing so that  $P=MC$ ; the allocative efficient quantity is achieved. This is for the sake of equity and equality amongst the population in a country.

**[Illustrate]** The firm is expected to produce at  $P=MC$  instead of  $MC=MR$ . (Students can draw the natural monopoly diagram or a typical monopoly diagram.)

### **Evaluation**

There are many reasons why a firm may choose to deviate from the profit-maximising level of  $MC=MR$ . However, this is not to say that a firm does not wish to profit-maximise. They may be subjected to different situations and scenarios that require them to act in their best interests.

For instance, a firm may practise limit pricing or growth maximisation strategy to ensure that its firm can outgrow its competitors and gain monopoly status or high market power. This may not be aligned to the current  $MC=MR$  condition presented by their cost revenue curves but it is aligned to the LR perspective of survival and retention of profits. When a government chooses to intervene in the market to increase the contestability, an incumbent may also choose to deviate from the  $MC=MR$  condition.

Ultimately, in an environment where there is no government control, any firm would desire to profit-maximise; but the main deterrent would be the difficulty in seeking the perfect information to do so. Also the dynamism of the real world market conditions prevent the firms from profit-maximising at  $MC=MR$ .

**Mark Scheme:**

<b>Level</b>	<b>Descriptors</b>	<b>Marks</b>
L3	Well referenced diagrams that explain the alternative objectives of firms. Balanced answer with elaborated thesis and antithesis. At least two well developed antithesis points that explain firms' alternative objectives or reasons for not profit-maximising. Able to use examples to substantiate points mentioned in essay. Considered a thesis even if student gives a theoretical answer (stating that it is an assumption that all firms aim to maximise profit)	9 – 11
L2	Balanced answer but contains some conceptual errors. Underdeveloped thesis/antithesis but able to address question Lack of examples to exemplify points mentioned in essay. Some diagrams but inaccurate analysis OR no diagram to substantiate points mentioned in essay	6 – 8
L1	Shows some attempt to explain profit-maximisation of firms but did not show proper economic analysis. One sided answer that has some reference to the factors attributing to firms not profit maximising.	1 – 5
<b>Evaluation</b>		
E2	Able to make judgment on the importance of different factors affecting the firm's decision to profit maximise.	3 – 4
E1	Attempt to comment on the decision of firms choosing to profit maximise or not.	1 – 2

# SUGGESTED ANSWER

## Question 3

With reference to examples, discuss whether there is a need to change the current policies adopted by the Singapore government to achieve efficiency. [25]

### Suggested Answer Outline

**Efficiency → Economic Efficiency → Allocative & Productive Efficiency**

#### **Allocative Efficiency**

- Production or consumption of a good up to the point where the last unit provides a marginal benefit to consumers equal to the marginal cost of producing/ consuming.
- Price = Marginal Cost: Value society puts on that level of output produced equals to the value of resources used to achieve that level
- Social welfare is maximized with no [deadweight loss](#), not possible to make one better off without making someone else worse off.
- When a market fails to allocate resources efficiently, there is said to be market failure. Market failure may occur because of externalities, imperfect information, and imperfect competition.

#### **Singapore policies to deal with externalities**

- Eg, traffic congestion is costly to the individuals, third parties, society → loss of productive hours; costs incurred due to environmental pollution, wasted fuel and adverse health effects.
- Regulating vehicle growth via a quota and bidding system Certificate of Entitlement (COE) and Additional Registration Fee (ARF).
- Managing traffic demand through **Electronic Road Pricing (ERP)** System based on a pay-as-you-use principle, where motorists are charged when they use priced roads during peak hours. ERP rates vary for different roads and time periods depending on local traffic conditions. This encourages motorists to change their mode of transport, travel route or time of travel.
- Need to change? – Price inelastic traffic demand during peak hours leads to greater expenditure/ welfare loss for motorists. Depends on ability of government to put revenue collected to good use to deal with traffic congestion. A holistic and integrated approach is required, including building more roads, implementing traffic engineering solutions and promoting the use of public transport. Need to speed up developments to cope with targeted population growth, improve service standards of public transport by introducing more competition, restore public confidence in view of service disruptions. Also important to change mindset on car ownership as a status symbol.

#### **Singapore policies to deal with imperfect information**

- Eg, healthcare
- One party has more or better information than the other.

#### **Productive Efficiency from society's POV**

## **Current Policies adopted by the Singapore Government – Need to change?**

### **Transition Support Package (TSP)**

- Launched in 2013, comprises Wage Credit Scheme (WCS), Corporate Income Tax (CIT) rebate, and Productivity and Innovation Credit (PIC) bonus.
- In total, the TSP is estimated to disburse S\$7.5 billion over three years, higher than the original estimate of S\$5.3 billion. TSP will be phased out gradually.

### **Wage Credit Scheme (WCS)**

- In Singapore Budget 2013, the Government announced that it would provide support to help businesses raise workers' wages through WCS. Through WCS, businesses affected by economic restructuring will receive Government support to manage rising labour costs. The payouts will allow businesses to free up resources to make investments in productivity and to share the productivity gains with their employees. Under the scheme, the Government will co-fund 40% of wage increases given to Singaporean employees earning a gross monthly wage of up to \$4,000. Wage increases given in 2013 to 2015 will be eligible. This is part of its three-year transition support package to help companies during this period of restructuring, under its Quality Growth Programme.
- Need to change? – The scheme was refined in Budget 2015, where it was announced that WCS would be extended to 2017, but the government will only co-fund 20%, down 40%, of the wages increases given to Singaporean employees earning a gross monthly wage of up to \$4,000. The WCS will be extended for 2016 and 2017 to give employers more time to adjust to the tight labour market. This extension will cost about S\$1.8 billion in total.

### **Corporate Income Tax (CIT) Rebate**

- To relieve business costs, a 30 per cent CIT rebate, capped at \$30,000 per Year of Assessment, would be granted to companies for three years, from 2013 to 2015.
- Need to change? – The CIT rebate would be extended for 2016 and 2017 at the same rate of 30 per cent of tax payable, but up to a lower cap of S\$20,000 per YA. The reduced cap ensures that SMEs are the main beneficiaries of the rebate. Singapore's corporate tax rate is currently 17 per cent. The extension of the rebates is expected to cost the Government \$800 million over two years.

### **Productivity and Innovation Credit (PIC) Scheme**

- The PIC scheme, introduced in 2010, gives generous tax deductions to companies investing in six qualifying categories related to productivity. The qualifying activities are: acquisition and leasing of automation equipment; training; acquisition of intellectual property rights; registration of patents and trademarks; R&D; and design projects. The programme is part of government efforts to restructure the economy and raise productivity.
- Need to change? – A key limitation of the PIC scheme was that it was inaccessible to firms engaging in research and development (R&D). Many firms, especially small and medium-sized enterprises (SMEs), found it tough to use the scheme for R&D as this type of spending was often more difficult to accurately quantify compared with spending on technology and equipment such as iPads and printers, or staff training. The Government should have a clearer definition of what R&D means, so the money can go to companies that really improve productivity. R&D claims often involve protracted discussions on the technical eligibility of the projects. While it is important to ensure that there is no abuse of the scheme, it is equally important that the process of making R&D claims is not overly onerous or the application of the R&D definition so stringent as to render the scheme ineffective.

