

This numerical reasoning test comprises **30 questions**, and you will have **30 minutes** in which to correctly answer as many as you can. Calculators are permitted for this test, and it is recommended you have some rough paper to work on.

You will have to work quickly and accurately to perform well in this test. If you don't know the answer to a question, leave it and come back to it if you have time. Each question will have four possible answers, one of which is correct. You may click Back and Next during the test to review or skip questions.

You can submit your test at any time. If the time limit is up before you click submit the test will automatically be submitted with the answers you have selected. It is recommended to keep working until the time limit is up.

Try to find a time and place where you will not be interrupted during the test.  
**When you are ready, begin the test.**

Number of Employees					
Parent Company's 5 subsidiary companies	2005	2006	2007	2008	2009
Subsidiary 1	1,538	1,584	1,573	1,585	1,614
Subsidiary 2	1,107	1,084	1,060	1,068	962
Subsidiary 3	1,340	1,384	1,393	1,398	1,412
Subsidiary 4	1,505	1,495	1,528	1,548	1,583
Subsidiary 5	1,010	980	946	997	1,029
Parent company: Employees working part-time (%)	12.0	8.1	8.0	5.4	5.0

*Note: the entire workforce of the parent company comprises only the employees of its five subsidiary companies*

- Q1** Between which three years was there an average of 1,553 employees for one of the Subsidiary Companies?
- (A) 2005-2007 Subsidiary 1  
 (B) 2006-2008 Subsidiary 1  
 (C) 2007-2009 Subsidiary 4  
 (D) 2007-2009 subsidiary 1  
 (E) None of these
- Q2** In 2008 subsidiary company 4 comprised 2 regions with double the number of employees in one region compared to the other. If the ratio of male:female employees in the smaller region was 1:1.15, what was this region's number of male employees?
- (A) 240  
 (B) 828  
 (C) 414  
 (D) 394  
 (E) 360

- 
- Q3** 1 in 15 of the parent company's part-time employees were managers in 2005, and 1 in 13 part-time employees were managers in 2007. What was the difference in the number of part-time managers in 2005 compared to 2007?
- (A) 14 less
  - (B) 12 more
  - (C) 12 less
  - (D) 13 more
  - (E) Cannot Say
- Q4** What % of the Parent Company's total employees worked for Subsidiary 5 in 2006 (to the nearest whole %)?
- (A) 12%
  - (B) 10%
  - (C) 18%
  - (D) 15%
  - (E) 9%
- Q5** In 2009 what was the absolute difference between the Parent Company's full-time employees and part-time employees (if Number of employees = Full-time employees + part-time employees)?
- (A) 6,270
  - (B) 90
  - (C) 4,733
  - (D) 6,600
  - (E) 5,940

Laptop model	COSTS		UK Price (£)	Ratio of sale price: normal price
	Manufacturing cost (£)	Design cost (£)		
Adelphi	185	80	400	1:2
Adele	140	90	350	3:4
Faze	120	60	380	2:5
Stunn	145	115	420	1:2
Brete	195	130	650	2:3

- Q6** For which laptop, or laptops, is the difference between the manufacturing cost and the design cost less than 20% of the manufacturing cost?
- (A) Brete  
 (B) Stunn and Adelphi  
 (C) Adelphi  
 (D) Stunn  
 (E) None of these
- Q7** Put the laptop models in order of increasing mark-up (Mark-up = Price – Costs).
- (A) Adele, Adelphi, Stunn, Faze, Brete  
 (B) Adele, Stunn, Brete, Adelphi, Faze  
 (C) Adele, Stunn, Adelphi, Faze, Brete  
 (D) Stunn, Adele, Adelphi, Brete, Faze  
 (E) Adele, Stunn, Adelphi, Brete, Faze
- Q8** If the same number of each model was sold last month and total sales were £220,000, how many of each model were sold?
- (A) 200  
 (B) 2510  
 (C) 100  
 (D) 2150  
 (E) Cannot Say



---

**Q9** Which of the following would generate the highest total amount at the sale prices shown?

- (A) 75 Adele laptops on sale
- (B) 150 Adele laptops at a further 60% reduction to the sales price
- (C) 50 Faze and 50 Stunn laptops on sale
- (D) 45 Brete laptops on sale
- (E) 90 Stunn laptops on sale

**Q10** If the sales price for a Faze laptop is \$182.40 in the United States and 255.36 Euros in France, what is the sales price ratio for the UK:US:France? (Use exchange rates of 1.2 Euros to the £; and 1.5\$ to the £).

