

BEAM040

UNIVERSITY OF EXETER

BUSINESS SCHOOL

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RESEARCH METHODS FOR FINANCE AND ACCOUNTING

Module Convenor: Dr Jane Shen

Duration: ONE AND A HALF HOURS

Candidate Number _____

Student ID Number _____

Degree Programme

In Section A, you must answer ALL questions. Each question is worth four marks. This section is worth 60 marks in total.

In Section B, answer ALL questions. This section is worth 40 marks in total.

All questions MUST be answered in THIS booklet.

No extra paper is allowed.

Additional blank pages are provided at the end of this exam book.

You MUST NOT remove this book from the exam room.

Only approved silent non-programmable calculators are permitted.

This is a closed note paper.

SECTION A

Answer ALL questions in this section

Each question in this section is worth 4 marks. In total, this section is worth 60 marks

Give ONE answer only for each question. Mark your answer with a circle around the appropriate letter. If you give more than one answer, you will receive a mark of zero for that question.

Do NOT show your working

1. Research that tests relationships between different variables is
 - A. Exploratory research.
 - B. Descriptive research.
 - C. Analytical research
 - D. A, B and C.
 - E. None of the above.

2. Which one of the following could constitute plagiarism?
 - A. In a published paper, an academic reproduces a table of results from his or her own previously published paper from a journal that owns the copyright, and does not cite the source.
 - B. In a dissertation, a student reproduces material from another dissertation and includes the dissertation in the list of references.
 - C. In a coursework assignment, a student reproduces a table of results from an academic paper without citing its source, but includes this paper in the list of references.
 - D. A and B.
 - E. A, B and C.

3. Which of the following statements about hypothesis testing is correct?
 - A. For a given parameter, a higher t-statistic is associated with a higher p-value.
 - B. For a given parameter, a higher positive t-statistic is associated with a lower p-value.
 - C. In a regression, two coefficients can have the same t-statistic but different p-values.
 - D. A and C.
 - E. B and C.

4. Suppose that you estimate a regression and the t-statistic to test the null hypothesis that one of the parameters is equal to zero is 1.72? The appropriate 95% critical value is 1.96 for a two-tailed test and 1.65 for a one-tailed test. Which one of the following statements is correct?
- A. You can reject the null hypothesis in favour of the alternative hypothesis that the parameter is greater than zero, at the 2.5 percent significance level.
 - B. You can reject the null hypothesis in favour of the alternative hypothesis that the parameter is greater than zero, at the five percent significance level.
 - C. You can reject the null hypothesis in favour of the alternative hypothesis that the parameter is greater than zero, at the ten percent significance level.
 - D. A and B.
 - E. B and C.
5. Suppose that you use a regression to estimate the day of the week effect. In the regression, you include a dummy variable for each of the four working days from Tuesday to Friday, and you also include an intercept. Which one of the following statements is correct?
- A. The regression can be used to test whether the average return on Monday is equal to zero.
 - B. The regression can be used to test whether the average return on Monday is equal to the average return on Friday.
 - C. The regression can be used to test whether the average return on Monday is less than the average return on Friday.
 - D. A and B.
 - E. A, B and C.
6. Which one of the following statements is incorrect?
- A. The correlation coefficient is bounded by -1 and +1.
 - B. If X is correlated with Y, it must be the case that either X causes Y or Y causes X.
 - C. The correlation between any variable and itself is always equal to zero.
 - D. B and C.
 - E. A, B and C.

Turn over/...

7. Which one of the following statements is correct?
- A. If the distribution of a sample of data is symmetric, the mean is equal to the median.
 - B. The variance, range and inter-quartile range are all measures of dispersion.
 - C. If the distribution of a sample of data is symmetric, the kurtosis coefficient is equal to zero.
 - D. A and B.
 - E. A and C.
8. Suppose that you have the month recorded in an Excel file as 'JAN', 'FEB', 'MAR', etc. This format is not recognized by Excel and so you use the VLOOKUP function to find the corresponding month number (i.e. '1', '2', '3' etc.) from a table. The month to be looked up is in Cell A14, the list of months from 'JAN' to 'DEC' is in cells B1:B12 and the corresponding list of month number is in C1:C12. Which one of the following Excel statements will return the correct month number?
- A. =VLOOKUP(A14, B1:C12,2,0)
 - B. =VLOOKUP(A14, B1:C12, 1, 0)
 - C. =VLOOKUP(A14, C1:C12, 1, 0)
 - D. =VLOOKUP(A14, B1:B12, 2, 0)
 - E. =VLOOKUP(A14, C1:C12, 2, 0)
9. Which one of the following Excel functions can be used to calculate the critical value of the standard normal distribution?
- A. NORMDIST.
 - B. NORMSDIST.
 - C. NORMINVS.
 - D. NORMSINV.
 - E. NORMSCRIT.
10. Which one of the following Excel functions could you use to find the value of the observation that divides a sample of data into two equal halves?
- A. AVERAGE.
 - B. MODE.
 - C. MEDIAN.
 - D. HALF.
 - E. None of the above.

