Lab Manual Introduction to Information & Communication Technologies

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Lab Manual

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Week-05

Objectives

After performing this lab, students shall be able to:

- Background insertion.
- Formula calculation and data validation.
- Look up and IF formula.
- Conditional Formatting.
- Drop down lists.
- Pivot table and chart

Task List

Task-1 Background and picture insertion

Add a background image of Comsats logo to your work book. Add the following data and table heading. Use auto complete function for the first two columns.

S.NO	Reg NO	Student Name	Theory 50	Lab exam 50	Result
					100
1	F16-23	Abdullah	50	39	89
2	F16-24	Yumna	23	25	48
3	F16-25	Amna	45	50	95
4	F16-26	David	15	10	25
5	F16-27	Albert	32	45	77
6	F16-28	Rani	35	42	77
7	F16-29	Harry	45	50	95
8	F16-30	Tahira	29	30	59
9	F16-31	Danyal	45	49	94
10	F16-32	Hina	49	50	99

Task-2 Formula Calculation and data validation

Calculate the Result column by adding lab and theory marks. Also apply data validation for the lab and theory marks such that all values are in the range of 0-100.

Task-3 Look up formula

Now add a column naming grade and auto populate it using the lookup formula.

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HINT:

Use a table for the grade range as given.

0	F
50	D
65	С
80	В
90	Α

The first column should contain the value and the second column contains the grade also make sure that the data is in ascending order. Then use the formula LOOKUP(Lookup value, lookup vector, result vector).

Task-4 IF function

Add another column in the table with the heading Remarks and using the IF function fill the column using the criteria for total marks less than 50 write fail and for above 50 write pass.

S.NO	Reg NO	Student Name	Theory 50	Lab exam 50	Result	Grade	Remarks
					100		
1	F16-23	Abdullah	50	39	89	В	Pass
2	F16-24	Yumna	23	25	48	F	fail
3	F16-25	Amna	45	50	95	Α	Pass
4	F16-26	David	15	10	25	F	fail
5	F16-27	Albert	32	45	77	С	Pass
6	F16-28	Rani	35	42	77	С	Pass
7	F16-29	Harry	45	50	95	Α	Pass
8	F16-30	Tahira	29	30	59	D	Pass
9	F16-31	Danyal	45	49	94	Α	Pass
10	F16-32	Hina	49	50	99	Α	Pass

Task-5 Conditional formatting

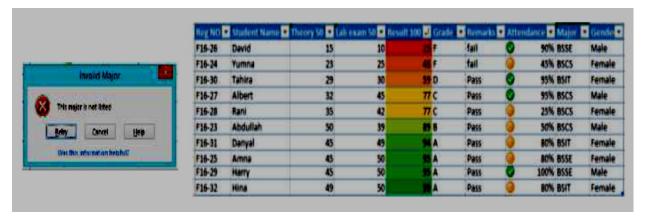
Add another column name attendance in the table. Use percentage formatting for the entire column with no decimal places. Also format the Result column for three colors red, green and yellow such that red indicates the lowest mark, yellow indicating the medium range and green indicating the highest marks. Also apply conditional icons on the attendance table such that attendance below 80 gets a different icon then the attendance above 80. Also format the entire table. Lastly sort the result column from the smallest to largest value.

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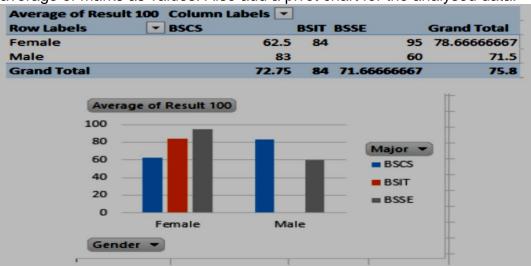
Task-6 Creating a drop down list

Add another column "Major" and fill it using the drop down list. You can find the option under data validation option. Use the following options for the major list BSSE, BSIT, BSCS. Also program the error message to appear as shown below. Also add a gender column using the same list function.



Task-7 Pivot table and pivot chart

Create a pivot table for the above table. Use gender as rows, major as column and average of marks as values. Also add a pivot chart for the analysed data.



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