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| Centre No. | | | | | Paper Reference | | | | | Surname | Initial(s) | |
| Candidate No. | | | | | 1 | 1 | 7 | 1 | / | 1 | F | Signature |

Paper Reference(s)

1171/1F

Edexcel GCSE

Business Studies & Economics

(Nuffield-BP)

Paper 1F – Problem Solving

Foundation Tier

Tuesday 9 June 2009 – Afternoon

Time: 1 hour 15 minutes

Examiner's use only

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Team Leader's use only

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| Total | |

Materials required for examination

Nil

Items included with question papers

Nil

Instructions to Candidates

In the boxes above, write your centre number, candidate number, your surname, initial(s) and signature. The paper reference is shown at the top of this page. Check that you have the correct question paper. **Answer ALL the questions in Section A and ALL parts of the question in Section B.** Your answers to Section A and Section B must be written in the spaces provided in this question paper. Show all the steps in any calculations and state the units. Do not use pencil. Use blue or black ink.

Information for Candidates

The marks for individual questions and the parts of questions are shown in round brackets: e.g. (2). There are 7 questions in this question paper. The total mark for this paper is 100. There are 16 pages in this question paper. Any blank pages are indicated. Credit will be given for the use of recent examples, where relevant and appropriate. You may use a calculator. Quality of Written Communication will be assessed throughout this question paper.

Advice to Candidates

You are advised to spend the first fifteen minutes reading the question paper. You are reminded of the importance of clear English and careful presentation in your answers.

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Turn over



Evidence A:

Airbus introduces its new 'superjumbo'

In October 2007 Airbus (a European aeroplane manufacturer) officially launched its new plane, the A380, the so-called 'super jumbo'. Airbus hopes that the bigger size of the A380 will give it a competitive advantage over its main rival, Boeing's 747.



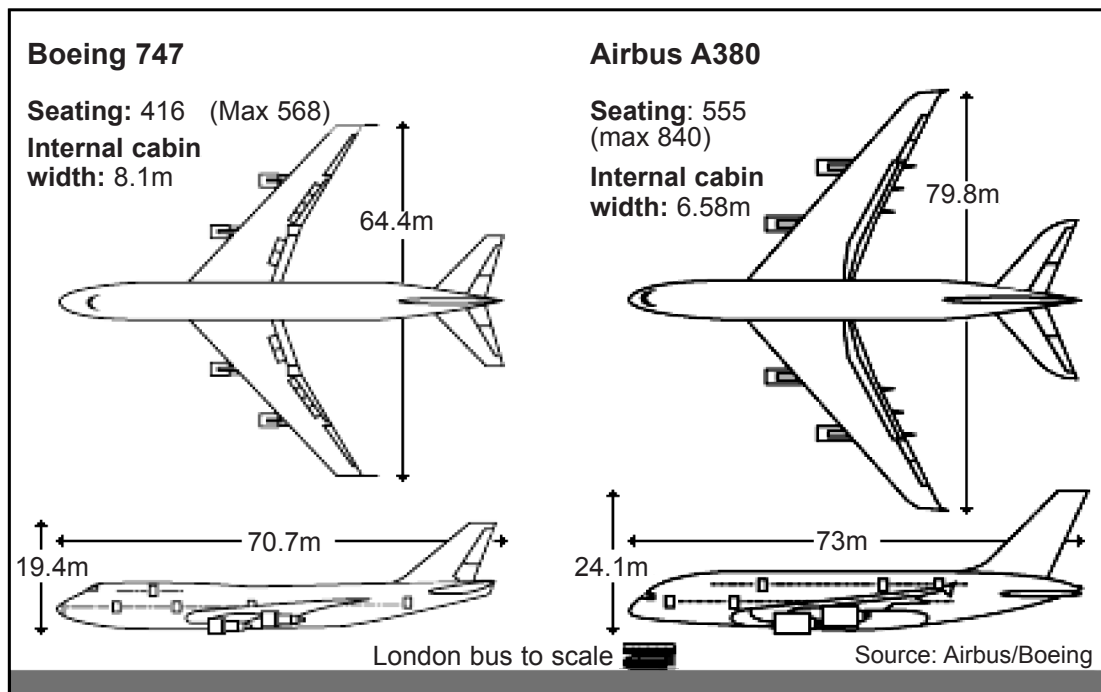
The main customers for Airbus and Boeing aeroplanes are large airlines, such as British Airways.