- **PIC Bonus:** To encourage businesses to boost their productivity, the government enhanced the PIC scheme by introducing a new cash bonus for participating firms in 2013. Businesses that spend a minimum of \$5,000 in PIC activities in a year will receive a cash bonus equivalent to the amount spent. The bonus will be capped at \$15,000 per year for the next two years of assessment, up to 2015. It will be paid over and above the existing PIC benefits. As at August 2014, more than \$1.8 billion in tax savings and cash payouts had been granted to businesses under the scheme. The PIC bonus will expire in 2015 because it was intended as a transitional measure and has been successful in encouraging businesses to take advantage of the main PIC scheme, spreading the culture of productivity among SMEs (small and medium-sized enterprises).

## **Policies to help firms achieve greater EOS, more productive efficient from society's POV**

### **3 measures to support local firms to internationalise - a key strategy to help them grow their revenue (Budget 2015)**

- First, the Government will raise the support level for small and medium enterprises (SMEs) for all activities under IE Singapore's grant schemes from 50 per cent to 70 per cent for three years. This will benefit about 700 projects.
- The Government will also enhance the Double Tax Deduction for Internationalisation scheme to now cover salaries incurred for Singaporeans posted overseas. This will provide greater support to companies venturing overseas, by co-sharing their risks and initial costs of expanding overseas, as well as creating skilled jobs for Singaporeans.
- The third measure is a new tax incentive, the International Growth Scheme (IGS), to provide support to meet the needs of larger Singapore companies in their internationalisation efforts. Qualifying companies will enjoy a 10 per cent concessionary tax rate on their incremental income from qualifying activities. It will encourage more Singapore companies to expand overseas, while anchoring their key business activities and HQ in Singapore

### **Collaborative Industry Projects (CIP) initiative**

- Budget 2015 announced a new incentive for firms that participate in industry-wide collaborations to help solve productivity challenges in their sector. This Collaborative Industry Projects initiative will be adopted in seven priority industries, including food manufacturing, retail, textile and apparel and furniture manufacturing, and will cost the Government an estimated \$100 million over three years.
- The Collaborative Industry Projects (CIP) initiative supports collaborations between enterprises and industry partners, such as Trade Associations and Chambers and solution providers, to address common industry-specific and business challenges. Enterprises and industry partners across all sectors are encouraged to form consortia to develop and deploy solutions that will help enterprises innovate and improve their productivity.
- Examples of projects include: Optimising resources through resource sharing or shared services, Outsourcing non-core business functions, Streamlining processes or upgrading capabilities along the value-chain, Co-innovating new product, service offerings and co-exploring market opportunities
- Small and medium sized enterprises (SMEs) will also receive more help in working with large multinationals to develop world-class capabilities. The Government will extend the Partnerships for Capability Transformation (PACT) scheme, which was initiated in the manufacturing sector, to other sectors.
- Another new initiative is the Land Productivity Grant, to support firms which intensify their use of land in Singapore. Help will also be given to those who choose to relocate some operations offshore, including to the immediate region, while retaining core functions in Singapore and saving land. This will cost the Government about \$60 million.

The Government is also launching an SME Talent Programme, which will provide awards to encourage polytechnic and Institute of Technical Education (ITE) students to work at SMEs upon graduation. In addition, the Government will improve the accessibility of Government support schemes for SMEs.

### Overall

- Current policies are relevant to achieve efficiency and need not be changed. In fact, need to retain current policies due to domestic and external challenges, eg, ageing population, increased external competition, global economic uncertainty.
- Singapore Government needs to constantly review its policies and make regular refinements. Safeguards in place, eg, expiry date for policies, public consultation, annual budget announcements, parliamentary debates.
- Need to change policies adopted to achieve efficiency if circumstances change, eg, if global or regional economic conditions improve, government can remove corporate tax rebates.

Level	Descriptors
<b>L3</b> <b>[15 – 21]</b>	<ul style="list-style-type: none"> <li>• Clear and well developed economic analysis, good structure. Provides a two-sided discussion on whether there is a need to change the current policies adopted by the Singapore government to achieve efficiency. Discussion focuses on both allocative and productive efficiency. Good use of relevant exemplification. [No cap]</li> <li>• Explains how the Singapore government achieves efficiency by adopting the current policies. Covers either allocative or productive efficiency only, with clear discussion on whether there is a need to change the current policies adopted. Good use of relevant exemplification. [Cap 18m]</li> <li>• Explains how the Singapore government achieves efficiency by adopting the current policies only. Covers both allocative and productive efficiency. Good use of relevant exemplification. [Cap 15m]</li> </ul>
<b>L2</b> <b>[10 – 14]</b>	<ul style="list-style-type: none"> <li>• Explains how the Singapore government achieves efficiency by adopting the current policies. Covers either allocative or productive efficiency. Some attempt to discuss whether there is a need to change the current policies adopted by the Singapore government to achieve efficiency, but lacking clarity and/or consistent reference to context. [Cap 14m]</li> <li>• Explains how the Singapore government achieves efficiency by adopting the current policies only. Covers either allocative or productive efficiency. Uses relevant exemplification. [Cap 12m]</li> <li>• Largely theoretical answer explaining how the Singapore government can achieve efficiency. Covers both allocative and productive efficiency. [Cap 10m]</li> </ul>
<b>L1</b> <b>[1 – 9]</b>	<ul style="list-style-type: none"> <li>• Weak explanation on how the Singapore government achieves efficiency by adopting current policies. Lacking clarity and/or consistent reference to context. [Cap 9m]</li> <li>• Largely theoretical answer explaining how the Singapore government can achieve efficiency. Covers either allocative or productive efficiency. [Cap 7m]</li> </ul>
<b>E2</b> <b>[3 – 4]</b>	Evaluation with good in-depth economic justification
<b>E1</b>	Evaluation without proper economic justification

[1 – 2]	
---------	--



# SUGGESTED ANSWER

## Question 4

**Balance of payments serves to highlight a country's competitive strengths and weaknesses.**

**Assess the extent to which an improvement in the living standards of an economy requires that achieving a healthy balance of payments be the top economic priority.**

**[25]**

1) Introduction:

- Define standard of living (SOL) & explain how material & non-material SOL is measured: SOL refers to the welfare/well-being for the average person in a country. Living standards of an economy can be in terms of material and non-material. In the narrow, measurable sense, material standard of living refers to the amount of goods and services that an average citizen can consume over a period of time, usually a year. Non-material living standard can be defined as the quality of life and measurements usually include stress levels, income inequality and the state of environment.
- Define healthy BOP: A BOP is considered to be healthy as long as the deficit or surplus is not huge or persistent.
- To enjoy an improvements in living standards, government generally aim to achieve the following macroeconomic goals; price stability, sustainable economic growth, low unemployment and healthy BOP but a government's policy decision inevitably leads to conflicts, or trade-offs in macroeconomic objectives and it is impossible to achieve all the goals simultaneously.
- Hence in the light of the above, this essay will assess the extent to which achieving a healthy BOP be the top economic priority to improve the living standards of an economy.

