Case Study Question 1
Suggested Answer

(a)		With reference to Extract 3, explain why the value of the price elasticity of supply of new housing in UK might change over time.	[3]
		<u>Define PES [1m]</u> Price elasticity of supply measures the degree of responsiveness of <u>quantity supplied</u> of a good to a change in its <u>own price</u>, <u>ceteris paribus</u>. <u>State + Explain that in SR: PES<1 [1m]</u> Need time to build houses and in the short term, there is a "lack of materials and labour… bricks running out… construction workers left the industry" <u>State + Explain that in LR: PES likely >1 [1m]</u> Availability of materials as "brick makers reopen plants" and skilled workers as former military personnel join the construction industry and training schemes help to train them to become skilled workers.	
(b)	(i)	What is meant by price elasticity of demand? Price elasticity of demand measures the degree of responsiveness of <u>quantity demanded</u> of a good to a change in its <u>own price</u>, <u>ceteris paribus</u>.	[1]
	(ii)	With reference to Table 1, how far does the concept of price elasticity of demand help to explain the difference in the electricity charges during day and night? <u>State that the electricity charges are higher in the day, compared to the night. [1m]</u> <u>Explain that the different prices charged for the usage of electricity could be due to difference in the price elasticity of demand. [2m]</u> - Firms/producers would raise price to increase its total revenue if the demand for the good is price inelastic. However if the demand for the good is price elastic, the firm would lower price to increase its total revenue. - The difference in the electricity charges could be due to differences in price elasticity of demand. Day prices are higher as demand for electricity is more price inelastic due to higher degree of necessities in the day time where electricity is required for the functioning of the economy when most people are awake, e.g. business and production activities, school, households etc. Night prices are lower as demand is more price elastic due to lower degree of necessities. Most activities are not essential to be conducted in the night when most people will be resting. - In this case, the electricity company, Good Energy, would charge a higher price during the day, compared to the night. <u>Explain that the different prices charged could be due to difference in demand (for electricity to function the economy) and supply (cost of production). [2m]</u> - During the day (peak period), there is a higher level of demand for electricity to function the economy. Thus, the demand for electricity during the day (peak period) is higher, compared to the demand for electricity at night (off-peak period).	[6]

		- The cost of production is also higher in the day (peak period) compared to the night (off-peak period). During the night (off-peak period), nuclear and coal-fired stations, with lower operating costs, will be used. However, during the day (peak period), power stations with higher operating costs (e.g. oil-fired stations) will have to be activated. - With higher demand and higher operating costs in the day, Good Energy would charge a higher price during the day, compared to the night. Conclude that the data on PED is not available hence the difference in the charges is likely due to peak period vs off-peak period. Any other possible conclusion is acceptable. [1m]	
(c)	Explain what is meant by the term 'negative externality'. Externalities occur when the production or consumption of a good affects the well-being of third parties who neither receive nor pay any compensation for that effect. [1m] Negative externalities are harmful spill over effects or external costs imposed on third parties. [1m]	[2]
(d)	Using demand and supply analysis, account for the difference in average house prices in London and the Yorkshire as shown in Table 1. Price difference likely due to differences in demand and supply. London has a higher average house price because: Higher demand due to higher annual income earned (£79,000) leading to higher purchasing power and higher population (8.5m) leading to higher number of people seeking for lodgings (houses) + Lower supply due to lack of land in the capital (1,572km^2) available for building new houses. Yorkshire has a lower average house price because: Lower demand due to lower annual income earned (£49,000) leading to lower purchasing power and lower population (5.4m) leading to lower number of people seeking for lodgings (houses) + Higher supply due to more land available outside of the capital (15,420km^2) for building new houses. Explain the difference in the Demand Factors – **Income and Demographics (Population Size)** [2m] Explain the difference in the Supply Factor – Price of input → In this case, the **price of land (for building new houses)** is affected by the size of the land area [1m] Link the above explanations to difference in prices. [1m]	[4]
(e)	Extract 4 mentions various policies that the UK government adopts to reduce greenhouse gas emissions in the Power and Industry as well as Buildings sectors. Discuss the effectiveness of any **two** policies that the UK government currently adopts to achieve economic efficiency in resource allocation. **Introduction:** The presence of greenhouse gas emissions (negative externalities) suggests that the free market has failed in the allocation of resources. Hence, the UK government targets to cut emissions by at least 80% from 1990 to 2050 to achieve economic efficiency in resource allocation. Whether the target is achievable or not would depend on the economic policies currently adopted. **Body: Explain how each policy works and assess its effectiveness and limitations** **Power and Industry** Explain how **Carbon Trading with Carbon Price Floor** scheme works.	[6]