- (A) 152:121:212
- (B) 7:6:9
- (C) 5:4:7
- (D) 4:5:7
- (E) 152:122:213

2010 Monthly Average	Total Searchers (1000s)	Total Searches (millions)	% of Total Searchers	
			Selling goods/services	Buying goods/services
Australia	19,613	2,412	10	32
Ireland	1,146	170	3	28
UK	31,225	3,975	12	22
Italy	14,850	1,855	6	8
Sweden	16,204	9,578	21	42

Goods/services bought online (% for June 2010 )	Household goods	Films/ music	Financial products	Tickets	Holidays
Australia	9	12	3	17	22
Ireland	3	9	2	10	18
UK	13	10	2	9	15
Italy	9	8	3	8	9
Sweden	5	2	1	3	4

**Q11** In which country was there the second highest number of Searchers buying goods/services online?

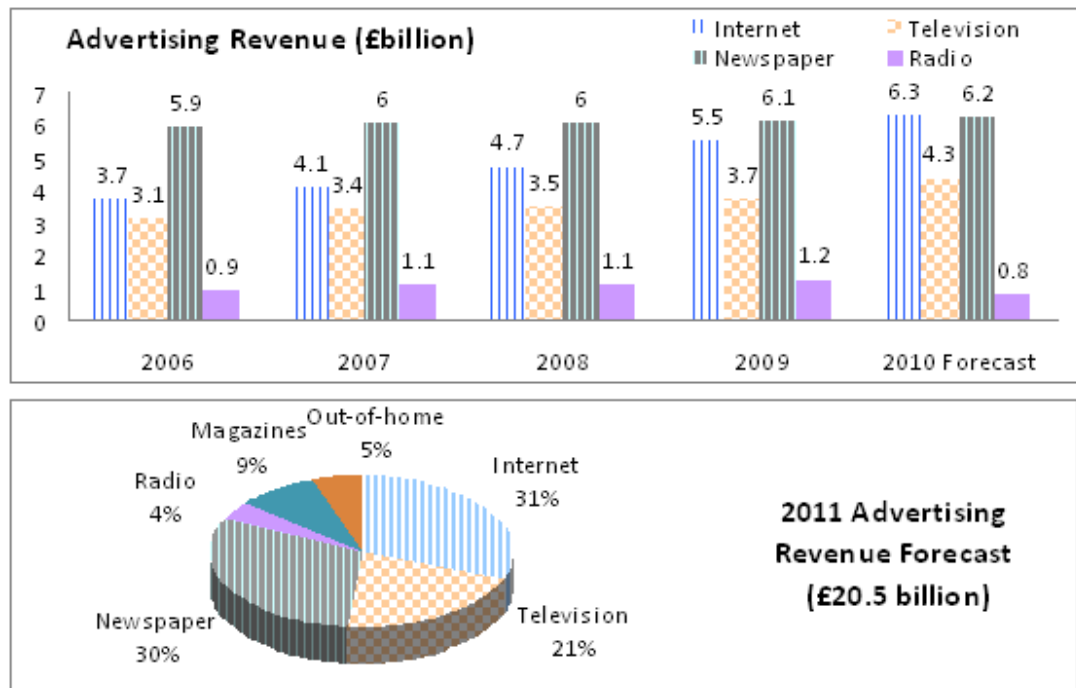
- (A) Australia
- (B) Ireland
- (C) UK
- (D) Italy
- (E) Sweden

**Q12** In which country was there the second lowest number of Searchers selling goods/services online?

- (A) Australia
- (B) Ireland
- (C) UK
- (D) Italy
- (E) Sweden

- 
- Q13** If each UK Internet Searcher spends £1.50 on average per month when buying goods/services online, what is the annual spend of all UK Internet Searchers (to the nearest £million)?
- (A) £125 million
  - (B) £10 million
  - (C) £56 million
  - (D) £124 million
  - (E) £12.3 million
- Q14** If three countries *I.U.I.* (Ireland, UK, Italy) are grouped together and the other two countries *S.A.* (Sweden, Australia) are grouped together, what is the difference between the average number of Internet searches per *I.U.I.* country and the average number of Internet searches per *S.A.* country?
- (A) None of these
  - (B) 2,000 million
  - (C) 3,995 million
  - (D) 6,000 million
  - (E) 1,500 million
- Q15** Which country has the lowest average number of Internet searches per Internet searcher?
- (A) Australia
  - (B) Ireland
  - (C) UK
  - (D) Italy
  - (E) Sweden





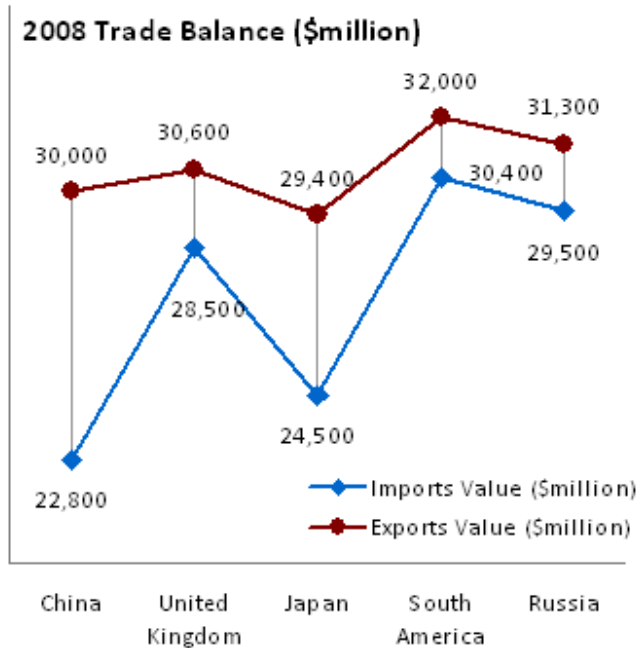
**Q16** Which of the following two media are predicted together to generate £6.15 billion of advertising revenue in 2011?

