Write your name here Surname	Other nam	nes
Pearson Edexcel Level 3 GCE	Centre Number	Candidate Number
Advanced Subsidiar Paper 2: The wider 6	r y	nment
Monday 23 May 2016 – Mo Time: 1 hour 30 minutes	rning	Paper Reference 8EB0/02

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions in Sections A, B and C.
- Answer the questions in the spaces provided
 - there may be more space than you need.

Information

- The total mark for this paper is 80.
- The marks for **each** question are shown in brackets
 - use this as a guide as to how much time to spend on each question.
- Calculators may be used.

Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ▶



Answer ALL questions.

SECTION A

Read the following extracts (A and B) before answering Question 1.

Write your answers in the spaces provided.

Extract A

India's Income per Capita (Rupees) 2011-2015

2011–2012	64 316
2012–2013	71 593
2013–2014	80 388
2014–2015	88 533

(Source: adapted from: www.business-standard.com http://www.business-standard.com/article/pti-stories/per-capita-income-rises-37-to-rs-88-533-in-last-4-yrs-govt-115022600685_1.html)

Extract B

Ford to triple exports from India with new \$1bn plant

The Indian market, already the world's sixth largest, is predicted to grow rapidly. While sales rose by just over 2%, in 2015, industry experts expect that to accelerate to 6–8% in the next fiscal year. *Ford* expects its car sales in India to more than double by 2020.

Smaller cars are key to *Ford*'s efforts to compete in Asia, and particularly in India, where a growing urban population means compact models account for about one in every two passenger cars and utility vehicles sold. *Ford* has struggled to increase sales in India, amid a sluggish recovery and tough competition from established Japanese car manufacturers such as *Maruti Suzuki* and *Honda Motor Company*. In 2014 *Ford* sold 77,140 vehicles in India, down from 80,431 in 2013, while exports nearly doubled to 76,981 units over the same period.

Ford plans to triple exports from India with a \$1bn plant that will be one of its most capital intensive in Asia. The new factory, in the western state of Gujarat, will nearly double Ford's production capacity in India to 610,000 engines and 440,000 vehicles a year. It will make engines and compact cars such as the EcoSport, a small SUV. "India is very cost competitive, which is important, particularly for small vehicles," Ford Chief Executive Mark Fields told reporters at the factory opening.

India's Prime Minister Narendra Modi has sought to encourage manufacturing in a drive to boost jobs in a country where a million people join the workforce every month. The government has already relaxed rules for foreign investors and has promised to reduce bureaucracy, which has long frustrated overseas companies. The manufacturing push comes at a time when many global companies are seeking an alternative production location to China, where costs are rising.

(Source: adapted from http://www.reuters.com/article/2015/03/26/us-ford-motor-india-plant-idUSKBN0MM0FE20150326)



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1	(a) What is meant by the term 'capital intensive'?	(2)
	(b) Calculate, to 2 decimal places, the percentage change in India's income per capita from 2011 to 2015 (Extract A). You are advised to show your working.	(4)



(c) Using Extract A, explain one impact on households in India of the changes in income per capita.	
	(4)

(d) Discuss the possible benefits to <i>Ford</i> of manufacturing cars in India.	(8)



(e) Assess the likely impact on the Indian economy of increased globalisation.	(12)

TOTAL EOD SECTION A - 20 MADES
(Total for Question 1 = 30 marks)

SECTION B

Read the following extract (C) before answering Question 2.

Write your answers in the spaces provided.

Extract C

Lightbulb moment as first mass market graphene product goes live

The first mass market product made with the 'miracle material' graphene is about to go on sale: a lightbulb. The invention is a dimmable LED lightbulb that can cut energy costs by at least 10% and last for several years. Its developers at Manchester University say it is within months of going on sale. The lightbulb copies the classic design of the inventor Thomas Edison, but its filament has a coating of graphene, an atom-thick layer of carbon that is stronger than steel and conducts heat and electricity efficiently. Current dimmable LED bulbs cost £15 or more, but the price of the new lightbulb will be lower.