- The EU estimated the <u>socially efficient level of emissions and decided on the number of permits</u> to be issued to the big factories and power plants, and they are allowed to pollute up to the permitted level only. If any of the big factories or power plants wants to pollute beyond the permitted level, it can purchase extra permits from others who might not need them. That is, the big factories and power plants can trade these permits among themselves, where the price of the permits is determined by the forces of demand and supply. The <u>total level of emissions produced by all the big factories and power plants will not exceed the level set by the UK government.</u>

Assess its **effectiveness and limitations.**
- The EU government <u>lowers the overall cap on the emissions progressively to give firms time</u> to react (e.g. to cut emission by adopting green technology) but with the intention for the level of emissions to <u>reach the socially efficient level eventually</u>.

Explain how **Transition to a Low-carbon Power Sector** works.
- By transiting to a low-carbon power sector, which uses renewables (such as wind, and solar), nuclear and carbon capture and storage (CCS), the UK government aims to <u>reduce the amount of emission and hence EMC</u>, so that the new market output will be closer to the socially efficient level.

Assess its **effectiveness and limitations.**
- The transition will require massive capital outlays, which will put a strain on the government's budget. (Extract 4, 'Government's support has also been provided……')
- Moreover, CCS is a new and untested technology that might not produce results. Hence, the opportunity cost is high.

Buildings

Explain how **retrofit improvement in the energy efficiency of homes** works.
- By insulating loft and cavity walls and replacing old inefficient boilers, the demand for gas for heating will fall. This policy aims to <u>reduce PMB/ demand</u> to coincide with the PMC at the socially efficient level.

Assess its **effectiveness and limitations**.
- The level of effectiveness <u>depends on the take-up rate</u>. Given that there is no upfront cost for consumers, as "the costs of the measures is paid back over time through electricity bills and payments are supposed to be less than savings through reduced energy bills (the 'Golden Rule')", this creates more incentive for households to take up retrofit improvement.

Conclusion/Evaluation: Provide an **overall stand** on whether the UK government currently adopts the most appropriate economic policies.

Mark Scheme

L3 (5-6)	A well-developed analysis of **TWO** economic policies to achieve economic efficiency. There is good reference to the case material.
	Effectiveness and limitations of policies are well considered.
L2 (3-4)	An analysis of **ONE** economic policy to achieve economic efficiency.
	There is analysis provided on **TWO** economic policies to achieve economic efficiency BUT this analysis is under-developed with a lack of reference to the case material.
	Effectiveness and limitations of policies might not have been considered or considered superficially.
L1 (1-2)	Descriptive answer with minimum link to question.

(f)	Using Extracts 1 and 2, discuss the factors that the UK government should consider in deciding to redevelop the coal industry.	[8]
	Possible factors:	
	1) Comparative Advantage + Impact on Macro Goals If the government decides to redevelop the coal industry, it would have to consider whether the industry would be able to gain comparative advantage in mining coals.	
	According to Extract 2, the UK "sits atop significant coal resources… enough to provide power for 300 years" and used to produce lots of coal in the past. Hence the UK has the **factor endowment in coal and the expertise and she might be able to produce coal at a lower opportunity cost than other countries**. If successful, X increases and M falls significantly (since UK imports more than 75% of its coal requirements – Extract 1) → BOT improves, BOP improves, ceteris paribus. As (X-M) increases, AD would increase leading to increase in national income via the multiplier process. Employment also increases due to rise in the demand for labour as a FOP. (Evidence: Extract 2 "potentially creates thousands of jobs… reduce the UK's balance of trade deficit")	
	However, the UK might not gain comparative advantage in coal production as the competition will be fierce with **cheap suppliers** from Colombia, Russia, India, China, South Africa, and the US (Extract 2).	
	2) Environmental Concern + Resource Allocation: If the government decides to redevelop the coal industry, it would also have to **consider environmental issues.**	
	Coal is "the dirtiest fossil fuel and emits more carbon emissions" (Extract 1). Should the UK redevelop the coal industry and use it as the main source for electricity generation, it will increase the carbon emissions in UK (negative externalities). Explain how **negative externalities result in allocative inefficiency**.	
	However, with the **new CCS technology**, which could enable the coal-fired power station to trap and pipe harmful emissions underground out to under the seabed during the production of electricity (Extract 2), the problem of **negative externalities/ pollution might no longer be an issue**.	
	Evaluation: Even though the CCS technology can reduce the problem of pollution during the production of electricity, it does not help to cut down the **carbon emissions during the extraction of coal**.	
	3) Strategic Reason: "Getting coal off the grid… makes energy more expensive… lose the diversity of the generation mix. Security of supply and affordability have been placed behind carbon emissions target" (Extract 1) → If the UK no longer produces coal, it will need to depend on other countries for the resource, making it **more vulnerable to external changes (possible imported inflation, supply shocks)**. And if UK no longer uses coal to generate electricity, there will not be any alternative source of energy (coal as an alternative) should there be any **supply shocks to the other energy sources**.	