Main Body:

2) Thesis – Achieving a healthy BOP should be the top economic priority to achieve better living standards

*[Explain how achieving a healthy BOP will improve living standards]*

Thesis:

- In order to pursue a healthy BOP, a country may choose to increase its interest rate or depreciate its currency.
- A depreciation of the currency to improve the current account balance could lead to a rise in net exports causing AD to rise. This will in turn causes firms to produce more output and employ more workers. As a result, there is a fall in unemployment. Higher imports means the country could possibly enjoy a higher national income and more variety of goods and services. [improve material SOL]
- Achieving a healthy BOP can ensure a more stable exchange rate of the country's currency. This will in turn promote higher volume of trade as exporters and importers are more certain of the value of the currency and thereby giving them more confidence to increase trade. It also encourages higher investment in the country since firms are more certain of the returns. Higher investment will increase AD and through the multiplier process, national income will rise by multiple times. This in turn help to create jobs as firms step up their production and reduce unemployment [improve material SOL]

3) Anti-thesis – Achieving a healthy of payments should not be a top priority as there are other objectives are also as important to improve living standards

*[Explain that due to trade-offs, conflicts in macroeconomic objectives, achieving a healthy BOP alone will not improve material living standards & non-material living standards and explain that 1 other macro objective (e.g. price stability, sustained economic growth) and 1 micro objective (e.g. income inequality/ environmental standards) or 2 micro objectives are also as important to improve material and non material living standards]*

Conflicts in macroeconomic objectives: If the country chooses to increase its interest rate/ depreciate its currency (choose 1 depending on the thesis):

- However, with an increase in interest rate, this will bring about a fall in consumption and investment expenditure due to higher cost of borrowing, this leading to a fall in AD and national income via the reverse multiplier effect. Should the economy operates below full employment, there will be a fall in real national income leading to negative economic growth and rising cyclical unemployment. [worsening material SOL]
- Similarly, a depreciation of the currency causing AD to rise may lead to demand pull inflation if the economy is operating at full employment output. A high inflation can cause the country to lose its export competitiveness and at the same time lowers the purchasing power of the citizens. [worsening material SOL]

Explain any 1 macro-objective (with exemplification) that is more important to improve material SOL

- Sustained economic growth is more important than healthy BOP and should be a top priority to improve SOL.
- To generate sustained economic growth, governments can use demand-management policies such as fiscal or monetary policies, where the former adjusts government spending or taxation, while the latter adjusts interest rates or exchange rates, both to influence the level of economic activity within the economy. This will cause an increase in AD.
- The increase in AS (or the expansion of an economy's productive capacity) can be brought about by the use of supply-side policies such as wage and incomes policies or retraining of workers.
- When there is actual economic growth, SOL will be improved.
- This is because actual economic growth means that there is more output produced within the economy, which then implies that more goods and services is available for consumption. An increase in AD brought about by demand-management policies as mentioned earlier will cause NY to rise by a multiplied amount from Y to Y' through the multiplier effect, where the initial increase in spending brings about additional rounds of spending.
- If economic growth is sustained over a longer period of time due to an increase in *both* AD and AS, the increase in NY can be sustained permanently, leading to an increase in SOL *permanently*. In this case, the rise in NY does not conflict with rising GPL and real income is protected. This increase in SOL is sustained.

Explain any 1 or 2 micro-objective (with exemplification) that is more important to improve non material SOL

- Environmental standards are more important than healthy BOP and should be a top priority to improve SOL.
- Environmental standards refer to the quality of environment that can be measured by indicators such as the PSI (Pollutants Standards Index). Making healthy BOP the top priority in order to improve material SOL can ironically lead to a worsening of non-material SOL causing SOL overall to be lower.
- For example, negative externalities such as pollution have brought harmful effects to the quality of the environment in China because it is the so-called “factory of the world”. Over the last decade China’s key focus was on rapid economic growth driven by exports and FDI inflows. Whilst materially it can be said the SOL in China has jumped significantly (for instance, China has grown to become the second largest economy in terms of size of GDP), it came at a heavy price in terms of high level of pollution from factories and motor vehicles. Out of the world’s 20 most polluted cities, the top 16 came from China. It is not uncommon to see many parts of China covered by smog including Beijing.
- Therefore, if the top priority is instead on improving environmental standards through the focus on green or sustainable growth e.g. the use of green technology; alternative fuels e.g. solar and biofuels; SOL may be improved to a greater extent.

#### 4) Conclusion + Evaluation

- While achieving healthy BOP is no doubt important to improve living standards, given the dynamic nature of economies, it may not always be the top economic priority. This is because the achievement of healthy BOP may not improve non material living standards and there could be tradeoffs which could lower living standards as a whole. Hence there is a need to balance negative impact on the quality of life from achieving a healthy BOP. Policies could be implemented alongside the interest rate/exchange rate policy to also address issues of environmental degradation for instance, to improve living standards of an economy.
- Assess the extent to which depends on the state of the economy. For instance, when an economy like the US is facing high unemployment levels, the top economic priority then could be to stimulate economic growth and provide job opportunities to raise employment levels as taking steps to achieve macroeconomic goal would likely improve material SOL the most.
- Assess the extent to which depends on the stage of development an economy is at. For more developed economies, more emphasis will be placed on distributing the gains of growth more evenly to ensure that SOL is increased uniformly throughout.

Level	Description	Marks
L3	A balanced answer that displays strong economic analyses and conveys good understanding of question requirements by assessing the extent of improvement in living standards through achieving a healthy balance of payments.	15 – 21
L2	For an undeveloped discussion or unbalanced argument on how achieving a healthy balance of payments will improve living standards.	10 – 14

L1	For an answer that briefly displays knowledge of macroeconomic objectives and living standards OR a brief and undeveloped answer.	1 – 9
E2	For well-substantiated opinions with economic analysis.	3 – 4
E1	For non-substantiated opinions without economic analysis.	1 – 2

# SUGGESTED ANSWER

## Question 5

UK is in battle over stagflation. Growth has slowed due to its austerity measures and the European debt crisis, while unemployment and oil prices have risen. Economists consider stagflation particularly tough to battle.

- a) Explain the key causes of stagflation in UK. [10]
- b) Discuss the most appropriate policy that a government could adopt when confronted with stagflation. [15]

### Approach

#### Part (a) - Explain the key causes of stagflation in UK.

1. Define stagflation - persistent high inflation combined with high unemployment and stagnant demand in a country's economy.
2. Based on the preamble, UK was facing a few issues which were the key causes of its stagflation:
  - Austerity measures: To improve its budget position, the UK govt had to reduce govt spending and increase taxes. Impact on AD: Fall in G and rise in T (leading to fall in C and I) -> Fall in AD.
  - European debt crisis: ↓ NY in EU → DD UK's export ↓ (assuming normal goods) → ↓ net exports, c.p condition. Low business confidence → Less inflow of FDI -> ↓ AD → Fall in  $X_d$  and  $I_d$  -> Fall in AD
    - Fall in AD -> fall in GPL and NY (Explain the multiplier process)
    - Note that at the Keynesian range (not at full-employment), fall in AD -> fall in NY only (GPL may not fall)
    - Note that students may explain AD increases at decreasing rate given that the preamble stated slower growth]. Slower rise in AD -> rise in GPL and NY
  - Rising oil prices: increase in the unit cost of production -> firms driven by profit-motive respond by increasing the prices of their goods and decreasing their output level. Consumers respond to increase in prices by reducing consumption -> -> Fall in AS (upward shift of AS curve and a movement along AD)
    - Fall in AS -> rise in GPL and fall in NY
3. If fall in AD and AS -> increase in cyclical unemployment and fall in NY Note: Fall in AS must be > Fall in AD -> Rise in GPL (Illustrate with a diagram) or
4. If rise in AD and fall in AS -> stagnant / slow economic growth (slower rise in NY and rise in GPL) (illustrate with diagram)
5. Stagnant / Fall in NY and Rise in GPL -> Stagflation

