**7. PED and YED Mark: /17**

1. Calculate the price elasticity of demand for Samsung’s Galaxy smartphone if a 12% increase in price leads to a fall in sales of 3%. /3 marks

Percentage Change in Quantity Demanded = - 3% = **- 0.25**

Percentage Change in Price + 12%

1. Samsung sold 83.2million phones in the first quarter of 2015. Assuming the price elasticity of demand for Samsung phones is -0.6, calculate the change in demand if it reduced price by 10%. /5 marks

Percentage Change in Quantity Demanded = -0.6

-10%

-0.6 x -10% = 6% Change in Quantity Demanded

So, Samsung sales are 83 200 000 x 1.06 = 88 192 000

So, the change in sales is 88 192 000 – 83 200 000 = **4 992 000**

1. Calculate the income elasticity of demand for Samsung phones if consumers’ experience an increase in income of 2% and sales rise by 7%. /3 marks

Percentage Change in Quantity Demanded = + 7% = **+ 3.5**

Percentage Change in Income + 2%

1. Calculate the price elasticity of demand for Samsung smartphones if an increase in price from £449 to £479 leads to a fall in quantity demanded from 83.2 million to 79.4 million. /6 marks

Percentage Change in Quantity Demanded = PED

Percentage Change in Price

Percentage change in Quantity Demanded = (83.2m – 79.4m) x 100 = -4.57%

83.2m

Percentage change in Price = (£479 – £449) x 100 = 6.68%

£449

Percentage Change in Quantity Demanded = \_-4.57% = **-0.68**

Percentage Change in Price 6.68%