However, given that **many countries produce coal** (Extract 2: Colombia, Russia, India, China, South Africa, and the US), the UK could always turn to other countries should the countries it imports from suffer high inflation or have supply shocks.

Conclusion
The UK government is **unlikely to redevelop the coal industry as the coal industry is unlikely to regain comparative advantage** even though it has significant coal resources.

Or any well-justified conclusion

Mark Scheme

L3 (5-6)	Balanced and well developed economic analysis, based on the case material. At least 2 factors are considered in the discussion. However, to earn top L3 mark, both comparative advantage and environmental concern factors must be included.
L2 (3-4)	Answers tend to be lopsided (i.e. did not consider the drawbacks) or there is insufficient use of economics analysis.
L1 (1-2)	Weak attempt in answering the question requirement. Major conceptual errors were evident.
E2	Provide good synthesis and a reasoned conclusion.
E1	Attempts to synthesize

[Total: 30]

HWA CHONG INSTITUTION
C2 Preliminary Examination 2016
Higher 1 Economics

Case Study Question 2
Suggested Answer

(a)		With reference to Table 2, describe the trend of China's real GDP from 2011 to 2014	[2]
		China's **real GDP** generally rising (1m) at decreasing rate (1m) •	
(b)		Extract 5 suggests that the Chinese are concerned over the formation of real estate bubbles.	
	(i)	Use the concept of circular flow of income to explain how, if "burst of real estate bubbles" (Extract 5) occurs, will affect China's equilibrium national income. 1. If the real estate bubbles were to burst, prices of housing would fall. (1m) 2. Consumers would feel less wealthy OR consumers would have to cut down on expenditure to pay their debts, thus cutting autonomous consumption (1m) 3. Explain how fall in autonomous consumption (a form of injections) result in J<W (disequilibrium) + Adjustment from disequilibrium to equilibrium (3m) 1m – show understanding that there is J<W 1m – Change in Y and hence impact on expenditure and employment 1m – Fall in withdrawals increase until J=W •	[5]
	(ii)	Explain and comment on a policy that China can implement to mitigate the 'downward risk' on its economy (Extract 5) Students need to recognise that the 'downward' risk is the effects of burst of real estate bubble as explained in b(i). Explain one expansionary demand management policy or housing cooling measure (3m) – must link to how it mitigate fall in NY Comment on the policy (relevant evaluation) (2m)	[5]
(c)	(i)	Explain what is meant by the term 'youth unemployment' of country such as Greece. Youth employment refers to a situation where youth (those above legal working agae and under 25) in the labour force (1m) who are willing and able to work but are unable to find employment (1m). •	[2]