Level	Descriptors
L1 Lower (1 -2 m)	<ul style="list-style-type: none"> <li>Do not understand the meaning of stagflation. Unable to highlight the twin problem of slow or negative economic growth and inflation</li> <li>Answers are mostly irrelevant, or largely descriptive and weak in economic analysis.</li> <li>Only a few valid points and definitions are made incidentally but largely insignificant.</li> </ul>
L1 Upper (3 -4 m)	<ul style="list-style-type: none"> <li>Able to explain what is meant by stagflation but unable to respond in the context of UK.</li> <li>Did not make reference to the preamble and did not use them as the key causes of stagflation. A theoretical answer that explains the reasons for recession and inflation.</li> <li>May not link the two together and hence unable to highlight the twin problem of slow or negative economic growth and inflation</li> <li>Did not use AD/AS analysis</li> </ul>
L2 (5 – 6m)	<ul style="list-style-type: none"> <li>Answer shows knowledge of how the events in the preamble lead to fall in AD and AS but failed to explain how these in turn leads to increase in GPL and fall / stagnant in NY (stagflation).</li> <li>Have a theoretical explanation of how fall in AD and AS lead to increase in GPL and fall in NY but no / limited reference to the preamble (mentioning only the event).</li> <li>Explanations were accurate but undeveloped.</li> <li>Use AD/AS analysis</li> </ul>
L3 Lower (7-8m)	<ul style="list-style-type: none"> <li>Answer shows good knowledge of how the events in the preamble lead to fall in AD and AS and how these in turn lead to increase in GPL and stagnant / fall in NY (stagflation). Each effect may be seen in isolation rather than a combined.</li> <li>Answer shows a good knowledge of how the events in the preamble lead to stagflation.</li> <li>Make good reference to the preamble in the explanation.</li> <li>Clear evidence of the ability to use AD/AS analysis with accurate reference to the question.</li> </ul>
L3 Upper (9 – 10 m)	<ul style="list-style-type: none"> <li>Thorough knowledge of facts in the given context (preamble) with an excellent ability to describe &amp; explain in a precise, logical, reasoned manner in explaining why AD and AS falls</li> <li>Clear evidence of the ability to use AD/AS analysis (with accurate reference to the question) to explain how stagflation arose.</li> <li>Able to explain the combined effects using the AD/AS diagram with no contradiction (i.e GPL does not fall)</li> <li>Graphs are properly drawn and explained and consistent with the explanation.</li> </ul>

**Part (b) - Discuss the most appropriate policy that a government could adopt when confronted with stagflation**

[Note that the question is on 'a' government' which is generic. Hence students need not discuss in UK context. Nevertheless, there is a need to discuss in context. There should be conditions set and assumptions made as students discuss the appropriateness of each of the policies in resolving stagflation]

1) Make clear what is meant by 'appropriate policy'

- What are the criteria for a policy to be appropriate? It must be **e**ffective in resolving the economic issues faced by the country (Eg, UK - slow / negative economic growth and inflationary pressure), are **f**easible and have minimal adverse **s**ide-effects. Best if it is targeted at the **r**oot cause of the issues (e.g. austerity measures, European debt crisis, rising oil prices) and the results can be seen in the shortest time **h**orizon possible. (In short, the most appropriate policy should meet the FRESH criteria)

2) Discuss why economists consider stagflation particularly tough to battle

**a) Discuss how demand-management policies can be used but may not appropriate**

- Briefly explain how expansionary dd-management (FP or MP) policies work to increase economic growth and discuss why they may not be appropriate (e.g. In UK context, FP- not feasible given UK's budget debts, **S - worsen inflationary pressure**, E – not effective given the lack of confidence)
  - FP - Slower economic growth arose due to its austerity measures, i.e. fall in G and rise in T (and hence fall in C and I) -> fall in AD. It is in fact a deliberate policy measure to correct its budget deficit. Hence not feasible to adopt expansionary FP to promote growth.
  - MP - Reducing i/r will be more appropriate as the fall in the unit cost of borrowing will increase the net rate of return of its investment -> increase Id and Cd -> increase AD. However, it may not effective as I and C may be interest inelastic if there is low confidence level. Increase AD may also increase inflationary pressure given the rising oil prices. I may -> rise in AS but only in the LR. Cannot resolve the current inflationary pressure
  - Exchange rate P – Allowing pound to depreciate can help increase X but it may not be effective given that its largest trading partners, ie the EU countries are in debt crisis (from preamble). The depreciation of pound may weaken investors' confidence further -> further reducing I and C (Side-effect) and may even lead to capital flight (hence worsening BOP)
- Briefly explain how contractionary demand-management policies (FP or MP) adopted to control inflation and discuss why they may not be appropriate
  - In the context of UK, since inflation is due to rising oil prices which is a cost-push inflation, it does not solve the root of the problem. In any case FP is already contractionary as it is. Increasing r/I and allowing the pound to appreciate will only stagnate the economy further as I, C and X will fall. Although appreciation of pound does help to reduce the increase in oil prices
- Hence both expansionary and contractionary demand management policies are generally inappropriate as they are either ineffective, does not resolve the root cause of the issues or have severe consequences on the economy.

**b) Discuss how trade-policies may be deemed more appropriate to resolve stagflation**

- In the context of UK, given its austerity measures, it will not be feasible for UK to rely on domestic firms and households for growth and need to look for external sources of growth; with the European debt crisis, it is necessary for UK to expand its trading partners; with the rising oil prices, it is necessary for UK to look for alternative sources of oil too.
- Hence UK govt can sign more FTAs with many different countries so as to diversify trading partners. However, the effectiveness of this policy is questionable as well, especially when there is a global recession (due to contagion effects from EU debt crisis) which affects all economies.

**c) Discuss how supply-side policies (SSP) may be deemed even more appropriate to resolve stagflation**

- Discuss how short-term SSP can be used to promote actual growth and counter cost-push inflationary pressure (eg. due to increasing oil prices in UK context):
  - Wage policies to help reduce unit cost of production to firms in view of rising oil prices. E.g. UK govt can request for trade union's support in recommending lower wages for its workers in view of the prevailing economic conditions (or at least ensure that the wage increases will lag behind productivity growth) or subsidise the firms by co-paying the workers. These short-term measures will reduce unit labour costs -> increase SRAS (shift AS curve downward) -> raises actual growth and reduce inflationary pressure.
  - However, these short-term measures do not solve the root causes of the problems and may worsen the govt's budget deficit in UK context
- Discuss how long term supply-side policies (SSP) can be used to promote actual and potential growth and achieve non-inflationary sustained economic growth (LR):
  - Industrial policies to develop dynamic CA - A government can disburse grants and provides tax rebates to attract FDI to promote the development of new growth industries and develop industries with potential CA. E.g. clean energy sector, bio-medical sector, etc. In the LR, with the CA established in these sectors -> promotes export growth-> increase export revenue -> increase AD-> increase real NY more than proportionately through the k effect -> raises actual growth. With increase in FDI in these sectors -> increase capital stock accumulation, technology transfer -> increase productive capacity -> achieves potential growth.
  - Manpower policies to increase productivity. Manpower policies in the form of government spending on training of workers to enhance skill sets of workers (e.g. WTS) -> raise labour productivity -> i) lowers labour cost -> increase SRAS, achieves actual growth; ii) increase quality of labour -> raises productive capacity -> achieves potential growth.
- However, it is important to note that although SS-side policies do not lead to conflicting goals unlike DD-management policies, and can improve economic growth and reduce inflationary pressure in theory, it may not be effective for the following reasons
  - SS-side policies do not resolve the root causes of the economic issues faced by the country. E.g., in UK, the stagflation was essentially due to lack of AD and a supply-shock issue.
  - Increasing productive capacity which is a LT solution cannot resolve current economic issues.



