2017 JC2 H1 Econs Prelim Exam

Suggested Answers for Question 3

3	(a)	Explain how the existence of merit goods such as art galleries represent market failure.	[10]
	(b)	Discuss the view that subsidies to provide free entry to art galleries is the best way to achieve efficient allocation of resources.	[15]

a) Explain how the existence of merit goods such as art galleries represent market failure. [10]

Command Word: Explain

Context: Art Galleries

Content: Market failure (Merit Goods)

Intro:

Merit goods are goods that the government feels that the people will under-consume due to poor economic decisions (imperfect information) that they make on their own behalf and that it give rise to positive externalities when consumed.

1: Imperfect Information

Due to imperfect information, consumers may not realise that making visits to art galleries enhances the quality of life and helps them to develop their critical thinking, to cultivate creative problem-solving and to communicate and express themselves effectively. Therefore, they may not visit the art galleries at the socially optimal level. This can shown in the diagram below (Figure 1) where consumers perceived the marginal private benefit to be at MPB perceived which is lower than the actual MPB (MPB actual). Hence, with no government intervention, consumers will only be concerned about MPB perceived and MPC and visit art galleries at Qc which is below the socially optimal level, Qs (where MSC = MSB).



Hence, as a result of under-consumption of visits to art galleries, it result in a deadweight loss of the shaded area as shown in Figure 1 leading to inefficient allocation of resources and thus market failure.

2: Positive Externality

In addition, when merit goods are consumed, it gives rise to positive externalities. When visiting art galleries, consumers are only concerned with the own private benefit (e.g. leisure) and private cost (e.g. entry fee). However, it gives rise to external benefit as well which are the economic benefits to the country. Art galleries provide job opportunities directly and indirectly due to tourists visiting the art galleries and spending in other sectors during their stay in the country.

If there is no government intervention, consumers will only consider their private benefit (MPB) and private cost (MPC) and consume at Qc (refer to Figure 2), ignoring the external benefit (MEB). The presence of external benefit result in the divergence of MSB and MPB and the socially optimal number of visits to the museums is at Qs where MSB cuts MSC. This leads to an under-consumption of visits to art galleries resulting in the presence of deadweight loss as shown by the shaded area shown in Figure 2. Thus, the market has failed as there is under-allocation of resources to the visits of art galleries.



Conclusion:

As the market has failed to allocate resources to the visits of art galleries which is a form of merit goods, it is important that the government intervenes through various ways such as providing subsidies to increase the consumption level to Qs.

Marking Scheme

L3	For a well-developed explanation of how existence of merit goods such as art galleries represent market failure (both positive externality and imperfect information).	7-10m
L2	Underdeveloped explanation of how existence of merit goods such as art galleries represent market failure. Max 6 marks for candidates who only mentioned about positive externality or imperfect information leading to market failure.	5-6m
L1	Descriptive answer lacking in economic analysis and consists of conceptual errors.	1-4m

b) Discuss the view that subsidies to provide free entry to art galleries is the best way to achieve efficient allocation of resources. [15]

Command Word: Discuss

Context: Art Galleries

Content: Subsidies (Free Entry) to solve market failure arising from the presence of merit goods, alternative policies to subsidies

Intro:

- Presence of merit goods leads to market failure due to imperfect information and positive externality.
- To achieve efficient allocation of resources, government has to implement policies to encourage more consumers to visit art galleries.

Body:

1: Thesis \rightarrow Subsidies to provide free entry to art galleries is one of the best ways to achieve efficient allocation of resources

• By giving subsidies to provide free entry, consumers will consume up to the point where MPB equates to zero as the cost to them is zero.



Figure 3

- With reference to Figure 3, when MPB = 0, consumers will now consume at Qs level which is the socially optimal level of consumption. Thus, the market has achieved efficient allocation of resources.
- Nevertheless, this is the best method only if MPB = 0 at the Qs level.