	(ii)	Compare the trend of unemployment rate and youth unemployment rate in Eurozone from 2011 to 2014.	[2]
		Similarity – Both unemployment rate and youth unemployment rate generally increase from 2011 to 2014.	
		Difference – youth unemployment rate is consistently higher than that of unemployment rate over the period.	
	(iii)	Using AD/AS analysis, discuss the extent to which youth unemployment in the Eurozone will adversely affect its current and future economic growth.	[6]
		1. <u>Explain how youth unemployment in Eurozone may affect its actual economic growth</u>	
		Loss in production and Income: Loss of jobs brings about reduction in production and income. Scarring effect (where young people may not have a full time stable job and earn lower wages and at greater possibility of unemployment)→ reduces purchasing power → low consumer confidence among the youths (expectations) → fall in (autonomous) consumption → fall in AD	
		Excess labour means the economy is not producing on the boundary of PPC and thus actual growth is affected. The longer youths remain unemployed, the more it will hamper the Eurozone's recovery.	
		Loss in tax revenue which may affect future govt spending: Lack of income of greater proportion of labour force who are unemployed leads to less tax revenue, compounded over a longer period of working life. Leading to less resources for the government to allocate to expenditure. If the government, especially in Eurozone is already running a budget deficit, the loss in tax revenue could possibly lead to a cut in budget spending which in turn exert a further contractionary effect on the economy's actual growth	
		Loss of social stability Unemployment appears to be linked to greater incidence of crime and violence as seen in some Southern Eurozone nations where jobless youth 'lash out violently'. This in turn lowers investors' confidence in the economy and may reduce FDI in eurozone.	
		2. <u>Explain how youth unemployment in Eurozone may affect its Potential Economic Growth</u>	
		Loss in human capital With a long productive worklife ahead of youths, the lack of opportunities when young will hamper future work life and lead to loss of skills and even dropping out of the labour force – quality and quantity of labour will be adversely affected thus - lower potential growth	
		Lack of tax revenues can also affect the ability of governments to invest in infrastructure etc Since FDI and domestic investment may decline→ lower potential growth	
		3. Evaluate the extent of adverse effects of youth unemployment on Eurozone	

The **impact on economic growth is also not evenly spread out** as it seems that Germany and Austria's youth unemployment rate is significantly lower compared to eurozone's youth unemployment.

Mark Scheme

L3 (5-6)	Balanced and well developed economic analysis based on the case material and evident evaluation and judgment.
L2 (3-4)	Answers tend to be lopsided or insufficient use of economics analysis . Should students only explain effects of unemployment in general on economic growth or did not consider actual vs potential growth, consider max of 4m.
L1 (1-2)	Weak attempt in answering the question requirement i.e. did not address youth unemployment and its effects on economic growth of Eurozone. Major conceptual errors were evident.

(d)

A Eurozone recession would have a significant contagion impact on other economies such as Singapore and China through direct and indirect trade relationships.
Extract 6 and 7 explain how Singapore and China attempt to restructure their economies.

Using the data, comment on the effectiveness of China and Singapore's restructuring efforts in mitigating this impact on their economies.

[8]

1. Explain contagion impact

Can impact Sg and China directly through direct trade relationships (Slow growth in Eurozone (see Table 3)) → poor consumer confidence → possible fall in dd for goods and services → fall in DDx from other countries including China and Sg). The extent of the contagion impact depends on the trade relationship between which can be seen in Table 5. It states that the Eurozone is the 2nd most important trading partner of China and the 3rd most important trading partner of Singapore. Ceteris paribus, this implies that China will be more adversely affected.

There is also indirect impact on DDx from China and Sg by other countries as the contagion spreads to other parts of the world.

2. Identify and explain how Singapore and China restructure their economy

Singapore – **Increase Productivity** and to move towards **Creative economy**, from high skilled to even higher skilled industries. Manpower lean – leveraging capital goods for higher productivity and reducing reliance on foreign manpower.
+ The **new competitive advantage** thus lies in the ability to carve out **new markets** and create new markets through the fusion of business, technology and arts. Design, which serves to bring about such a fusion has emerged as the key differentiation strategy for businesses.

China – structuring to boost growth driven by consumption instead of trade ➔ less affected by contagion effects of Eurozone recession

3. <u>Discussion on the effectiveness of China's and Singapore's restructuring efforts in mitigating contagion effect on their economies</u>

China:
Restructuring efforts are incomplete and still on-going. Despite the measures to improve health and pension coverage, and urbanisation, there are still significant obstacles e.g. finding its graduates suitable jobs. Exports (as % of GDP) has declined only gradually as seen in Table 2 and consumption (as % of GDP) only increased marginally from 2011 to 2014. However, C as %GDP in China is back to 36%.

Singapore:
Still very reliant on exports (176.5% of GDP in 2014). Eurozone recession can have global impact and impact Singapore directly and indirectly. Increased productivity from restructuring efforts can mitigate some of the impact.

Synthesis (can vary based on student's analysis):
Based on the overall direction of the restructuring efforts and nature of each economy, China may be better able to weather the storm as they leverage the might of their large national market should their measures mentioned above shows success overtime.
Students can also 'rank' whether Sg or China is more effective in mitigating the contagion impact of eurozone recession

L3 (5-6)	Balanced and well-developed economic analysis on the effectiveness of China's and Singapore's restructing efforts in mitigating contagion effect on their economies , based on the case material.
L2 (3-4)	Lopsided or under-developed analysis with insufficient application of case evidence.
L1 (1-2)	Descriptive answer with minimum link to question.
E1	Attempts to synthesize
E2	Provide good synthesis and a reasoned conclusion.