- Providing grants will again worsen its budget deficit problem which may not be feasible.

### Judgement

- Agree that stagflation is tough to battle. If the stagflation is purely caused by cost-push inflation, Short term SSP will be the best solution. If there are multiple causes of its stagflation, e.g. in the case of UK, then there is a need to have a **best combination** of policies instead.
- In the **short term**, SSP to reduce unit COP and trade policies such as FTA to diversify sources of input (to avoid higher oil prices) and markets (to reduce contagion effects due to external crisis) and **long term** ss-side policies to develop CA to enhance competitiveness in the international arena.
- **Conditions for success**
  - Sufficient **business confidence** without which I will not increase even with fall in  $r/i$
  - **Effectiveness** of industrial and manpower **policies** without which US will not be able to increase its competitiveness and its expenditure may even worsen its fiscal position

Level	Descriptors
L1 (1-5 m)	<ul style="list-style-type: none"> <li>• Answers are mostly irrelevant, or largely descriptive and weak in economic analysis.</li> <li>• Inadequate development of economic analysis</li> <li>• An answer with very limited ideas relevant to the given context, or containing some conceptual errors.</li> </ul>
L2 (6-8 m)	<ul style="list-style-type: none"> <li>• For an under-developed analysis or an imbalanced/ unconvincing discussion of the policies to curb stagflation though there are some correct use of concepts</li> <li>• Expect a theoretical answer with no application to real world context</li> <li>• Use AD/AS framework in the analysis</li> </ul>
L3 (9 – 11 m)	<ul style="list-style-type: none"> <li>• For an excellent and comprehensive analysis of each of the policies, how they work and why they may not be appropriate given the context.</li> <li>• It should have at least three policies each focusing on a different aspect of AD or AS, although one could be briefer than the other 2). Only two policies were well discussed (Max 9m)</li> <li>• It should be a balanced discussion examining the pros and cons of each policy in given contexts (may not be based on the preamble)</li> <li>• Excellent use of the AD/AS framework in the analysis</li> </ul>
E1	<ul style="list-style-type: none"> <li>• Attempt to make a judgement on the most appropriate policy but justifications are weak.</li> </ul>
E2	<ul style="list-style-type: none"> <li>• A sound judgement on the most appropriate policy with strong economic justifications based on the characteristics of the mentioned economy (ies), highlighting necessary conditions, stating implicit assumptions and with a good understanding of the given context / prevailing external economic conditions.</li> </ul>

# SUGGESTED ANSWER

## Question 6

Trade protection hurts the economy of the country that imposes it.

a) Explain how a country could impose trade protection to reduce its imports. [8]

b) Discuss the extent that you agree with the above view. [17]

a) Explain how a country could impose trade protection to reduce its imports. [8]

### Approach

To use at least 2 different protectionist measures to explain how a country reduces its imports.

To include tariff as one of the measures to ensure rigour given that it is the only measure where the impact can be analysed using a diagram (quota can be used too)

[Note that in the real world, many countries adopt a wide range of tools that restrict imports. They include Tariffs, Quotas, Exchange controls, Import licensing, Subsidies, Administrative barriers and Procurement policies]

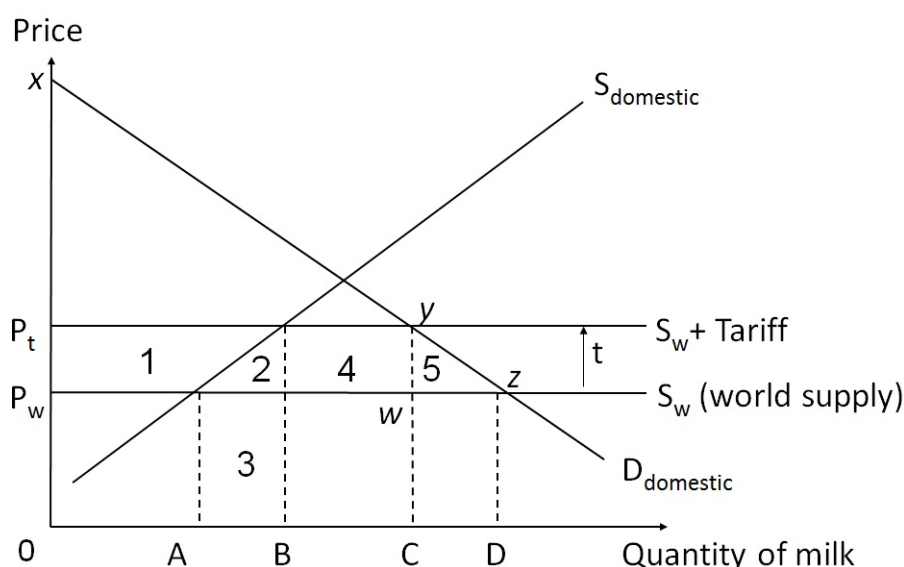
### i) Explain how Tariffs can be used to reduce a country's imports

These are taxes on imports imposed by the government. Tariffs can be levied in two ways:

- A specific tariff is a tax calculated as a fixed amount of money per unit of the import, independent of the price of the product
- An ad valorem tariff is a tax on an import calculated as a fixed percentage of its price.

### Diagrammatic illustration of the effects of Tariff on Imports

Figure 1: Imposition of specific tariff on imports



To understand how tariff can be used to reduce imports, consider a good, e.g. milk, that is partly home produced and partly imported. Domestic demand and supply are given by  $D_d$  and  $S_d$  respectively. It is assumed that firms in the country produce under perfect competition and therefore the supply curve is the sum of the firms' marginal cost curves.

Assume also that the country is too small to affect world prices, meaning that the amount of milk she imports is not able to impact upon the imported price of milk<sup>1</sup>. This results in the country being a price taker, where she can import as much milk as she likes at the prevailing world price of milk, which is  $OP_w$ . The supply curve of imported milk is perfectly elastic.

Under free trade, domestic price cannot differ from the world price<sup>2</sup>.

