National Council for Vocational Awards

Spreadsheet Methods   B20028

Practical Examination   2000

Duration Two Hours

<u>INSTRUCTIONS TO CANDIDATES</u>

1. Attempt **all** tasks **in order**.

2. Read the paper throughout before you carry out any of the tasks.

3. Enter your name and examination number clearly on all printouts.

4. Printing may be carried out, under supervision, after the time allowed for the practical examination but no alteration may be made to saved files.

5. The use of calculators is strictly forbidden.

6. Files must be saved on a floppy disk labelled with your name.

7. At the end of the examination, return your disk, all printouts and this examination paper to the supervisor.

Candidate Name: _____   Date: _____

Rapid Repair Services Ltd are involved in the servicing and repair of specialist equipment. They have an expert group of service engineers who travel around the country. Each service engineer is paid travel and overnight expenses. You are required to set up a spreadsheet to calculate the expenses for the engineers.

All monetary data should be displayed in currency format with two decimal places.

	A	B	C	D	E	F
1	Rapid Repair Services Ltd					
2						
3	Travel and Overnight Expenses					
4						
5					Date:	
6						
7	Depart	Return			Rate	Travel
8	Date	Date	Name	Miles	per Mile	Expenses
9	01/05/98	05/05/98	Kelly Miriam	245		
10	04/05/98	06/05/98	Donnelly Helen	76		
11	12/05/98	12/05/98	Murphy James	124		
12	13/05/98	14/05/98	O'Brien Mary	65		
13	13/05/98	17/05/98	Regan Thomas	258		
14	14/05/98	14/05/98	Tynan Patrick	158		
15	18/05/98	24/05/98	Dunne Siobhan	248		
16						
17					Total:	
18					Average:	
19						
20	Name:					

Figure 1

1. Set up the spreadsheet and input the data as shown in **Figure 1**, with alignments as shown and appropriate column widths.

2. Insert today's date from the computer clock into the cell beside the heading **Date**:.

3. Use the IF function to calculate the **Rate per Mile** based on the following information:
     If the **Miles** is less than 100, then the **Rate per Mile** is £0.60
     If the **Miles** is 100 or greater, then the **Rate per Mile** is £0.50

4. Calculate the **Travel expenses** as the **Miles** multiplied by the **Rate per Mile**.

5. Use the SUM function to calculate the total Travel Expenses, and display in the cell beside the side heading **Total:.**

6. Use the Average function to calculate the average Travel Expenses, and display in the cell beside the side heading **Average:.**

7.   Insert your Name in the second column, beside the appropriate label.

8.   Save the spreadsheet under the filename **FILE1**, for printing now or later.

9.   *(a)* Produce a printout of the whole spreadsheet, **FILE1**, excluding the main heading, and showing Row/Column identifiers.

      (b) Produce a printout of the spreadsheet, **FILE1**, showing all formulae with cell references and Row/Column identifiers.

10.   Delete the record for Thomas Regan from the spreadsheet.

11.   Input the additional information as shown in **Bold** print in **Figure 2** below, and move the side heading **Date**: and today's date to their new positions.

	A	B	C	D	E	F	G	H	I	J
1					Rapid Repair Services Ltd					
2										
3					Travel and Overnight Expenses					
4										
5									Date:	
6										
7	Depart	Return				Rate	Travel	**Overnight**	**Special**	**Total**
8	Date	Date	Name	Miles	**Code**	per Mile	Expenses	**Expenses**	**Expenses**	**Payment**
9	01/05/98	05/05/98	Kelly Miriam	245	**A**					
10	04/05/98	06/05/98	Donnelly Helen	76	**C**					
11	12/05/98	12/05/98	Murphy James	124	**A**					
12	13/05/98	14/05/98	O'Brien Mary	65	**B**					
13	14/05/98	14/05/98	Tynan Patrick	158	**B**					
14	18/05/98	24/05/98	Dunne Siobhan	248	**C**					
15	**22/05/98**	**24/05/98**	**Donnelly Mary**	**86**	**C**					
16										
17						Total:				
18						Average:				
19										
20			**Table**							
21		**Code:**	**A**	**B**	**C**					
22		**Rate:**	**£ 0.55**	**£ 0.65**	**£ 0.75**					
23										
24	Name:									

Figure 2

12.   Insert the additional record for Mary Donnelly at to bottom of the list, in the position shown.

13. *(a)*   Delete the contents in the column **Rate per Mile**.

  (b)   Use the LOOKUP function to insert the Rate from the table into the column under the column heading **Rate per Mile**.

14.   Use an IF function to calculate the **Overnight Expenses** based on the following information:

  If the return date is equal to the depart date then there is no overnight expenses.

  If the return date is not equal to the depart date then the overnight expenses is paid at £50.00 per night.

15.   Use an IF function to calculate the **Special Expenses** based on the following information:

  If the Travel Expenses is greater than £100.00 and the Overnight Expenses is £200.00 or more, then the Special Expenses is £50.00.

  If the Travel Expenses is greater than £50.00 and the Overnight Expenses is £100.00 or more, then the Special Expenses is £25.00.

  Otherwise no Special Expenses are paid.

16. *(a)*   Calculate the **Total Payment,** for each engineer, as the sum of **Travel Expenses**, **Overnight Expenses** and **Special Expenses**.

  (b)   Use the SUM function to calculate the totals for the columns **Travel Expenses**, **Overnight Expenses**, **Special Expenses** and **Total Payment**, and place on the row beside the side heading **Total**: under the appropriate column.

  (c)   Use the Average function to calculate the Average for **Travel Expenses**, **Overnight Expenses**, **Special Expenses** and **Total Payment**, and place on the row beside the side heading **Average**: under the appropriate column.

17.   Sort the spreadsheet in ascending order on the **Name** column.

18.   Save the spreadsheet under the filename **FILE2**, for printing now or later.

19. *(a)*   Produce a printout, in landscape orientation, of the whole spreadsheet, **FILE2,** showing Row/Column identifiers.

  (b)   Produce a printout of the spreadsheet, **FILE2**, showing all formulae with cell references and Row/Column identifiers.

20. Produce a **Bar Chart** from the spreadsheet **FILE2** to show the Total Payment paid to each engineer.

   (a) The total payment should be taken from the **Total Payment** column.

   (b) The bar chart should have the heading **Travel and Overnight Payments**.

   (c) The X axis should have the Engineer's name under each bar and have the word **Engineer** as the X axis label.

   (d) The Y axis should show the payment and have the words **Total Payment** as the Y axis label.

21. Save the Bar Chart under the filename **CHART** (either separately or as part of the spreadsheet - FILE2), for printing now or later.

22. Print the chart.

CHECK LIST OF REQUIREMENTS

At the end of the examination you should have the following items:

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1. The following files saved on disk: (a) **FILE1**   ☐

   (b) **FILE2**   ☐

   (c) **CHART**   ☐

2. The following printouts: (a) **FILE1,** (specified area only), to show all values**.**   ☐

   (b) **FILE1**, to show all **formulae** and cell references.   ☐

   (c) **FILE2**, to show all **values.**   ☐

   (d) **FILE2**, to show all **formulae** and cell references.   ☐

   (e) **CHART**   ☐