Essay Question 3
Suggested Answer

3	(a)	Explain, using examples, what is meant by public good and merit good.	[10]
		Explain the TWO Characteristics of Public Good 1) **Non-excludable in consumption** is when it is impossible or prohibitively expensive to exclude **non-payers** from consuming it. For example, once **street lighting** is provided, there is no inexpensive or practical way to restrict the availability of the service to only people who pay for their use. The same can be said for **national defence**. For example, once an army is provided to defend the country, every citizen benefits from its protection regardless of whether they pay for it. 2) **Non-rivalry in consumption** is when the consumption by one does not reduce the **amount available** to others. For example, the use of the **street lighting** by one pedestrian will not reduce the amount of light available to others. The benefit of street lighting can be shared jointly by everyone who happened to be in the vicinity of the street lights. Implication of the characteristics of Public Goods on its provision by the market As a result of the characteristics of **non-excludability**, once a public good is provided, others can free-ride on the good. A **free-rider** is anyone who receives the benefits from a good or service without having to pay for it. Since anyone can enjoy all the benefits of a public good once it is produced without paying for it, no rational consumer motivated by self-interest will reveal his effective demand. There will be **no price signals to indicate consumers preference for such goods**. Hence in the absence of price signal, producers will not supply this good. As a result of the characteristics of non-rivalry, the **marginal cost of providing a public good to an additional consumer is zero**. For example, since joint or collective consumption is possible, once an army is formed, the total cost of defending the country is the same regardless of the number of persons the army has to protect. There is no extra cost involved for defending an additional person. Since the optimal or **allocatively efficient quantity to supply is where P=MC, the efficient price to charge for the use of public good should be zero**. Due to the twin characteristics associated with public goods, it is not possible for free markets to supply such goods profitably because it is neither possible (due to non-excludability in consumption) nor desirable (due to non-rivalry in consumption) for private producers to charge a price for its use. **Without the profit incentive and price signals, the market fails in the provision of public goods**. Hence public goods are provided by the government as **the market cannot allocate resources to produce them**. **Explain what is a Merit Good** Merit Goods are goods or services that have been **deemed by the government as socially desirable** but **underconsumed**.	

Some goods that generate **positive externalities** are deemed as merit goods. For example, education and vaccination.

Market for Vaccines

- The **Private Marginal Cost (PMC)** measures the cost to producers from an additional unit of vaccine produced such as the cost of raw materials, utility bill and wages of workers.
- The **Private Marginal Benefit (PMB)** measures the benefit to consumers from an additional unit of vaccine consumed such as the immunisation from a particular disease or a lower risk of falling ill. However vaccine **consumption** generates **external benefits** to **third parties** who are not part of the production or consumption process.
- For each unit of vaccine consumed, more people will be immunised and third parties who do not immunise themselves will also benefit in the form of lower risk of contracting the illness as there will now be less people who they can potentially contract the illness from. This also positively translates into a healthier and hence more productive workforce for the economy.
- However, the third parties **do not compensate** vaccine consumers for the external benefits they enjoy.
- Hence in this case of a **positive consumption externality**, the vaccine consumers are not concerned about the external benefits to others but only their own private benefits as the external benefits are unpriced by the price mechanism and not included in the **private benefit**s.
- For each **additional** unit of vaccine, the **social marginal benefit (SMB) includes the private marginal benefit (PMB) of the vaccine consumed plus the external marginal benefit (EMB)** to third parties. Hence the actual benefit borne by the society is represented by the SMB, which takes into account the full benefits to society of an extra unit of vaccine. SMB = PMB + EMB.

Student should draw and explain positive externality diagram

- The **socially efficient** quantity of vacinne should be at Q_S where **SMB=SMC**, where the full costs and benefits and costs to society are considered. Q_s is more than the market equilibrium quantity, Q_m where PMB = PMC. Thus there is **underconsumption** of vaccines by the quantity $Q_S - Q_m$
- Area ABC represents the **deadweight welfare loss** due to **underconsumption** of $Q_S - Q_m$.

Conclusion
There is **complete market failure** for public good while there is **partial market failure** for merit good.

