



***(National Council for Vocational Awards)***



# **Spreadsheet Methods B20028**

**Practical Examination 2006**

# **Duration: Two Hours**

## **INSTRUCTIONS TO CANDIDATES**

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 your allocated network drive.
7. **At the end of the examination, return all printouts and this examination paper to the supervisor.**

Candidate Name: \_\_\_\_\_ Date: \_\_\_\_\_

- Harney Animal Foodstuffs is a large national producer of a range of animal feeds for agricultural use. To assist with keeping track of production and work bonuses, you are required to create a spreadsheet to be used on a weekly basis for tracking these values.

All monetary data should be displayed in currency format. All decimal values should have two decimal places. All columns should be aligned and width adjusted as shown.

	A	B	C	D	E	F	G	H
1	Harney Animal Foodstuffs Ltd							
2								
3	Weekly Production Record for Week: 12							
4								
5				Date:				
6								Staff
7	Plant	Cattle	Pig	Sheep	Total	Average	Bonus	Productivity
8	Number	Feed	Feed	Feed	Tonnage	Tonnage	Rating	Bonus
9	1	2098	2345	123				
10	2	9012	1324	421				
11	3	7658	6502	572				
12	4	9802	5542	923				
13	5	4327	2109	987				
14	6	7402	1967	210				
15								
16				Total:			Total:	
17				Average:			Average:	
18								
19	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 heading and sub-heading as shown, centered at the top of the sheet.
3. Insert your name beside the side heading as shown.
4. Insert today's date *automatically from from the computer clock* beside the heading **Date**
5. Calculate the **Total Tonnage** and the **Average Tonnage** production per factory.
6. Calculate the **Total** and **Average** values across the Plants as shown.
7. Use the IF function to calculate the **Bonus Rating** based on the following information:
  - 7.1 If the **Total Tonnage** exceeds 10000 tonnes, then the rating is €1.50
  - 7.2 If the **Total Tonnage** doesn't exceed 10000 tonnes, the the rating is €0.75
8. Calculate the **Staff Productivity Bonus** as the **Total Tonnage** multiplied by the **Bonus Rating**.
9. Calculate the **Total** and **Average** of the **Staff Productivity Bonuses** across the Plants as shown

10. Save the spreadsheet under the filename **HARNEY1**, for printing now or later.

10.1 Produce a printout of the whole spreadsheet, **HARNEY1**, excluding the main heading, and showing Row/Column identifiers.

10.2 Produce a printout of the spreadsheet, **HARNEY1**, showing all formulae with cell references and Row/Column identifiers.

11. Input the *additional information* and *make changes* as shown in **Bold** print in **Figure 2** below. DO NOT USE BOLD EFFECT WHEN ENTERING THE CHANGES.

	A	B	C	D	E	F	G	H	I	J	K
1	Harney Animal Foodstuffs Ltd										
2											
3	Weekly Production Record for Week: <b>25</b>										
4											
5		<b>Date:</b>									
6									Staff		<b>Bonus per</b>
7	Plant	<b>Plant</b>	Cattle	Pig	Sheep	Total	Average	Bonus	Productivity	<b>Staff</b>	<b>Staff</b>
8	Number	<b>Name</b>	Feed	Feed	Feed	Tonnage	Tonnage	Rating	Bonus	<b>Count</b>	<b>Member</b>
9	1		2098	2345	123						
10	2		9012	1324	421						
11	3		7658	6502	572						
12	<b>3a</b>		<b>3201</b>	<b>3345</b>	<b>807</b>						
13	4		9802	5542	923						
14	5		4327	2109	987						
15											
16		<b>Total:</b>						Total:			
17		<b>Average:</b>						Average:			
18											
19		<b>Plant</b>				<b>1</b>	<b>2</b>	<b>3</b>	<b>3a</b>	<b>4</b>	<b>5</b>
20		<b>Name</b>				<b>Macroom</b>	<b>Thurles</b>	<b>Galway</b>	<b>Arklow</b>	<b>Cork</b>	<b>Wicklow</b>
21		<b>Staff</b>				<b>201</b>	<b>150</b>	<b>175</b>	<b>168</b>	<b>134</b>	<b>200</b>
22	Name:										

**Figure 2**

12. Re-center the heading and subheadings over the sheet.

13. Insert a new column for **Plant Name** as shown.

14. Move the side heading **Date:** to its new position as shown.

15. Move the first side headings **Total** and **Average** to their new positions.

16. Delete the record for **Plant 6** from the spreadsheet.

17. Insert a record for plant **3a** with details as shown. Replicate the formulas for the plant as required.

18. Insert the plant information table, with the 3 column gap, formatted as shown.

19. Use the LOOKUP function to transfer the plant **Name** from the table to the **Plant Name** column.

20. Use the LOOKUP function to transfer the plant **Staff** count from the table to the **Staff Count** column.

21. The **Bonus per Staff Member** is the **Staff Productivity Bonus** divided by the **Staff Count**.

22.Hide columns C, D & E so that the sheet looks like that in **Figure 3**, below, (but with the missing formulas filled in).

