3	**QS8**: Make calculations of elasticity and interpret the result **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms	**The only correct answer is C** **A** is not correct because the PED value for diesel is the only type of car whose demand is inelastic **B** is not correct because the demand for petrol and electric cars is elastic **D** is not correct because the demand for electric cars is elastic so increasing the price will result in a decrease in total revenue	**(1)**

1	**QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms	**The only correct answer is C** **A** is not correct because this occurs when there is increasing marginal utility **B** is not correct because diminishing marginal utility is not related to the supply curve **D** is not correct because diminishing marginal utility means the utility will rise at a slower rate as more of the product is consumed	**(1)**

3	**QS8**: Make calculations of elasticity and interpret the result **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms	**The only correct answer is B** **A** is not correct because the demand for the railway tickets in Guadalajara is price inelastic **C** is not correct because an increase in the price of railway tickets in Monterrey will increase total revenue **D** is not correct because there is no data on income provided	**(1)**

Question	Explain how the above table may be used to illustrate the concept of diminishing marginal utility. Use the last column in the table to show your workings. Answer	Mark
11	**Knowledge 1, Application 1, Analysis 2** Quantitative skills assessed: **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** 1 mark for defining diminishing marginal utility / marginal utility • Diminishing marginal utility is where as a person increases consumption of a product, there is a decline in the marginal utility that person derives from consuming each additional unit of that product • Marginal utility is the change in utility after an increase in consumption of a good **(1)** **Application** 1 mark for the following table completed, at least showing where diminishing marginal utility occurs	

Number of drinks	Total utility	Marginal utility
1	15	-
2	32	17
3	52	20
4	73	21
5	85	12
6	90	5

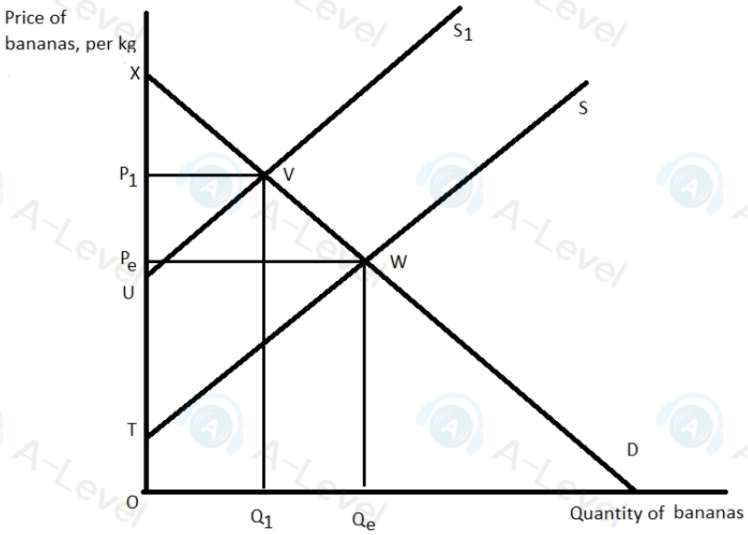
Analysis

Up to 2 marks for likely impact

- Luca experiences increasing marginal utility when increasing consumption from 1 to 2 drinks/ 2 to 3 drinks/ 3 to 4 drinks/ as the number of drinks moves from 1 to 4 the marginal utility increases from 17 to 21 **(1)**
- Diminishing marginal utility starts when he moves from 4 to 5 drinks **(1)** marginal utility falls from 21 to 12/ as consumption increases from 5 to 6 marginal utility falls from 12 to 5/ as the number of drinks moves from 4 to 6 the marginal utility decreases from 21 to 5 **(1)**

(4)

Question	*Ceteris paribus*, calculate the price elasticity of demand for gas from British Gas. Show your workings. **Answer**	Mark
10	**Knowledge 1, Application 3** Quantitative skills assessed: **QS8:** Make calculations of elasticity and interpret the result. **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** 1 mark for definition/the formula for price elasticity of demand $\frac{\%\text{ change in quantity demanded}}{\%\text{ change in price}}$ **OR** 1 mark for identifying that the good has relatively price inelastic demand/The PED is inelastic as a fall in price results in a smaller percentage change in quantity demanded **(1)** **Application** Up to 3 marks for calculations: • Original quantity 17 000 000 + 350 000 = 17 350 000 **(1)** • Change in quantity ÷ original quantity x 100 -350 000 ÷ 17 350 000 x 100 = -2.017% **(1)** $\frac{\%\text{ change in quantity demanded}}{\%\text{ change in price}}$ • - 2.017 ÷ 22 = -0.092 **(1)** **NB: if correct answer (e.g. -0.09168182) is given, award full marks regardless of working.** **NB: award 3 marks if negative sign is omitted/percentage sign added to final answer** **NB: award 3 marks if negative sign included but error in calculation**	**(4)**

Question	Between January 2020 and May 2020 the price of bananas charged by retailers in the USA increased from $1.17 to $1.30 per kg. This was mainly caused by increased costs of transportation from banana growers to markets in North America. Explain the likely impact of this change in price on consumer surplus. Illustrate your answer with a diagram. **Answer**	**Mark**
11	**Knowledge 1, Application 1, Analysis 2** Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **Knowledge** 1 mark for defining consumer surplus • Consumer surplus is the difference between the price which consumers are willing to pay and the market price/gap between the equilibrium price and the demand curve **(1)** **Application** 1 mark for the following diagram, showing the correct shift in supply  **Analysis** Up to 2 marks for likely impact on consumer surplus • Consumer surplus is originally P_eWX **(1)** • Consumer surplus decreases **(1)** to P_1VX **(1)** • Consumer surplus decreases **(1)** by P_eP_1VW **(1)**	**(4)**

Question Number	In September 2017, Centrica increased the price of gas and electricity by 12.5%. Before the price rise Centrica had 12 800 000 customers but this fell by 800 000 after the price increase. Ceteris paribus, calculate the price elasticity of demand for gas and electricity from Centrica. Show your workings. Answer	Mark
10	**Knowledge 1, Application 3** Quantitative skills assessed: **QS8:** Make and interpret calculations of elasticity. **Knowledge** • 1 mark for the formula for price elasticity of demand: % change in quantity demanded / % change in price **(1)** **OR** • 1 mark for identifying that the good is relatively price inelastic. • The demand for Centrica's gas and electricity is price inelastic because the percentage change in price is greater than the percentage change in quantity demanded. **Application** Up to 3 marks for calculations: • Change in quantity ÷ original quantity -800 000 ÷ 12 800 000 x 100= -6.25% **(1)** • % Change in quantity ÷ % change in price -6.25%/12.5% **(1)** = -0.5 **(1)** **NB: if correct answer (-0.5) is given, award full marks regardless of working**	**(4)**