Level	Descriptors

		L3	7-10	There is a good explanation of public good and merit good with relevant examples. • The two characteristics of public good are well explained, linking to zero allocation of resources in the market. • The positive consumption externality is well explained, linking to under allocation of resources in the market.	
		L2	5-6	There is explanation of either public good or merit good only. OR There is attempt to explain both public good and merit good but the explanation is underdeveloped.	
		L1	1-4	Descriptive answer lacking in economic analysis. OR Mostly conceptual errors.	

	(b)	Governments in some countries such as Spain are reducing subsidies on healthcare, citing large budget deficit as the reason. Discuss whether the reduction in government subsidies on healthcare is justified.	[15]

Explain how Subsidies work to correct Market Failure using a relevant example

- Government can use **subsidies** to internalise a **positive externality**, which is a market based approach. This approach gives private individuals the freedom of choice in making rational decisions with regard to the best level of consumption that would maximise society's welfare.

  - **Draw and explain a diagram on subsidy to internalise EMB from vaccines consumption**

- The government might give a subsidy to producers corresponding to the **external marginal benefit i.e. subsidy = EMB at Q_S** (distance BD) on each unit of vaccine. This shifts the PMC downwards so that the new PMC, which equals PMC – subsidy, coincides with the PMB at Q_S.
- Hence, the new market equilibrium quantity where PMB = PMC – subsidy, now coincides with the **socially efficient** quantity Q_S, where SMB = SMC.

Thesis: Reduction in government subsidies on healthcare is justified.
- Government may **fail to measure external benefits accurately** and thus end up over-subsidizing health care services. **Allocation of resources is not efficient** as there may be over allocation of resources.
- The government might need to **raise income tax** in future to fund the cost of the subsidies. This will increase the burden of the future generation. Moreover taxation may reduce incentives to work.
  Evaluation: The revenue can be raised via tax on goods with negative externalities.
- Government has **limited funds** available. If the government were to provide subsidies for healthcare, there will be lesser funds available to provide subsidies in other sectors such as education.
  Evaluation: This problem is made worse if the government were to overestimate the EMB at Qs, leading to over allocation of subsides to healthcare.
- Subsidies, if given to producers, may **breed inefficiency** as it reduces the incentive for providers of health care services to stay efficient by finding the lowest cost of production. If the costs keep on rising, the **government would have to incur higher expenditure to fund the subsidies** and this will worsen the government's budget position.

Anti-Thesis: Reduction in government subsidies on healthcare is NOT justified.
- If the **subsidy accurately reflects the external marginal benefit at Qs**, the externality has then been **internalised or priced in**. As the level of consumption would be increased from **Qm to Qs after subsidy** is provided, this prevents the spread of contagious disease.
- In a market economy, the ability of individuals to consumer goods depends on their

income and wealth. The market system will not respond to the needs and wants of those with insufficient economic (dollar) votes to have any impact on market demand. **The market allocates goods based on effective demand**. **Government subsidies will lower the price of healthcare services so that the very low income earners are still able to access healthcare services** such as vaccination.

- **Subsidies are required during some unexpected events**. For instance, during the SARS epidemic, the Singapore government heavily subsidised vaccines and hospitalisation and gives direct provision (subsidise 100%) of some products like masks and thermometers. The Singapore government also provides partial subsidy to patients when they see a doctor for haze-related medical problems. **During such scenarios, the healthcare of the citizens is paramount** so government ought to provide subsides to them, especially the very poor consumers.

Conclusion

Government provides subsidies to healthcare to achieve certain objectives, such as to ensure efficient allocation of resources, to improve equity or to tackle an expected health epidemic. Although for some countries the governments have budget deficit, **reducing the subsidies on healthcare to reduce the deficit is only a short term measure**. If more people are not able to access healthcare services, their **productivity** would be affected and this will **affect the economic growth** in the future

Level		Descriptors
L3	9-11	There is a good explanation of how subsidy works to correct the positive externalities. There is discussion on whether reduction in subsidies is justified or not.
L2	6-8	There is attempt to explain how subsidy works to correct the positive externalities. There is also attempt to provide a discussion on whether reduction in subsidies is justified or not.

OR

There is only discussion on whether reduction in subsidies is justified or not. There is no explanation of how subsidy works to correct the positive externalities. |
| L1 | 1-5 | Descriptive answer lacking in economic analysis.

