

Steps 1: open a new Excel page

Step2: Type all the fields on 1<sup>st</sup> row

| EMPLOYEE NAME | BASIC SALARY | DA 10% OF BASIC SALARY | TA 7% OF BASIC SALARY | HRA 5% OF BASIC SALARY | PF  | NET=BASIC SALARY+DA+TA+HRA |
|---------------|--------------|------------------------|-----------------------|------------------------|-----|----------------------------|
| subham        | 10000        | 1000                   | 700                   | 550                    | 380 | 11870                      |
| adarsh        | 15000        | 1500                   | 1050                  | 825                    | 570 | 17805                      |

| EMPLOYEE NAME | BASIC SALARY | DA 10% OF BASIC SALARY | TA 7% OF BASIC SALARY | HRA 5% OF BASIC SALARY | PF       | NET=BASIC SALARY+DA+TA+HRA |
|---------------|--------------|------------------------|-----------------------|------------------------|----------|----------------------------|
| subham        | 10000        | =(B2*10%)              | =(B2*7%)              | =(B2+C2)*5%            | =B2*3.8% | =SUM(B2+C2+D2+E2)-F2       |
| adarsh        | 15000        | =(B3*10%)              | =(B3*7%)              | =(B3+C3)*5%            | =B3*3.8% | =SUM(B3+C3+D3+E3)-F3       |

Step 3: Calculate DA using formula =(b2\*10%) and TA using formula =(b2\*10%) and HRA using formula =(B2+C2)\*5%, PF using =(B2\*3.8%) and NET = (B2+C2+D2+E2-F2)

Step 4: select E11 cell type =SUM(C2:G2) to calculate Total Net salary

Step 5: Select F11 cell type =AVGRAGE(C2:G2) to calculate Average salary

Step 6: Select G11 cell type =MAX(C2:C3) to calculate Maximum salary

Step 7: Select H11 cell type =MIN(C2:C3) to calculate Minimum salary

Task 1:

Step 1: Write "Student Result" in the first cell and Select 7 cells and click on "Merge and Centre"

Step 2: from next row type other fields and specifies the marks

Step 3: calculate Total marks using formula.

| STUDENT RESULT |      |                |                   |                 |             |       |
|----------------|------|----------------|-------------------|-----------------|-------------|-------|
| STUDENT NAME   | ROLL | COMPUTER MARKS | ACCOUNTANCY MARKS | ECONOMICS MARKS | TOTAL MARKS | GRADE |
| A              | 1    | 89             | 65                | 89              | 243         | A     |
| B              | 2    | 65             | 45                | 74              | 184         | A     |

| STUDENT RESULT |      |                |                   |                 |             |  |
|----------------|------|----------------|-------------------|-----------------|-------------|--|
| STUDENT NAME   | ROLL | COMPUTER MARKS | ACCOUNTANCY MARKS | ECONOMICS MARKS | TOTAL MARKS | GRADE  |
| A              | 1    | 89             | 65                | 89              | =SUM(C3:E3) | =IF(F3>=180,"A",IF(F3>=135,"B",IF(F3>=90,"C","FAIL"))) |
| B              | 2    | 65             | 45                | 74              | =SUM(C4:E4) | =IF(F4>=180,"A",IF(F4>=135,"B",IF(F4>=90,"C","FAIL"))) |

Step 4: select Grade cell and type this formula =IF(F3>=180,"A",IF(F3>=135,"B",IF(F3>=90,"C","FAIL")))

Step 5: Drag for other students grades

Task 2:

Step 1: select any cell for counting the number of students who gets > 80 in Computer

Step 2: type =COUNTIF(C3:C6,">=80")

TASK 3:

STEP 1: SELECT THE ENTIRE LIST

STEP 2: CLICK ON HOME RIBBON

STEP 3: CLICK ON FORMAT AS TABLE

STEP 4: SELECT ANY STYLE

STEP 5: CLICK ON OK

Task 1:

| STUDENT NAME | ROLL | COMPUTER MARKS | ACCOUNTANCY MARKS | ECONOMICS MARKS | TOTAL MARKS | AVERAGE     | GRADE |
|--------------|------|----------------|-------------------|-----------------|-------------|-------------|-------|
| AMIT         | 1    | 89             | 74                | 69              | 232         | 77.33333333 | A     |
| RAJESH       | 2    | 65             | 45                | 74              | 184         | 61.33333333 | A     |
| SUBIR        | 3    | 78             | 65                | 45              | 188         | 62.66666667 | A     |
| TAPAS        | 4    | 52             | 36                | 32              | 120         | 40          | C     |