A main objective of both manufacturers is to produce aircraft that will appeal to the main airlines. They do this by researching and developing new products and technologies.

Source: adapted from http://www.airbus.com/store/photolibrary/EVENTS/CEREMONY/att00008734/media_object_image_lowres_A380_certification3_mr.jpg

Evidence B:

Comparing the Boeing 747 with the Airbus A380



Source: adapted from <http://larsholst.info/blog/2005/01/20/airbus-a380-vs-boeing-747/>



Comparison summary

| | Boeing 747 | Airbus A380 |
|---|-------------------|--------------------|
| Purchase price | \$250 million | \$300 million |
| Seating (maximum) | 568 | 840 |
| Cruise speed | 902 km per hour | 907 km per hour |
| Range (how far the plane can fly with maximum fuel) | 14,800 km | 14,205 km |

A380 confirmed quietest long range aircraft in the skies

- A report by the European Aviation Safety Agency in November 2007 confirmed that the Airbus A380 was one of the quietest aircraft in the skies. This is important for people who live close to airports.

Fuel Efficiency

- Airbus claims that the A380 uses 20% less fuel per passenger than any other long range aircraft.

Source: adapted from http://www.airbus.com/en/presscentre/pressrelease/pressreleases_items/07_11_21_quietest_long_range_aircraft.html – <http://portal.aircraft-info.net/article8.html>

Evidence C:

Airbus will need \$78 billion of orders to break even on A380

AIRBUS needs to win orders worth approximately \$78 billion before its A380 superjumbo project breaks even.

Airbus needs to sell 420 aircraft to reach its break-even point. Last year it had forecast that it would need to sell 270 aircraft to break even.

Airbus said that increased cost and compensation payments for delays in delivering orders had caused this change in the break-even point, after which it becomes profitable.

The company has so far received orders for 159 of the double-decker aircraft. It must now sell a further 261 before it makes a profit on the project.

Source: <http://business.timesonline> (20 October 2007) by David Robertson



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Evidence D:

Airbus wins huge Emirates order

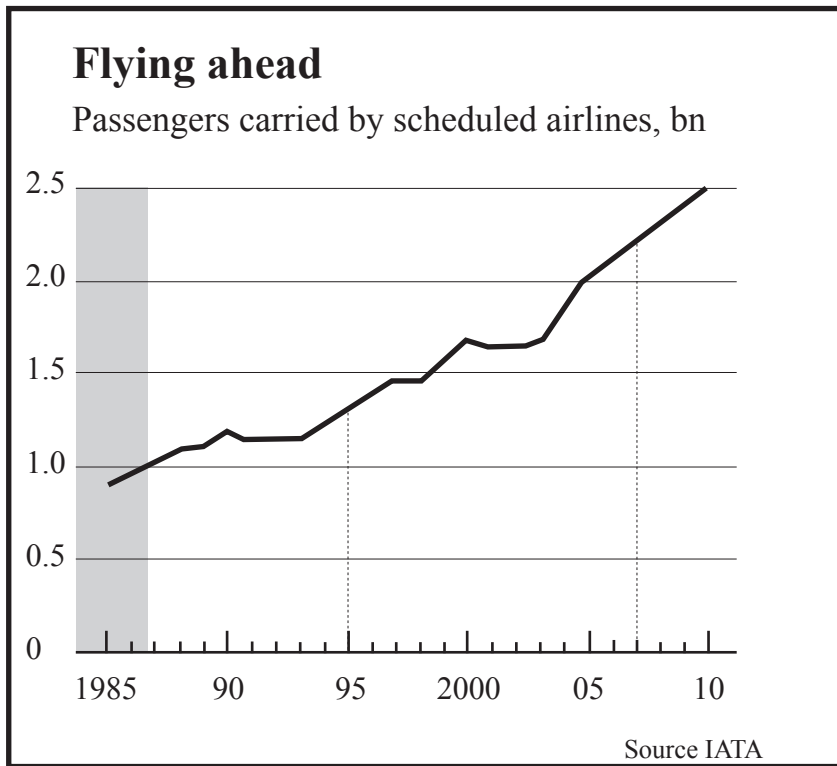
Airbus and Boeing are in competition with each other. Both companies produce different types of aircraft to meet different markets.