OR

Mostly conceptual errors. |
| E2 | 3-4 | • Substantiated judgement |
| E1 | 1-2 | • Unsubstantiated judgement OR Largely unsubstantiated judgement |

Essay Question 4
Suggested Answer

4 **(a)** Explain how benefits to the economy can arise from specialisation and trade.

   (b) Discuss whether specialisation and trade will always improve the standard of living in a country.

Part (a)

Suggested Essay Outline

Introduction
- An economy can benefit from specialisation and trade (exchange) and is explained by the law of comparative advantage.
- The Law of Comparative Advantage states that trade or in this question, exchange, can benefit all countries if they specialise in the goods in which they have a comparative advantage in the production of a good, that is, she can produce the good at a lower opportunity cost than another country.

Body
- State the assumptions

Countries	Production of textiles and cars before specialization and trade		Opportunity Cost of producing 1 unit of		Production with: USA: Partial Specialise with 75% resources in cars and 25% in textile Vietnam: Full specialization in textile		Consumption after trade by exchanging 12T for 12C TOT: 1T:1C	
	Textiles	Cars	Textiles	Cars	Textiles	Cars	Textiles	Cars
USA	20	30	3/2 C	2/3 T	10	45	22	33
Vietnam	15	10	2/3 C	3/2 T	30	0	18	12
World	35	40			40	45	40	45

- Before specialization, USA produces 20 units of textiles and 30 units of cars which means it has to give up 3/2 unit of cars for 1 unit of textile or 2/3 unit of textiles for 1 car.
- On the other hand, Vietnam produces 15 units of textiles and 10 units of cars which means it has to give up 2/3 unit of cars for 1 unit of textiles or 3/2 unit of textiles for 1 unit of car.
- This implies that USA and Vietnam have a lower opportunity cost or comparative advantage in producing cars and textiles respectively.
- Assuming USA will have partial specialization in cars using 75% of resources and 25% of resources in textiles while Vietnam goes into full specialization in textiles. Specialisation will

results in mass production and enable the firms and industry to grow and thus enjoy both internal and external economies of scale.
- USA will produce 10 units of textiles and 45 units of cars and Vietnam will produce 30 units of textiles only.
- These countries will agree to trade if the terms of trade lie between: 2/3 cars < 1 textile < 3/2 cars or 2/3 textiles < 1 car < 3/2 textiles. Terms of trade (TOT) measures the rate of exchange of one good or service. The exact terms of trade will depend on the strength of demand and the relative bargaining powers of the countries involved.
- Assuming they agree on the terms of trade of 1 unit of textiles to 1 unit of cars and exchange 12 units of textiles for 12 units of cars.
- After specialization and trade, USA gains 2 and 3 units of textiles and cars respectively and Vietnam gain 3 and 2 units of textiles and cars respectively. The world output also increases by 5 units each for textiles and cars.
- It is clear that after specialization and trade, both USA and Vietnam gain from trade and consume beyond their PPC.

Conclusion
- Although USA has absolute advantage in the production of both Textile and Cars, USA can benefit from specialisation and exchange if she specialises in producing and exporting the good (Cars) with relatively lower opportunity cost compared with Vietnam and import the good (Textile) with relatively higher opportunity cost compared with Vietnam.

Level	Descriptor	Marks
L3	For an explanation which accurately explain how benefits to the economy can arise from specialisation and trade.	7-10
L2	There is attempt to use Theory of Comparative advantage. However, analysis is not well developed.	5-6
L1	Some attempt to answer the question with conceptual errors • Students give benefits of free trade with no reference to CA at all • Some recognition of CA but gave absolute advantage numbers or answer is extremely brief	1-4

(b) Discuss whether specialisation and trade will always improve the standard of living in a country. [15]

Introduction
Define key terms:
- The standard of living refers to the level of material and non-material well-being of an individual or household. The material well-being is measured by the quantities of goods and services consumed while non-material SOL is measured by factors such as the quality of healthcare and education standards, happiness and stress levels.

The extent to which a country's standard of living will improve depends on a few key factors which are both economic and non-economic in nature, which we will discuss in this essay.

Thesis 1: Specialisation and trade will result in greater flows of goods and services and economic growth and hence countries enjoy an improvement in its <u>material standard of living.</u>

Specialisation and trade has led to a rapid expansion of international trade in goods and services. Countries win when they gain market access for their exports due to trade liberalisation. With trade, the demand for the country's exports by the rest of the world increases. This will result in a rise in export earnings. Assuming that the rise in demand for exports is higher than the rise in demand for imports, there will be a rise in net exports causing the aggregate demand to rise.