- (A) Television and Radio
- (B) Newspaper and Radio
- (C) Out-of-home and Newspaper
- (D) Radio and Magazines
- (E) Magazines and Television

**Q17** If the Internet advertising forecast for 2011 is expected to split into mobile: display advertising in a 1:4 ratio, what is the mobile forecast?

- (A) £20.5 billion
- (B) £1.55 billion
- (C) £1.27 billion
- (D) £31.00 billion
- (E) £7.75 billion

- 
- Q18** If the same absolute trends in advertising revenue from 2009 to 2010 continue for 2010 to 2011, then what will be the 2011 advertising revenue for Television and Internet combined?
- (A) £8.1 billion
  - (B) £16.2 billion
  - (C) £21.2 billion
  - (D) £12 billion
  - (E) £10.6 billion
- Q19** In which year, or years, was Television advertising revenue less than 22.5% of the year's total advertising revenue?
- (A) Cannot Say
  - (B) 2008 and 2006
  - (C) 2006
  - (D) 2009 and 2008
  - (E) 2009
- Q20** If in 2009 an external market force had reduced the year's advertising revenue from Newspapers by 10% and from the Internet by 20%, then what was the total 2009 advertising revenue?
- (A) None of these
  - (B) £9.89 billion
  - (C) £11.6 billion
  - (D) £10.44 billion
  - (E) £14.79 billion



2009 Trade Balance*	
	Value (\$ million)
China	18,400
United Kingdom	1,825
Japan	5,840
South America	1,950
Russia	1,200

\* Trade balance = (Exports Value) – (Imports Value)

- Q21** Of the regions shown what was the difference between the highest and the lowest trade balance in 2008?
- (A) None of these  
 (B) \$5,100 million  
 (C) \$510 million  
 (D) \$5,400 million  
 (E) \$5,600 million
- Q22** If Japan's exports value increased by  $\frac{1}{5}$ <sup>th</sup> between 2008 to 2009 then what was Japan's imports value in 2009?
- (A) Cannot Say  
 (B) \$29,400 million  
 (C) \$23,560 million  
 (D) \$25,560 million  
 (E) \$29,440 million

- 
- Q23** Compared to 2009, the UK's trade balance is expected to increase by 3.5% in 2010 and China's trading balance is expected to decrease by 4.4%. What is the difference between the 2010 trade balance forecasts for these countries (to the nearest \$million)?
- (A) \$14,405 million
  - (B) \$15,000 million
  - (C) \$16,000 million**
  - (D) \$15,702 million
  - (E) \$17,000 million
- Q24** Which region or regions have experienced a decrease in their trade balance between 2008 and 2009?
- (A) South America, United Kingdom
  - (B) United Kingdom, Russia
  - (C) South America, Russia
  - (D) South America
  - (E) Russia
- Q25** What is the trading balance range (highest minus lowest) for the five regions between 2008-2009?
- (A) \$1,200 million – \$18,400 million
  - (B) \$5,400 million
  - (C) \$17,200 million
  - (D) \$1,600 million – \$18,400 million
  - (E) \$1,800 million – \$7,200 million

	Annual Birth rate (per 1000 of total population)	Annual births		Annual birth rate for sets of twins (as a % of annual births)
		Male	Female	
<b>COUNTRY</b>				
Scotland	12.2	28,693	27,086	1.6
Northern Ireland	14.8	13,515	12,934	1.9
Wales	12.5	18,640	16,800	1.25
<b>REGION</b>				
Inner London	16.4	24,735	23,461	1.7
Outer London	15.1	35,811	34,189	2
South West	12	30,258	28,747	1.8
South East	12.3	53,141	50,099	1.8
East	12.1	34,745	32,564	2

- Q26** If the number of annual births are distributed evenly across the year and they remain constant at the levels shown, then how many months will it take for Outer London's population to increase by 245,000?
- (A) 34  
(B) 36  
(C) 38  
(D) 40  
(E) 42
- Q27** Which country or countries shown have a population of less than 2.9 million people?
- (A) Wales, Scotland  
(B) Northern Ireland, Wales, Scotland  
(C) Scotland  
(D) Northern Ireland, Wales  
(E) Cannot Say
- Q28** What is the population of Inner and Outer London combined (to the nearest 100,000)?
- (A) 8,000,000  
(B) 4,600,000  
(C) 3,000,000  
(D) 7,600,000  
(E) None of these



---

**Q29** How many babies are born on average as twin births in Wales over five years?

- (A) 4,430
- (B) 886
- (C) 2,215
- (D) 443
- (E) Cannot Say

**Q30** What percent of births are male across the 5 Regions shown?

- (A) 49.5%
- (B) 50%
- (C) 50.5%
- (D) 51%
- (E) 51.4%