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Graphene Lighting is a company owned partly by Manchester University and partly by an unnamed commercial investor and it will manufacture the new lightbulb. Prof Colin Bailey, a director, said: "People are amazed at just how quickly we have managed to take it to market. Sometimes it takes 20 years to get a new discovery out there." Graphene was first isolated at Manchester University in 2004 by Sir Andre Geim and Sir Kostya Novoselov, who won the Nobel Prize for this work.

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George Osborne, the UK Chancellor, opened the £61m National Graphene Institute in Manchester. The government put £38m towards setting up the Institute along with £120m from abroad, some of which came from the EU. The Institute allows 200 researchers and 35 companies to work together on projects.

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It is still difficult to manufacture graphene in large quantities although a number of companies are trying. One is working on false teeth mounted on a graphene-coated bridge. The tennis equipment maker *Head* has integrated it in a carbon fibre racket.

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Graphene is also likely to transform mobile phones, cameras and wearable technology, as it is strong, durable and absorbs light as energy, which should allow for extended battery life for a range of products. One area that graphene could revolutionise is medicine. The rise of nanotechnology will allow it to be used in treatments for cancer and conditions such as Parkinson's disease.

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However, Sir Kostya said that niche applications were needed to prove its uses first, "It is very hard to bring a new material to market", he said.

(Source: adapted from: http://www.ft.com/cms/s/0/3bcfbbee-d3ae-11e4-a9d3-00144feab7de.html?siteedition=uk#axzz3VrtW62S0)



The price elasticity of demand for the new graphene lightbulbs is estimated to be -0.8 and they will be priced at £10 each. Calculate the percentage change in quantity demanded following a £5 increase in price. You are advised to show your working.	2)
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	4)



(c) Explain one factor that may influence the price elasticity of demand for the graphene lightbulbs.	
graphene lightisaliss.	(4)

(d) Discuss the possible benefits of online retailing for firms such as <i>Graphene Lighting</i> .	(8)



(e) Many firms are developing new products that use graphene. Assess the importance to these firms of research and development (R&D) in	
gaining a competitive advantage. (12)	

(Total for Question 2 = 30 marks)
(lotal for Question $2 = 30 \text{ marks}$)
(10tal for Question 2 – 50 marks)

TOTAL FOR SECTION B = 30 MARKS

SECTION C

Read the following extract (D) before answering Question 3.

Write your answer in the space provided.

Extract D

Mark Carney: next interest rate move will be up, not down

Britain's record low inflation rate is unlikely to force the Bank of England to cut rates below their already rock-bottom levels, its Governor has said. Mark Carney said the Bank's next move in interest rates would be an increase rather than a cut, putting him at loggerheads with his Chief Economist, Andrew Haldane. "We're still in a position where our message is . . . that the next move in interest rates is going to be up," Mr Carney said during a panel discussion at a Bundesbank conference in Frankfurt.

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On Friday, one of the Bank's Deputy Governors, Ben Broadbent, also played down the sharp fall in inflation, which touched 0% in February 2015. He said Britain was unlikely to suffer from a long period of deflation. He added that arguments that deflation in the UK could push people to delay purchases were simplistic and even "misleading" and warned against "overstating the risks" of low inflation.

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The current bout of low inflation is driven largely by a collapse in the oil price, which has slumped from a peak of \$110 per barrel in June 2014 to below \$60 in March 2015. Other factors, including a ferocious supermarket price war, have also contributed. Mr Broadbent said this was likely to be temporary, with the halving in the oil price since June 2014 helping to boost real incomes.

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"While low inflation is not likely to continue for long its effects on demand and output have been positive and not negative," Mr Broadbent said in a speech in London. "The fall in inflation has been driven not by the declining value of what we sell, including wages . . . but by a steep fall in the real price of something we buy."

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Mr Broadbent said there was already evidence that falling food prices and petrol costs had fed through to spending and household confidence. Real household consumption rose at its fastest pace for seven years in 2014, he said.

(Source: adapted from: http://www.telegraph.co.uk/finance/mark-carney/11499411/Mark-Carney-next-interest-rate-move-will-be-up-not-down.html)



		(20)



(Total for Question 3 = 20 marks)	
(10441101 Question 5 – 20 mains)	
TOTAL FOR SECTION C = 20 MARKS	

TOTAL FOR PAPER = 80 MARKS



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