|       |      |
|-------|------|
| ROUND | 77.3 |
|-------|------|

| STUDENT NAME | ROLL | COMPUTER MARKS | ACCOUNTANCY MARKS | ECONOMICS MARKS | TOTAL MARKS | AVERAGE         | GRADE  |
|--------------|------|----------------|-------------------|-----------------|-------------|-----------------|--|
| AMIT         | 1    | 89             | 74                | 69              | =SUM(C2:E2) | =AVERAGE(C2:E2) | =IF(F2>=180,"A",IF(F2>=135,"B",IF(F2>=90,"C","FAIL"))) |
| RAJESH       | 2    | 65             | 45                | 74              | =SUM(C3:E3) | =AVERAGE(C3:E3) | =IF(F3>=180,"A",IF(F3>=135,"B",IF(F3>=90,"C","FAIL"))) |
| SUBIR        | 3    | 78             | 65                | 45              | =SUM(C4:E4) | =AVERAGE(C4:E4) | =IF(F4>=180,"A",IF(F4>=135,"B",IF(F4>=90,"C","FAIL"))) |
| TAPAS        | 4    | 52             | 36                | 32              | =SUM(C5:E5) | =AVERAGE(C5:E5) | =IF(F5>=180,"A",IF(F5>=135,"B",IF(F5>=90,"C","FAIL"))) |

|       |              |
|-------|--------------|
| ROUND | =ROUND(G2,1) |
|-------|--------------|

Task 2:

- a. Click on Home Tab
- b. Click on Conditional Formatting

- c. Click on Manage Rule
- d. Click on New Rule
- e. Click on "Format only Cells that Contains"
- f. Select Condition
- g. Select conditions and select the format and click ok
- h. For more than one condition click on New Rule again and do the above
- i. Lastly click on Apply and then Click on Ok

Task 3:

- a. Select the entire list
- b. Click on Data tab
- c. Click on Filter
- d. Click on filter Button of Grade
- e. Click on Text Filter and select "Equals" option
- f. Write "A" and click on ok

Task 4:

- a. =ROUND(G2,1)

TASK 1:

| EMPLOYEE NAME | DEPT | BASIC SALARY | DA<br>10% OF<br>BASIC<br>SALARY | TA<br>7% OF<br>BASIC<br>SALARY | HRA<br>5% OF<br>BASIC<br>SALARY+DA | PF<br>3.8 % OF<br>BASIC<br>SALARY | NET<br>BASIC<br>SALARY +<br>DA + TA +<br>HRA - PF |
|---------------|------|--------------|---------------------------------|--------------------------------|------------------------------------|-----------------------------------|---|
| A             | ACC  | 12547        | 1254.70                         | 878.29                         | 690.09                             | 476.79                            | 14893.29  |
| B             | ERP  | 32145        | 3214.50                         | 2250.15                        | 1767.98                            | 1221.51                           | 38156.12  |
| C             | ACC  | 23014        | 2301.40                         | 1610.98                        | 1265.77                            | 874.53                            | 27317.62  |
| D             | ERP  | 10234        | 1023.40                         | 716.38                         | 562.87                             | 388.89                            | 12147.76  |
| E             | CLK  | 22145        | 2214.50                         | 1550.15                        | 1217.98                            | 841.51                            | 26286.12  |

| EMPLOYEE NAME | DEPT | BASIC SALARY | DA<br>10% OF<br>BASIC<br>SALARY | TA<br>7%<br>OF BASIC<br>SALARY | HRA<br>5% OF BASIC<br>SALARY+DA | PF<br>3.8 % OF<br>BASIC<br>SALARY | NET<br>BASIC SALARY + DA<br>+ TA + HRA - PF |
|---------------|------|--------------|---------------------------------|--------------------------------|---------------------------------|-----------------------------------|---|
| A             | ACC  | 12547        | =C2*10%                         | =C2*7%                         | =(C2+D2)*5%                     | =C2*3.8%                          | =C2+D2+E2+F2-G2                             |
| B             | ERP  | 32145        | =C3*10%                         | =C3*7%                         | =(C3+D3)*5%                     | =C3*3.8%                          | =C3+D3+E3+F3-G3                             |
| C             | ACC  | 23014        | =C4*10%                         | =C4*7%                         | =(C4+D4)*5%                     | =C4*3.8%                          | =C4+D4+E4+F4-G4                             |
| D             | ERP  | 10234        | =C5*10%                         | =C5*7%                         | =(C5+D5)*5%                     | =C5*3.8%                          | =C5+D5+E5+F5-G5                             |
| E             | CLK  | 22145        | =C6*10%                         | =C6*7%                         | =(C6+D6)*5%                     | =C6*3.8%                          | =C6+D6+E6+F6-G6                             |