At  $OP_w$ , the level of:

- Domestic production = OA
- Domestic consumption = OD
- **Imports = AD**

After the imposition of a specific tariff of \$t per unit,

- Supply curve of imports shifts up by the amount of the tariff since the tariff adds to the foreign producer's costs of every unit sold in the country imposing the tariff.
- Domestic price rises from  $OP_w$  to  $OP_t$

At  $OP_t$ , the level of:

- Domestic production = OB (increased by AB)
- Domestic consumption = OC (decreased by CD)
- **Imports = BC**

To sum up, based on the diagram, by raising the price of imports when they enter the domestic market, governments have given the domestic producers an advantage as more of them are now able and willing to increase their quantity supplied (i.e. from OA to OB) at the higher price of  $P_t$ . In addition, due to the increase in price, quantity demanded fell from OD to OC. As such, due to the imposition of tariff, imports reduced from AD to BC.

**[ Not nec to explain the impact on society]**

---

<sup>1</sup> The quantity a country imports makes up a small part of overall world demand for the good. The country has no means to change world price even if she chooses to purchase more or less imports. If the country is a large buyer of imports, the world price could increase/decrease if she demands a larger/lower quantity of imports, assuming world supply unchanged.

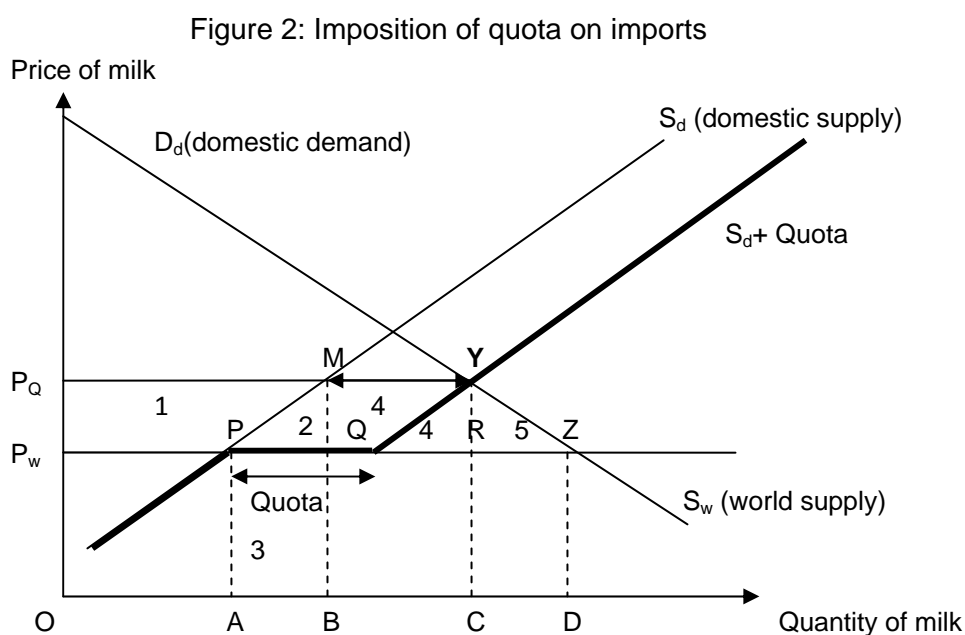
<sup>2</sup> This is because when free trade is allowed, consumers in the domestic market can always choose to purchase cheaper import substitutes, therefore domestically produced goods must be at least the same price as these imports.

OR

ii) Explain how Quotas can be used to reduce a country's imports

These are limits imposed on the physical quantities or values of goods imported into during a period of time. By restricting the quantity of imports, quotas directly lower supply, causing equilibrium price higher than under free trade ( $P_w$  to  $P_Q$ ).

Diagrammatic illustration of the effects of a Quota on Imports



Assuming foreign milk producers are willing to supply all the milk that is demanded by the country at  $OP_w$ . The supply curve of imported milk is perfectly elastic at  $S_w$

Under free trade, domestic price cannot differ from the world price.

At  $OP_w$ , the level of:

- Domestic production =  $OA$
- Domestic consumption =  $OD$
- **Imports =  $AD$**

After the imposition of a quota  $PQ (= MY)$

- Total supply curve of cars shifts rightward from  $S_d$  to  $S_d + \text{Quota}$  (Max that can be imported)
- Domestic price rises from  $OP_w$  to  $OP_Q$

At  $OP_Q$ , the level of:

- Domestic production =  $OB$  (increased by  $AB$ )
- Domestic consumption =  $OC$  (decreased by  $CD$ )
- **Imports =  $BC (= PQ = MY)$**

To sum up, quotas are limits to the quantity of a good that can be imported. If the quotas are binding (i.e. set below the original level of imports), imports will fall to the limit set by the government.

iii) **Explain how other protectionist measures can be used to reduce a country's imports**

**Other Protectionist Measures**

(i) Subsidies

Subsidies are alternatives to tariffs. Subsidies are cash grants given by the government to domestic producers to give a cost advantage, allowing them to lower their prices and compete with imported goods. If effective, the level of imports will fall.

(ii) Exchange Controls

This involves government control over the purchase and sale of foreign exchange and hence limits on the amount of foreign exchange made available to importers (financial quotas). Alternatively, they can be in the form of charges made on people purchasing foreign currencies. International trade is carried out in terms of foreign currencies, so the control over the purchase of foreign exchange will limit the amounts as well as the types of imports.

(iii) Import Licensing

Import licensing is typically used with exchange controls as a way of enforcing the exchange controls. This comes in the form of import licenses that importers need to acquire before they are able to acquire foreign exchange or are able to import goods. This is also used as a way to enforce quotas.

(iv) Embargo

This is a complete ban on certain imports or exports from or to certain countries. This could be done for social (e.g. with demerit goods) and political reasons.

(v) Recent Forms of Protectionist Measures

These are more subtle and less obvious forms of trade barriers (disguised restrictions) developed in recent years (perhaps as a result of the successful negotiations for tariff reductions by GATT and subsequently the WTO).

- The implementation of *technical specifications and standards* which discriminate in favour of home producers e.g. safety and hygiene regulations on food and pharmaceutical products.
- *Administrative regulations* regarding import procedures which may be so bureaucratic as to seriously delay and therefore reduce the volume of imports which are seen as a threat to domestic producers
- *Voluntary export restraints* (VER) or voluntary restraints agreements (VRA) where the exporting country is persuaded by the importing country to voluntarily reduce their exports under threats of all-round trade restrictions. VERs were negotiated by the US on textile, automobile, steel and shoes when home industries were threatened by more efficient, lower cost imports from Japan.

Level	Descriptors
L1 Lower (1 -3 m)	<ul style="list-style-type: none"> <li>Answers were mostly irrelevant. Only a few valid points and definitions are made incidentally but largely insignificant.</li> <li>Answers are largely descriptive and weak in economic analysis.</li> <li>Can name the measures but could not explain how the measures can be used to reduce imports.</li> </ul>
L2 (4 – 5m)	<ul style="list-style-type: none"> <li>Answer shows knowledge of how the measures reduce imports.</li> <li>Included tariff/quota as one of the measures but may not have illustrated with a diagram. Explanations were accurate but undeveloped.</li> <li>Max 5 m if student explains only tariff / quota but it must be well explained and well-illustrated.</li> </ul>
L3 (6 – 8 m)	<ul style="list-style-type: none"> <li>At least two measures including tariff or quota.</li> <li>Tariff / quota diagram was properly drawn and explained</li> <li>Clear evidence of the ability to analyse how tariff/quota <u>can be used to reduce imports</u>.</li> <li>Explanations of the measures must be accurate, precise, logical and reasoned.</li> </ul>

**(b) Trade protection hurts the economy of the country that imposes it. Discuss the extent that you agree with the above view. [17]**

### **Approach**

- Thesis: Explain the basis for this view - that trade protection hurts the economy of the country that imposes it.
- Anti-thesis: Discuss the limitations and contradictions of this view – i.e. trade protection will not hurt the economy that imposes it.
- Judgement – whether trade protection hurts the economy or not depends on whether there is justification for protectionism.