The Dubai-based airline Emirates has chosen to buy aircraft from Airbus. The sale of aircraft to Emirates will be worth \$35 billion to Airbus. Rising crude oil prices help increase demand for more fuel efficient aeroplanes like the A380.

Source: adapted from International Herald Tribune, 11 November 2007

Evidence E:

Passenger numbers flying high. The chart shows the total number of passengers carried by airlines each year.



Source: adapted from http://www.economist.com/business/displaystory.cfm?story_id=9944806



Evidence F:

As air travel continues to grow in popularity, so has the amount of opposition to this particular type of transport. A number of pressure groups are highlighting the environmental damage which air travel can cause. Greenpeace is one such pressure group.

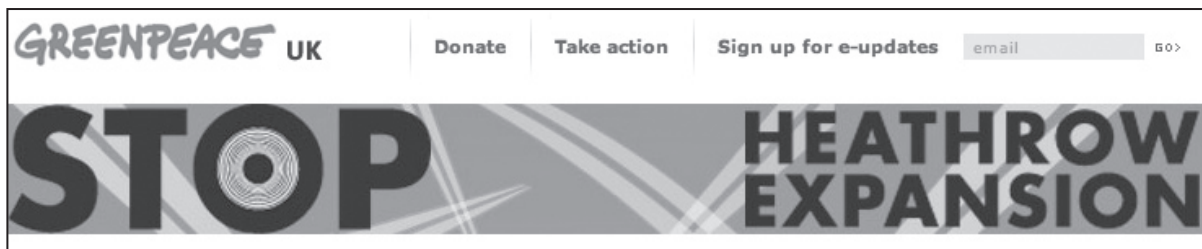
According to Greenpeace:

- flying is ten times more damaging to the environment than train travel
- emissions from air travel will be four times greater in 2050 than in 1990.

Greenpeace is campaigning against a proposed expansion of Heathrow airport which involves building a new runway. Greenpeace claims that the expansion of Heathrow will increase the number of flights over London by 900 each day to over 2,000. There are currently over 1,200 flights a day over London.

Source: adapted from <http://www.greenpeace.org.uk/heathrow/no-3rd-runway>

Evidence G:



In November 2007 members of Greenpeace carried out a protest at the Eurostar train station at St Pancras in London. The group urged the Prime Minister to abandon the proposal to build a third runway at Heathrow Airport. Greenpeace would like to see a rise in the use of train travel.

Source: adapted from <http://www.greenpeace.org.uk/blog/climate/yes-to-rail-no-to-a-3rd-runway-20071114>



Section A

Answer ALL of the questions in this section.

1. (See Evidence A and B)

(a) Using an example, explain what is meant by the term '*competition*'.

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(4)

(b) Use the Evidence to describe **two** ways in which the Airbus A380 has a 'competitive advantage' over the Boeing 747.

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(6)

(Total 10 marks)

Q1

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2. (See Evidence B)

(a) Define the term '*variable costs*' and give **two** examples.