2: Anti-thesis: Limitations of subsidies to provide free entry

• As mentioned, it is only the best method if MPB = 0 at Qs level. However, when services are provided for free, consumers tend to overconsume the goods and hence, they will visit the art galleries beyond the Qs level as shown in figure 4.



- As Qp > Qs, there is overconsumption of the visits to art galleries and it will create a new deadweight loss of area B as shown in figure 4. The deadweight loss may be even larger than the initial deadweight loss (when there is no government intervention) if Qp is significantly larger than Qs.
- Furthermore, the government incurs a large opportunity costs as the large sum of money that is used to provide free entry can be spent in other areas such as healthcare and education services.

- The government may even experience budget deficit if it has to provide entrance to art galleries for free for a long period of time so as to increase consumption.
- Also, by providing it for free may only solve part of the problem due to the presence of positive externality. Providing it for free does not tackle the problem with regard to imperfect information. There may be free entrance but if consumers do not think that it's beneficial for them, the increase in visiting the museums may be limited.
- Therefore, subsidies to provide free entry to art galleries is not the best way to achieve efficient allocation of resources

3: Anti-thesis: Alternative policies should be implemented instead

Alternative policy 1: Partial Subsidy

- Instead of providing it for free, the government should implement partial subsidy. If the government has sufficient information about the external benefit, they can equate the amount of subsidy to be the MEB value instead of providing it for free to avoid overconsumption.
- Hence, consumers' MPC will now fall by the MEB value to MPC₁ as shown in figure 5 and it will intersect MPB at Qs level. Thus, the deadweight loss is reduced and efficient allocation of resources is achieved.
- Government is also able to adjust the level subsidy over time to ensure the visit to art galleries to be at Qs level. Therefore, this may be a better alternative to free provision.



Figure 5

- However, the government must have sufficient information and the ability to accurately to measure the value of MEB. Government may over or under subsidise due to imperfect information and the deadweight loss may not be reduced.
- Providing partial subsidy also incurs an opportunity cost and it doesn't tackle the issue of consumers having imperfect information to make the right decision.

Alternative policy 2: Education

- To solve the problem of imperfect information, government may want to provide the public with information on the various exhibitions showcased by the various art galleries so as to increase the number of visits.
- Also, the government can include visits to art galleries as part of the education curriculum in schools and highlight the importance of the arts to the students from a young age so that they can understand and appreciate the importance of the arts.
- However, the results are uncertain. Even if consumers understand the benefits of visiting art galleries, they may still choose not to visit the art galleries for various reasons such as having to pay entrance fee which may be quite high for some art galleries.

Conclusion:

Whether subsidies to provide free entry to art galleries is the best method to achieve efficient allocation of resources would depend on

- the financial capability of the government to provide it for free
- whether the government is able to estimate the value of MEB accurately
- whether the deadweight loss of overconsumption will be large if there is free provision
- whether the issue of the presence of positive externality or imperfect information is a more pressing problem to solve.

If the deadweight loss due to overconsumption as a result of free provision is limited and that the government has the financial capability to provide it for free, then it would be perhaps the best method among all the available policies.

In addition, the problem of imperfect information is not solved even with free provision. Thus, the government has to implement a mixture of policies such as partial subsidy and education to ensure that both the issue of positive externality and imperfect information will be tackled.

Marking Scheme

L3	For a well-developed explanation of how subsidies to provide free entry to art galleries can achieve efficient allocation of resources with limitations provided. Alternative policies are also provided and well explained. *One of the alternative policies explained must focus on reducing imperfect information.	9-11m
L2	An unclear explanation on whether subsidies to provide free entry to art galleries and an alternative policy can help achieve efficient allocation of resources. Max of 7 marks for a good explanation on how free entry will solve market failure with limitations explained.	6-8m
L1	Descriptive answer lacking in economic analysis.	1-5m

E2	•	Substantiated judgement	3-4m
E1	•	Unsubstantiated judgement	1-2m