### **Introduction:**

- Make clear what 'hurting' an economy entails. Relate it to the macro economic goals of the economy – high and sustained economic growth, full employment, price stability and healthy BOP. Hurting the economy -> going against the achievements of these macroeconomic goals -> worsening economic performance
- Note that the implementation of trade protection is always with good intent for the economy of a country, although it may favour some industries / sectors at the expense of others as well as consumers.
- There are 3 main reasons why countries impose trade protection – as a measure (i) to resolve current economic issues, (ii) to sustain its economic growth and (iii) to retaliate against unfair trade practices. Within each, there are reasons pertaining to specific economies. For each of the reason cited, there must be a discussion on the extent you agree with the above view, that protection will hurt the economy that imposes it.

**(i) Trade protection is often used to resolve current economic issues faced by the country. For instance**

**Thesis 1: Trade Protection to avoid structural unemployment will slowdown restructuring process and adversely affect potential economic growth -> Trade protection hurts the economy of the country that imposes it.**

- Trade protection to avoid structural unemployment may unnecessarily slow down the restructuring process, depriving the other thriving industries of valuable resources
- The problem is often a lack of willingness to restructure when a country loses its comparative advantage over time. If the developed country has lost its CA, it should re-look these industries and if necessary, let them shut down to divert resources to other more productive uses.
- Tariff protection against low-cost producing countries will safe-guard workers in the protected high wage industries but at the expense of firms which use these products as factor inputs.
- Consumers will also be denied the opportunity to buy from the cheaper source of supply. Therefore, benefits from trade will be lost.

**Anti-thesis 1: Trade Protection may not hurt the economy of the country imposing it**

- Structural unemployment arises from occupational or geographical immobility of labour and structural change, each of which is a necessary but insufficient condition for structural unemployment to occur.

- **Unless there is perfect factor mobility**, if not, trade protection is indeed a way to avoid the structural unemployment when structural change occurs due to the loss of comparative advantage due to, say, the emergence of a low cost country,
- Without protection, the local industries will be edged out and have to close down, resulting in the fall in employment and standard of living.
- **To protect jobs**, countries hence press for higher tariffs and other means to keep out cheaper imported goods. This argument has been used in the US to protect the automobile, steel and textile industries.

#### Evaluation 1:

- The argument hinges on the fact that retraining takes time. Trade protection here can be justified only as **a short-term measure** while retraining of workers take place. A better way to prevent structural unemployment and its concomitant negative effects would be to retrain the displaced labour so that they can be effectively re-channelled into other industries.

**Thesis 2: Trade Protection to increase domestic production and employment in times of recession will lead to beggar-thy-neighbour effects -> reduce export revenue -> adversely affecting domestic production and employment -> Trade protection hurts the economy of the country that imposes it.**

- Protectionism in these economies is usually brought about under the pressures of trade unions. Many of the protected domestic industries can no longer compete with foreign counterparts even in their domestic markets. Their wages have risen faster than the growth in their labour productivity and thus their products have been priced out of the market.
- Protectionism under such circumstances will not increase total employment. It merely perpetuates domestic inefficiency and leads to misuse of resources. Protectionism given for this reason is akin to a 'beggar-thy-neighbour' policy. This means that the benefits of increased employment enjoyed by the protected country are achieved at the expense of its trading partners.
- The partners who experience a decline in export sales and consequently a lower employment level will trigger off similar retaliatory measures.

**Anti-thesis 2: Trade Protection may not hurt the economy of the country imposing it**

- Trade protection can be justified during periods of recession and economic stagnation. Protection here is an emergency measure against general depression to avoid unemployment. Money spent on imports will only create employment in foreign countries and not at home. Imposition of tariffs and quotas on imported goods create jobs by raising the prices of imports and diverting demand towards domestic production.

#### Evaluation 2:

- Only effective for countries with large domestic market

**Thesis 3: Trade Protection to reduce Current Account Deficit will lead to beggar-thy-neighbour effects -> reduce export revenue -> adversely affecting domestic production and employment -> Trade protection hurts the economy of the country that imposes it.**



- Trade protection may result in a fall in import expenditure, therefore improving the current account.
- But such measures beggar-thy-neighbour and invite retaliation from trading partners in the long run, resulting in a reduction of the country's exports and hence reduce the total volume of world trade

**Anti-thesis 3: Trade Protection may not hurt the economy of the country imposing it**

- Current account deficit can be caused by importing too much and is undesirable as it leads to a depletion of foreign currency reserves. Young nations whose foreign reserves are low are vulnerable to this. These limited amounts of foreign reserves are needed for importing raw materials and capital for nation building. Imports of consumer goods only serve to drain the foreign reserves.

**Evaluation 3:**

- At best a short-term measure to improve current deficit. In the long run, it is better to look at the root causes. For example, the root of the problem may be the rate of inflation. The best remedy should be to deflate the economy with contractionary monetary and fiscal policies rather than protective measures.

**(ii) Trade protection is also used to reduce vulnerability and sustain economic growth. For instance**

**Thesis 4: Trade Protection to develop infant industries may lead to inefficiency and adversely affect economic growth and employment -> Trade protection hurts the economy of the country that imposes it.**

- It is difficult to identify with certainty industries that are presently unprofitable but which may acquire comparative advantage in the long run. The government may incorrectly choose those industries without any potential comparative advantage. This leads to wastage of resources as government incur opportunity costs from subsidies given to these industries, and domestic consumers do not get to maximise their welfare due to higher domestic price compared to imports. If investments were made in other areas, the rate of economic growth and employment creation could be faster.
- It is difficult to decide when the industry is fully and sufficiently established to do without protection. Some may remain as 'perpetual infants', requiring continual protection for survival and may continue to be inefficient and backward for a long time. This is because they are not subjected to the 'discipline of the free market' and hence suffer from X-inefficiency to lower unit cost of production sufficiently to become internationally competitive on their own.
- It is difficult to remove protection once it is given due to vested interest and political pressures, especially if the government receives political funding from firms in such industries.

**Anti-thesis 4: Trade Protection may not hurt the economy of the country imposing it**

- An infant or newly established industry does need help in its initial stages because heavy initial costs are likely to be incurred and these costs cannot be completely covered by the initial small output. Time is needed to develop skilled management, reputation and exploit efficient technologies.
- Based on the fact that such industries have potential comparative advantage, a guaranteed home market will enable them to gain EOS and gain experience in production. Once they have achieved comparative advantage, the protection will be

removed. They will be able to compete in the world markets as their prices are now comparable to similar exports from other countries.

#### **Evaluation 4:**

- Despite the inefficiency that restricting imports cause, government can sometimes justify the use of these protectionist methods if the long term benefits of growing the infant industries outweigh the short term deadweight losses to society.