11. Which one of the following statements about financial databases is correct?
- A. Business Insights is a leading industry and company expert producing market analysis specific to a wide range of industry sectors and companies.
 - B. WRDS can be accessed using a web query and via SAS.
 - C. You can use the Navigator function to search for the Mnemonic when using DataStream.
 - D. B and C.
 - E. A, B and C.
12. Which one of the following databases/software packages can be accessed using the University of Exeter's subscription to WRDS?
- A. Platinum SDC.
 - B. Thomson Financial.
 - C. Eventus.
 - D. A and B.
 - E. A, B and C.
13. Which one of the following Bloomberg function descriptions is correct?
- A. RV – Customize peer group analysis report.
 - B. PV – Perform fundamental ratio benchmarking.
 - C. MA – Display moving average chart.
 - D. A and B.
 - E. A, B and C.
14. Which one of the following statements about Reuters 3000Xtra is correct?
- A. 'Get Going' is the home page of Reuters 3000Xtra.
 - B. You can use Model Browser to search for available pre-built models.
 - C. You can use PowerPlus Pro for calculations, analytics and pricing.
 - D. A and C.
 - E. A, B and C.
15. Which one of the following statements about Thomson One Banker is correct?
- A. Using the Excel Add-in, financial analysts can pull data directly into Excel from a wealth of financial databases such as Worldscope, Compustat, First Call and I/B/E/S History and Extel using the powerful PFDL (Premier Financial Database Language).

Turn over/...

- B. You can take advantage of more than 50 Income Statements, Cash Flows, Balance Sheet, Earnings and Overview reports that have been pre-built for you and reside in the Thomson ONE Banker Excel Add-in 'Reports Library', or using PFDL, you can easily create, modify and save customized reports to serve your specific needs.
- C. The 'Company Lookup' and 'Item Lookup' features available in the Add-in, allow you to perform fast searches through literally thousands of companies and financial data items.
- D. The Thomson ONE Banker Searching Wizard allows you to quickly identify comparables and build portfolios directly in your Excel Models.
- E. A, B, C and D.

SECTION B

Answer ALL questions in this section

In total, this section is worth 40 marks

Write your answer in the space provided below each question

Turn over/...

Suppose that you conduct an event study to investigate the impact of profit warnings. The returns for 40 companies are in cells C3:AP272 of sheet 'Rit', aligned in event time, with day 0 being the day of the event, which is located in row 242. The return on the S&P 500 index is in cells C3:AP272 of sheet 'Rmt'. The following is a snapshot of your calculations in Excel for 15 days before the event and 15 after the event.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1		Company		1	2	39	40																			
2		α		0.0019	0.0022	0.0027	0.0030																			
3		β		0.5046	-0.0077	0.5834	0.7615																			
4	counter		AR-It																							
5	-15	275		0.39%	27.50%	-0.48%	0.76%																			
6	-14	226		1.86%	2.80%	1.10%	1.82%																			
7	-13	277		1.77%	1.75%	1.55%	1.19%																			
8	-12	220		0.21%	1.25%	0.20%	0.20%																			
9	-11	279		0.29%	-0.53%	-0.57%	-0.57%																			
10	-10	210		0.01%	0.22%	0.30%	2.70%																			
11	-9	231		-0.59%	0.56%	-0.54%	1.87%																			
12	-8	212		0.03%	0.23%	0.30%	0.49%																			
13	-7	213		-0.50%	0.40%	-1.75%	-3.59%																			
14	-6	214		0.07%	2.30%	0.12%	10.81%																			
15	-5	215		-0.06%	0.29%	-0.89%	2.15%																			
16	-4	216		0.01%	0.21%	0.16%	0.57%																			
17	-3	217		0.19%	0.29%	1.17%	-1.50%																			
18	-2	210		0.04%	0.22%	0.30%	0.31%																			
19	-1	219		-0.19%	0.29%	-0.77%	1.06%																			
20	0	240		-1.27%	0.73%	0.30%	-4.24%																			
21	1	241		-0.53%	1.07%	-1.06%	10.43%																			
22	2	242		1.09%	1.40%	0.47%	7.77%																			
23	3	243		0.50%	1.55%	1.08%	-0.56%																			
24	4	244		0.10%	0.21%	0.16%	2.27%																			
25	5	245		-0.45%	0.23%	-0.49%	1.33%																			
26	6	246		0.29%	2.60%	0.20%	1.20%																			
27	7	247		0.87%	0.53%	-0.47%	0.70%																			
28	8	240		0.43%	1.70%	1.22%	0.57%																			
29	9	249		0.48%	0.71%	0.53%	-0.53%																			
30	10	210		0.06%	0.01%	0.30%	0.29%																			
31	11	251		-0.87%	-0.71%	0.73%	1.08%																			
32	12	212		0.04%	0.20%	0.31%	3.06%																			
33	13	253		0.46%	0.55%	-0.79%	-1.59%																			
34	14	214		1.49%	0.21%	0.12%	0.30%																			
35	15	255		0.59%	0.23%	0.53%	-0.55%																			

- a. Write down the Excel formula used to estimate the market model parameters in cells C2 and C3 [5 marks]

b. Write down the Excel formula used to calculate the abnormal return in cell C5. [3 marks]

c. Write down the Excel formula to calculate the average abnormal return in cell AR5. [3 marks]

d. Write down the Excel formula to calculate the t-statistic in cell AU5. [3 marks]

e. Interpret the results of the event study for the day of the announcement (Day 0). [6 marks]

Turn over/...

- f. Explain what other ways there are to calculate abnormal returns (you do not need to write down any Excel formulae). [10 marks]
- g. How would you test whether the abnormal returns in the post-event window (Day 1 to Day 15) were significantly different from zero (you do not need to write down any Excel formulae)? [10 marks]