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(4)

(b) The Airbus A380 can carry more passengers than the Boeing 747. Explain why this might be important for airlines, such as British Airways, which buy these aeroplanes.

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(6)

(Total 10 marks)

Q2

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3. (See Evidence B)

(a) Using an example, explain the meaning of the term 'break-even point'.

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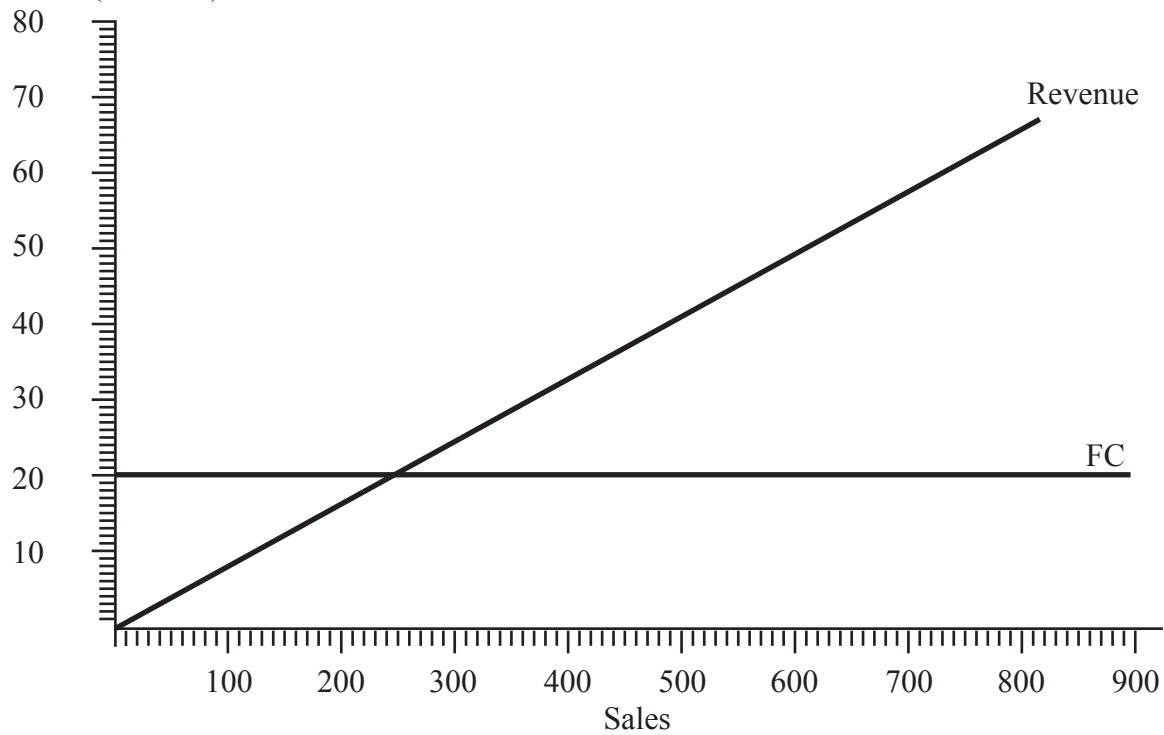
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(4)

Airbus needs to sell 420 of the A380 to break-even.

(b) On the diagram below, draw and label a total cost line which gives a break-even point of 420. Clearly label the break-even point.

Costs and Revenue (\$ billion)



(4)



4. (a) Explain the difference between internal and external sources of finance. Give **one** example of each.

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(b) The costs involved in designing and building new aeroplanes are very high. Explain what you believe would be the most appropriate source of finance for a project of this size.

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(6)

(Total 12 marks)

Q4

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(c) Using an example, define the term *'ethical responsibility'*.

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(4)

(d) Identify **two** methods by which a business such as Airbus might demonstrate its ethical responsibility.

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(2)

(e) Using your suggestions in part (d) above, explain which would be the most appropriate method by which a business such as Airbus would use to show its ethical responsibility.

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