**Thesis 5: Trade Protection to diversify for stability and growth may lead to inefficiency and adversely affect economic growth and employment -> Trade protection hurts the economy of the country that imposes it.**

#### **Anti-thesis 5: Trade Protection may not hurt the economy of the country imposing it**

- This argument is based on the undesirable consequences of narrow specialisation and over-reliance on other countries. Specialised industries are vulnerable to economic changes resulting from changes in tastes, technology, etc. An economic decline in these industries may result in massive unemployment, given the structural rigidity of the economy. Countries that are highly specialised in agricultural goods or other primary products are also subject to frequent price fluctuations and financial speculations as these goods tend to have price inelastic demand and supply. As such, these countries would like to diversify their economies into other less volatile industries. While they may not possess the comparative advantage to do so, protectionism is sought as a means to develop new industries.
- This argument for protection is given to support the diversification of economies especially if the terms of trade have been moving against the products which they specialise in. For example, less developed countries (LDCs) are encouraged to move into manufactured exports so that reliance on export goods with low income elasticity of demand<sup>3</sup> (e.g. agricultural products) can be reduced.

#### **Evaluation 5:**

- Such a policy may not be sound based on the Theory of CA. However, theories of development have shown that there is justification for a balanced economic growth. Moreover, it is believed that the pattern of comparative advantage can change over time, either naturally (discovery of new raw materials) or as a result of deliberate policies (in the field of education, capital investment or technological research) to acquire the advantage. For example, the successes of NIE's such as Brazil, Hong Kong, Singapore and Taiwan are seen to be based on acquired skills and government policies that create favourable business conditions.
- Again, protectionism is not the only solution for these countries. Developing a comparative advantage in the long term by building up their infrastructure and improving education may be a better solution. And in the short term, there are other ways to mitigate the fluctuations in the primary products markets such as the use of international price fixing agreements or forward markets to hedge against erratic price changes.

#### **(iii) Trade protection is also used to reduce unfair trade practices. For instance**

---

<sup>3</sup> Exports with low income elasticity (assuming  $YED < 1$ ) will mean that the increase in demand for these exports will increase less than proportionately to increase in world incomes. Countries exporting such goods will not experience economic growth as rapidly as those countries that export income-elastic goods.

**Thesis 6: Trade Protection to discourage unfair competition arising from exploited foreign labour may lead to inefficiency and adversely affect economic growth and employment -> Trade protection hurts the economy of the country that imposes it.**

- This is an outright rejection of the Theory of CA especially if the cheaper foreign labour costs are due to CA. The basis of specialisation and trade is to exploit international differences in relative factor prices due to differences in factor endowments. Developing countries can produce labour-intensive products cheaply because of their relatively abundant labour endowment. It is cheaper for developed countries to import such products than to produce it themselves.

**Anti-thesis 6: Trade Protection may not hurt the economy of the country imposing it**

- It is argued that imports from developing countries are cheap not because they have CA but because they are made via exploitation of labour, especially child labour. Developed countries (where the people enjoy high wages) have often claimed that developing countries pay their workers miserably low wages and force them to work in severe environments. This has created import prices that are lower than what it should have been, creating an unfair advantage against the domestic goods. Hence, trade barriers should be established to restrict imports from developing countries to discourage such exploitation.

**Evaluation 6:**

- Justified only if it can be proven that the workers are paid below their marginal revenue product. If workers are paid lowly because of their low efficiency (i.e. productivity) level and the low value of the output that they produce, then it is not considered as exploitation. Reducing import will not help these workers as it will lead to unemployment -> greater hardship.

**Thesis 7: Trade Protection to counter foreign subsidies and dumping may lead to inefficiency and adversely affect economic growth and employment -> Trade protection hurts the economy of the country that imposes it.**

**Anti-thesis 7: Trade Protection may not hurt the economy of the country imposing it**

- Dumping is a trade practice where exporters sell their products below marginal cost. This is often made possible with government subsidies. The objective is to drive out domestic producers so that the exporter can monopolise the market. The effect would be a reduction in domestic output and employment. Prices would be increased after the collapse of the home industry. To counter this, the affected industries' governments use punitive tariffs as an anti-dumping measure.

**Evaluation:**

- While this is frequently used, dumping is not easy to prove. Countries accused of dumping and have punitive tariffs imposed on them typically retaliate by imposing their own tariffs on the other country, and a trade war can very quickly ensue.
- If proven true, trade protection is justifiable as dumping could result in possible loss of domestic employment and closure of domestic firms not due to the firms being less cost efficient than foreign producers.. However, the level of protection should only cover the difference between the export price and the normal price paid by consumers in the exporting country.
- If foreign producers sell at a lower price in the international market than in its home market simply because of differences in the price elasticity of demand (i.e. 3<sup>rd</sup> degree price discrimination), the importing country's consumers can actually benefit in the

long term from the lower import prices. In this case, protectionism is not necessarily justified.

## Judgment

Whether trade protection will hurt the economy of the country not depends on whether there is justification for trade protection. For example,

- Benefits from free trade are derived based on the assumption of fair trade. If it is proven that domestic industries are subject to unfair practices due to dumping or foreign government subsidies or exploitation of workers, then trade protection will not hurt the economy.
- Benefits from free trade are also derived based on the assumption of perfect factor mobility within the country and no changes in relative factor endowments. In reality, there is factor immobility and eroding CA -> structural unemployment and hence the need to restructure economy and develop new CA. Trade protection will not hurt the economy in condition that the right industries are chosen

If there is no justification, then there will be welfare loss as firms are retained unnecessarily by protection in activities in which their productivity is lower than it could have been in another activity. Sheltered by protective barriers, firms have less incentive to respond swiftly to changes in market conditions or to reduce prices, produce better quality products and/or improve productivity. Once a protectionist measure is imposed, it is not easy to remove it. All sorts of industries may also clamour for protection and political corruption may be encouraged. As such, it is important for a government to find out the root causes of economic problems that the economy faces.

Level	Descriptors
L1 (1-6 m)	<ul style="list-style-type: none"> <li>• Answers are mostly irrelevant, or largely descriptive and weak in economic analysis.</li> <li>• Inadequate development of economic analysis</li> <li>• An answer with very limited ideas relevant to the given context, or containing some conceptual errors.</li> </ul>
L2 (7-9 m)	<ul style="list-style-type: none"> <li>• For an accurate but under-developed analysis, imbalanced or unconvincing discussion of whether trade protection will hurt the economy of the country that imposes it.</li> <li>• AD / AS framework is needed</li> </ul>
L3 (10 – 13 m)	<ul style="list-style-type: none"> <li>• For an excellent and comprehensive analysis of whether trade protection will hurt the economy of the country that imposes it</li> <li>• It should have at least three justifications with exemplifications to ensure that the discussion is contextualised</li> <li>• It should be a balanced discussion examining the justification for and against trade protectionism focusing on the issue on whether it hurts or benefits the economy that imposes it.</li> <li>• Excellent use of the AD/AS framework in the analysis</li> </ul>
E1 (1-2 m)	<ul style="list-style-type: none"> <li>• Attempt to make a judgement but justifications are weak.</li> </ul>
E2 (2-4 m)	<ul style="list-style-type: none"> <li>• A sound judgement on whether trade protection will indeed hurt the economy of the country that imposes it, based on validity of the justifications cited, highlighting necessary conditions, stating implicit assumptions and contextualised.</li> </ul>

