Instructions to Candidates

Candidates should answer all questions. You will need a calculator and pen for this paper.

Further Information

The purpose of this paper is to assess your ability to extract data, use basic mathematical skills to analyse data and to interpret and evaluate results. You are not expected to have studied economics before taking this paper. Therefore, applicable theory is included where appropriate.
The changing face of fast-food in the United States of America (USA)

For some time, fast-food businesses have been under threat from health experts who have regularly accused them of selling food which makes people fat. Critics also complain that is wrong for McDonald’s, whose golden arches symbolise calories excess, to be allowed to sponsor sporting events such as the 2010 World Cup in South Africa and the 2012 London Olympics. Fast-food firms have learned to cope with such criticism - perhaps not for much longer though as they face growing pressure from government regulators and others who are concerned about global health issues.

Some fast-food chains have coped with recession better than others. The traditionally held view is that when consumers need to cut spending, they trade down to cheap meals such as Big Macs, Whoppers and KFC. Such outlets have been picking up business from more expensive restaurants. This has been particularly true in the USA, the home of fast-food, with discounts and promotions such as the $1 menu.

The recession has had different effects on fast-food chains in different countries. In the USA, where average incomes fell by 2% in 2009, sales of fast-food showed no change on their 2008 level - but in some markets like Japan, sales fell by 2% when incomes fell by 1% in 2009.

Not all fast-food companies have had the same experience. McDonald’s in the USA, for example, increased its spend on advertising at a time when competitors were cutting back and as a result sales increased. One of the biggest losers has been its rival, Burger King. During the recession it kept some of its prices deliberately low hoping that customers would be persuaded to buy more expensive items once them reached the counter. Despite $1 promotions (such as burgers reduced to that price), demand for Burger King’s products in the USA fell in 2009. More worrying for the company has been the fact that this so-called ‘value’ menu has accounted for an increasing percentage of sales.

Due to this experience, companies such as Burger King are rethinking their pricing policies by introducing higher priced items to entice customers away from the $1 specials. For example, the company has now introduced barbecue pork ribs which sell at $7 for eight ribs, a far cry from its $1 offering in terms of both price and quality.

But what about America’s growing waistlines? In 2010, the government passed a law which requires all food chains with 20 or more outlets to put the calorie content of items they serve in a prominent place on the menu. Furthermore, a recent proposal from the state of California is to ban McDonald’s from including plastic toys in its high calories ‘Happy Meals’. Fast-food companies are providing more healthy options, but all are very concerned about the growing range of regulations that are being force upon them.
Part 1  14 marks

1. **Factors of production** are resources that you need in order to produce a good or a service. These could include land (natural and semi-manufactured resources), labour (people), capital (machinery) or entrepreneurial expertise (owners of businesses).

In the case of fast food, state and explain two factors of production which are necessary for the sale of fast food.  
(4 marks)

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2. **Consumer surplus** is defined as the extra benefit that a consumer receives from purchasing a good or service at a price lower than they would have been willing to pay for it. A demand diagram illustrates how much consumers are willing to pay for a good or service at each price. The coloured area is the original surplus enjoyed by consumers from paying $2.

![Demand for Burger King Burgers](image)

Using the diagram below, **explain** and **illustrate** how consumer surplus and quantity demanded would have been affected by Burger King’s decision to reduce the price of its burgers to just $1. (4 marks)
Part 1 continued

2. Consumer surplus, cont

![Diagram of consumer surplus]

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(2 marks)
3. Several factors determine how much we demand of certain goods at any price level. These are referred to as the Conditions of Demand. They are a change in income; change in consumer tastes and preferences; change in the price of another good or change in consumer expectations.

“Some fast-food chains have coped well recession better than others. The traditionally held view is that when consumers need to cut spending, they trade down to cheap meals such as Big Macs, Whoppers and KFC. Such outlets have been picking up business from more expensive restaurants.” (lines 8-11).

Using the information from the case study, state and explain two possible reasons for the increase in demand for fast-food items at a time of recession. (6 marks)

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Part 2 18 Marks

4. The Demand diagrams illustrates consumers’ willingness to purchase a good or service at any price and the Supply diagram illustrates producers’ willingness to supply at any price level.

Assuming no change in supply, illustrate and explain using demand and supply diagrams the contrasting experiences of McDonald’s and Burger King in the USA in 2009 (lines 17 – 24) and comment on why their experiences might be different (provide two different reasons). (6 marks)

Change in Condition of Demand Solution

![Demand and Supply Diagrams]

(2 marks)

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Part 2 continued
5. In general, consumers will consume more ‘normal goods’, goods they normally buy, when income rise and less of a good they consider ‘inferior’. **Elasticity of Demand** is a measure of the sensitivity of consumer demand to a change in income.

We can determine the view of the consumer toward the good or service and also how elastic (responsive) or inelastic (non-responses) demand for a good is to a change in income by looking at Income Elasticity of Demand (YED) figures provided which are referred to as coefficients.

The equation for calculating YED is

\[
YED = \frac{\% \text{ Change in quantity demanded}}{\% \text{ Change in income}}
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<table>
<thead>
<tr>
<th>% Change in quantity demanded</th>
<th>% Change in income</th>
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<tbody>
<tr>
<td>4% rose</td>
<td>-2 Inferior and Elastic</td>
</tr>
<tr>
<td>2% fell</td>
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</tbody>
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If the figure is positive, the product is viewed as a normal good and if negative an inferior good. If the figure calculated is less than 1 or a decimal, then the consumer demand is less responsive or inelastic to a change in income. This may because it’s a basic good and they don’t need much more of it. If the figure calculated is greater than 1, then consumer demand is more elastic or responsive to a change in income, perhaps because the consumer views the good as a bit of a luxury.

**(5a) Compare** the income elasticity of demand figures for fast-food in the USA and Japan in 2009 (lines 13 to 16). Your answer should include relevant calculations for each country and compare the meaning of the sign and the significance of the size of the figure in two different ways. **(6 marks)**

**Calculations here:**

(2 marks)
Part 2 continued

Commentary here:

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(5b) Comment on the *business significance of the figures* you have calculated in part (5a).
What do the estimates suggest about the view of fast food in the two countries; What impact do the estimates suggest the recession will have on the fast food industry in each country; what implications might there be for the economies in terms of unemployment based on the estimates. (6 marks)

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(2 marks)

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(2 marks)
Part 3 18 marks

6. Market Failure is when the market fails to allocate resources efficiently. Consumers make choices about how they allocate their scarce resources based on the personal benefit they receive from consuming a good or service. Sometimes, their choices create external costs, costs that are imposed on 3rd parties who are not part of their decision process. These goods are called demerit goods. If those external costs were considered, less would be consumed of that good or service. These costs are referred to as negative externalities.

Sometimes the government intervenes to change people’s behaviour by providing information about the negative effects of their consumption (information failure), or imposes a tax that raises the price of the good so less is produced and consumed (internalising the externality in the price mechanism) or buy passing regulations which limit consumption, production, or any other aspect of the process to reduce or eliminate the externalities.

Question: Discuss the extent to which regulations alone can be used to correct for the market failure associated with the sale of fast food (Lines 29 to 34).

Guidance:

At a minimum, discuss the pros and cons of regulations and explain how they might or might not correct for the market failure indicated in the article.

Contrast with how other forms of intervention might work to reduce the incidence of market failure, like taxing fast food, or implementing minimum price.

Then come to a supported conclusion as to whether they can reasonably be expected to work alone or need to work alongside other measures. Explain your reasoning. (18 marks)