	A	B	F	G	H	I	J	K
1	Harney Animal Foodstuffs Ltd							
2								
3	Weekly Production Record for Week: 25							
4								
5		Date:						
6						Staff		Bonus per
7	Plant	Plant	Total	Average	Bonus	Productivity	Staff	Staff
8	Number	Name	Tonnage	Tonnage	Rating	Bonus	Count	Member
9	1							
10	2							
11	3							
12	3a							
13	4							
14	5							
15								
16		Total:			Total:			
17		Average:			Average:			
18								
19		Plant	1	2	3	3a	4	5
20		Name	Macroom	Thurles	Galway	Arklow	Cork	Wicklow
21		Staff	201	150	175	168	134	200
22	Name:							

**Figure 3**

23.Insert an extra column **Managerial Bonus** as shown in column Figure 4.

	A	B	F	G	H	I	J	K	L
1	Harney Animal Foodstuffs Ltd								
2									
3	Weekly Production Record for Week: 25								
4									
5		Date:							
6						Staff		Bonus per	
7	Plant	Plant	Total	Average	Bonus	Productivity	Staff	Staff	Managerial
8	Number	Name	Tonnage	Tonnage	Rating	Bonus	Count	Member	Bonus
9	1								
10	2								
11	3								
12	3a								
13	4								
14	5								
15									
16		Total:			Total:				
17		Average:			Average:				
18									
19		Plant	1	2	3	3a	4	5	
20		Name	Macroom	Thurles	Galway	Arklow	Cork	Wicklow	
21		Staff	201	150	175	168	134	200	
22	Name:								

**Figure 4**

23 Use an IF function to calculate the **Managerial Bonus** as follows:

23.1 If the Cattle Feed AND the Pig Feed production are both in excess of 4000 then the bonus is €750 contd...

23.2 If the Cattle Feed exceeds 4000 AND the Sheep Feed exceeds 600 then the bonus is €450

23.3 Otherwise the managerial bonus is 0.

24 Re-center the headings over the sheet.

25 Sort the spreadsheet in ascending order on the **Plant Name** column.

26 Save the spreadsheet under the file name **HARNEY2**, for printing now or later.

26.1 Produce a printout, in *landscape* orientation, of the whole spreadsheet, **HARNEY2**, showing Row/Column identifiers.

26.2 Produce a printout, in *landscape* orientation, of the spreadsheet, **HARNEY2**, showing all formulae with cell references and Row/Column identifiers.

---

27 Produce a **Pie Chart** from the spreadsheet **HARNEY2** to show the **Managerial Bonus** paid to each plant Manager.

27.1 The **Managerial Bonus** should be taken from the **Managerial Bonus** column.

27.2 The **Plant Name** should be taken from the **Plant Name** column.

27.3 The pie chart should have the heading **Week 25 Managerial Bonuses**.

27.4 Use a legend to identify each segment of the pie chart.

27. Save the chart on a separate sheet within **HARNEY2**. Print the chart on a sheet by itself.

---

### **CHECK LIST OF REQUIREMENTS**

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

- |                                                                                             |                          |
|---------------------------------------------------------------------------------------------|--------------------------|
|                                                                                             | √                        |
| 1. The following files saved on disk: (a) <b>HARNEY1</b>                                    | <input type="checkbox"/> |
| (b) <b>HARNEY2</b>                                                                          | <input type="checkbox"/> |
| 2. The following printouts: (a) <b>HARNEY1</b> , (specified area only), to show all values. | <input type="checkbox"/> |
| (b) <b>HARNEY1</b> , to show all <b>formulae</b> and cell references.                       | <input type="checkbox"/> |
| (c) <b>HARNEY2</b> , to show all <b>values</b> .                                            | <input type="checkbox"/> |
| (d) <b>HARNEY2</b> , to show all <b>formulae</b> and cell references.                       | <input type="checkbox"/> |
| (e) <b>CHART</b>                                                                            | <input type="checkbox"/> |