Explain and draw AD/AS diagram

The rise in real national output, assuming that population is constant, implies that people in the country are better off because it could be that more goods and services have been produced and made available for consumption. Hence more wants are satisfied. The rise in national income and fall in unemployment will result in higher purchasing power of the people.

Thus, with expansion of trade due to trade liberalisation, most exporting countries enjoy a rise in its material standard of living as a result of trade fostering its economic growth and employment.

Optional pt: Specialisation and trade might also result in inflow of foreign direct investment which will result in a rise in future standard of living.

Greater flow of goods and services may result in transfer of technology.

In the long run, the rise in quantity of capital goods due to the rise in FDI will result in a rise in productive capacity. This will result in a rise in the country's LRAS causing the AS curve to shifts from AS_1 to AS_2 rise resulting in a rise in full employment level of real national output from Y_{F1} to Y_{F2}. This results in potential economic growth.

As a result, the country's future living standard can be expected to improve due to the ability to produce more goods and services in the future.

EV: The level of inflow of FDI depends on the country's ability to attract it. Countries whose conditions are not favourable for investments will suffer from an outflow of FDI. Eg. Political instability and poor infrastructure development.

Anti-thesis 1: Specialisation and Trade might result in structural unemployment which will worsen the country's material standard of living.

With **Specialisation and Trade**, large numbers of (mainly low-skilled) workers from China and India enter into the global labour force. This results in the loss of comparative advantage in low-end manufactured goods due to outsourcing of jobs. There will be loss of jobs mainly for low-skilled workers and older workers, thus resulting in structural unemployment due to mismatch of jobs as these workers find it difficult to switch to the sunrise industries due to the lack of skills.

This results in structural unemployment in the country which worsens the SOL.

However, the extent to which a country will suffer from structural unemployment and a fall in material SOL depends on its ability to train workers to take up jobs in the new sunrise industries with the relevant SS- side policies. In Singapore, the government emphasises on continuous upgrading of skills and implemented many training and re-training programmes which increases labour mobility. This enables workers to switch and find new jobs and mitigates the negative impact of structural unemployment that arises from globalisation.

Specialisation and Trade might also cause a country's non-material standard of living to worsen.

Despite the rise in income, due to increase in export earnings and investment, non-material quality of life might deteriorate with more globalisation. The resultant rise in production might increase the level of pollution in a country. For example, forest burning in Indonesia. Despite the rise in FDI in the country which resulted in a rise in income, the Indonesians suffered from the worsening air quality which in turn worsened their non-material standard of living.

The increase in level of output may also mean that workers in some developing countries are working long hours assuming that labour productivity level remains unchanged. This reduces the amount of leisure time reducing quality of life.

Thus there will be a fall in non-material standard of living. The government of the country must therefore intervene by implementing regulations to curb the level of pollution and ensure the welfare of workers is well taken care of in order to lessen these negative impacts. The extent of this negative impact on SOL will is therefore dependent on how the governments of different countries react and prevent pollution from going out of control.

Conclusion
Specialisation and Trade is beneficial because it brings about increased output and income, thereby raising the standard of living of the people. However, in the short run, countries may face some problems like unemployment, pollution and the fall in quality of life. The extent of these impacts also depends on the characteristics and conditions of these countries. Countries may use regulation and supply side policies to address the impacts. This is so that the full benefits of specialisation and trade can be realised while minimising its negative impact.

Level	Descriptors	Marks
L3	• Sound analysis of the impact (both positive & negative) of **Specialisation and Trade** on current, future material SOL and Non-material SOL.	9-11

		Examples given are clear and relevant.	
	•	Examples given are clear and relevant.	
	•	Conclusion is reasonably supported.	
L2	•	Adequate understanding of the impact of **Specialisation and Trade** on standard of living with some recognition of the differing impact on different countries.	6-8
	•	Shows impact on only 1 form of SOL	
L1	•	Splattering of points.	1-5
	•	Very weak response to question, with vague understanding of the impact of globalisation on various aspects of standard of living.	
E2	•	For an evaluative discussion, or one that is supported by rigorous analysis.	3-4
	•	Able to provide a reasonable personal view.	
E1	•	For an unexplained judgment, or one that is not supported by analysis.	1-2