

**Faculty of Veterinary Medicine and Animal Sciences**  
**PREVET II - Information and Communication Technology**  
**Spreadsheets - Tutorial**

**Exercise 1**

1. Open a blank excel workbook. Delete worksheets 'Sheet2' and 'Sheet3'. Rename 'Sheet1' to 'Data Entry'.
2. Enter the data shown below in the 'Data Entry' sheet.

Employee No	Name	Salary				
1	A. B. C. Silva	1000				
2	G. S. Gunarathne	5000				
3	Y. K. Perera	7000				
4	A. R. Dissanayaka	3000				

3. Center the table headings. Set the font size of the headings to 12 and set the background colour of the heading cells to light blue.
4. Draw a thick border around the outside of the table and below the column headings. Draw a thinner border to separate the cells within the table.
5. Set the column width of the Employee No column to exactly hold the widest value in the column.
6. Set the column width of the Name column to 30.
7. Insert two rows above the table.
8. In cell A1, enter a heading 'Employee Details'. This heading should be centered across the entire table (hint-use merge cells).
9. Slant the text of the heading by 50 degrees.
10. Set a pattern of vertical lines in the cell containing the heading.
11. Increase the row height of row A so that the entire heading is visible.
12. Format the Salary column so that the salary is displayed with two decimal places and a comma to separate thousands.
13. Insert a new column between the Name and Salary columns and call it 'Date of Birth'.
14. Enter some dates of birth for the employees. Format the data so that it is displayed in the format 'March 15, 1980'.
15. Freeze the panes in the worksheet so that the column headings are stationary when the cell pointer is moved below the visible area of the worksheet.

16. Hide the Salary column in the worksheet and then unhide it.
17. Insert a new worksheet and call it 'Text to Table'.
18. Create a custom format to enter "University Of" in front of the data entered in the cell. Format cells A1 to F1 using this new format.

## Exercise 2

1. Create the following worksheet in Microsoft Excel.

Item No	Description	Unit Price	Quantity	Value		
121	A4 Paper	500	20			
222	Pen	17.5	52			
152	Pencil	5	15			
323	Box File	100	3			

2. Calculate the value for each row. The value is the Unit Price multiplied by the quantity.
3. Format the Unit Price and Value columns as currency with two decimal places. Format the Quantity column to show only whole numbers.
4. Find the total order of the invoice by finding the total of the Value column using the SUM function.
5. In cell A10, type the value 5 formatted as a percentage.
6. To the right of the Value column, include a column named 'New Value'. Calculate the new value of each item. The new value is the old value multiplied by the percentage given in cell A10. Use copying formulae and absolute referencing to perform this calculation. Find the total new value of the invoice.
7. Change the value in cell A10 to 15 and see the difference in the total value of the invoice.
8. Open a new worksheet. Use data series to enter numbers 1 through 50 in cells B1 through B50.
9. In cell B51, find the count of items in cells B1 through B50.
10. In cell B52, find the average of items in cells B1 through B50.
11. Delete the value 41 from the series. See how the count and average change.
12. In cell C3 find the value of  $52^4$
13. In cell F10, type 'Microsoft'. In cell G10, type 'Excel'. Use a built-in function in Microsoft Excel to get the word 'MicrosoftExcel' in cell F11.
14. Using the SUMIF function, find the total of cells in the range B1 through B20 where the value of the cell is greater than 10. The result should be displayed in cell E15.

15. Open a new worksheet. Enter the data given below. Use Merge cells and vertical and horizontal alignment adjustments to format the cells as shown.

Name	Results					
	Sinhalese	Maths	Science	English		
Aruni	79	52	40	23		
Kamal	56	20	5	65		
Sunil	92	85	72	53		
Nimal	26	82	54	36		
Amara	88	45	52	10		
Kumari	78	69	74	58		
Jagath	62	31	24	58		

16. Insert a new column to the right of each subject. Insert a new row between the column headings and the data. Then, enter new column headings called Marks and Grade and make each subject heading span the two corresponding columns. The final worksheet should look as below.

Name	Results							
	Sinhalese		Maths		Science		English	
	Marks	Grade	Marks	Grade	Marks	Grade	Marks	Grade
Aruni	79		52		40		23	
Kamal	56		20		5		65	
Sunil	92		85		72		53	
Nimal	26		82		54		36	
Amara	88		45		52		10	
Kumari	78		69		74		58	
Jagath	62		31		24		58	

17. Find the grade of each student for each subject. Use the IF function to find the grade. The following is the criteria for calculating the grade.

- If Marks > 75 grade is A.
- If Marks between 65 and 74 grade is B.
- If Marks between 50 and 64 grade is C.
- If Marks between 40 and 49 grade is S.
- If Marks less than 40, grade is F.

### Exercise 3

1. Add the following records to an Excel worksheet.

Employee No	Name	Address	Date of Birth	Salary
1	A.B. Silva	Katugasthota	10-Mar-1952	20000
2	S. Perera	Kandy	09-Feb-1969	12000
3	A.P. Perera	Peradeniya	21-Sep-1975	9000
4	J. Karunaratna	Peradeniya	12-Sep-1965	15000
5	A. K. Perera	Eriyagama	08-Aug-1964	80000

2. Create an auto filter so that only the record of Employee No 2 is displayed.
3. Remove the auto filter. (i.e. display all the records again).
4. Create an auto filter to display the 3 employees with the largest Salary.
5. Remove the auto filter.
6. Use the auto filter feature to display the oldest employee from the 3 employees with the largest Salary.
7. Remove the auto filter.
8. Sort the records in the data sheet first by ascending order of Address and then by descending order of Salary.
9. Set the background colour of cells containing Salaries greater than 12000 to red using conditional formatting.
10. Change the salary of A.P.Perera to 12000. Observe how the conditional formatting is automatically reapplied to format the new salaries greater than 12000.

### Exercise 4

1. The following data shows the number of students registered at an institute in each year. Enter the data in a new worksheet.

Year	New Students	Total Students				
2000	98					
2001	122					
2002	75					
2003	100					
2004	68					
2005	82					

- Calculate the Total Students column using formulas. The Total Students for 2000 is the same as the New Students. The Total Students for all other years is the total of the Total Students for the previous year and the New Students for the current year.
- Draw a 3D Pie chart showing the number of New Students registered each year. Set the chart title to 'Student Registration by Year'. The chart should contain a legend showing the years for which the chart is drawn. It should also contain the percentage next to each segment of the pie chart. The chart should be in the same sheet as the data.