TASK 2:

1. WRITE THE FOLLOWING UNDER THE LIST

| DEPT | NET<br>BASIC SALARY<br>+ DA + TA +<br>HRA - PF |
|------|--|
| ERP  | >=22000  |

2. SELECT THE ENTIRE LIST
3. CLICK DATA RIBBON
4. CLICK ADVANCE FROM SORT AND FILTER COMMAND GROUP
5. SELECT "FILTER THE LIST IN PLACE" FROM ACTION

6. CLICK "LIST RANGE" AND SELECT THE ENTIRE LIST
7. CLICK "CRITERIA RANGE" AND SELECT THE CONDITION WRITTEN UNDER THE LIST
8. CLICK OK

TASK 3:

1. SELECT THE ENTIRE LIST
2. CLICK DATA RIBBON
3. CLICK SORT FROM SORT AND FILTER COMMAND GROUP
4. SELECT EMPLOYEE NAME FROM SORT BY OPTION
5. SELECT Z TO A ORDER FROM ORDER OPTION
6. CLICK OK

TASK 4

1. SELECT THE LIST
2. SELECT THE ALL BORDERS FROM FONT COMMAND GROUP

TASK 5

1. SELECT THE ENTIRE LIST
2. CLICK DATA RIBBON
3. CLICK SUBTOTAL FROM OUTLINE COMMAND GROUP
4. SELECT DEPT FROM "AT EACH CHANGE IN OPTION"
5. CLICK ON NET FROM THE ADD SUBTOTAL TO OPTION
6. CLICK OK

**TASK 1:**

| STUDENTS NAME | ROLL | COMPUTER | ACCOUTANCY | ECHONOMICS | TOTAL | AVERAGE |
|---------------|------|----------|------------|------------|-------|---------|
| ABHI          | 1    | 99       | 79         | 76         | 254   | 84.67   |
| BUMBA         | 2    | 85       | 65         | 65         | 215   | 71.67   |
| INDRA         | 3    | 75       | 84         | 65         | 224   | 74.67   |
| SNIGDHA       | 4    | 61       | 55         | 65         | 181   | 60.33   |
| RITAM         | 5    | 44       | 65         | 77         | 186   | 62.00   |
| ANKITA        | 6    | 80       | 77         | 78         | 235   | 78.33   |

| STUDENT S NAME | ROLL | COMPUTE R | ACCOUTANCY | ECHONOMIC S | TOTAL       | AVERAGE         |
|----------------|------|-----------|------------|-------------|-------------|-----------------|
| ABHI           | 1    | 99        | 79         | 76          | =SUM(C2:E2) | =AVERAGE(C2:E2) |
| BUMBA          | 2    | 85        | 65         | 65          | =SUM(C3:E3) | =AVERAGE(C3:E3) |
| INDRA          | 3    | 75        | 84         | 65          | =SUM(C4:E4) | =AVERAGE(C4:E4) |
| SNIGDHA        | 4    | 61        | 55         | 65          | =SUM(C5:E5) | =AVERAGE(C5:E5) |
| RITAM          | 5    | 44        | 65         | 77          | =SUM(C6:E6) | =AVERAGE(C6:E6) |
| ANKITA         | 6    | 80        | 77         | 78          | =SUM(C7:E7) | =AVERAGE(C7:E7) |

**TASK 2:**

1. SELECT ALL NAMES PRESS ctrl KEY AND SELECT ALL MARKS
2. SELECT INSERT RIBBON
3. CLICK ON COLUMN OPTION
4. SELECT ANY COLUMN CHART TYPE
5. TO MOVE CHART CLICK ON CHART
6. CLICK ON DESIGN
7. CLICK ON MOVE CHART
8. CLICK ON NEW SHEET
9. CLICK OK

**TASK 3:**

1. SELECT ALL NAMES PRESS ctrl KEY AND SELECT ALL TOTAL MARKS
2. SELECT INSERT RIBBON
3. CLICK ON PIE OPTION
4. SELECT ANY PIE CHART TYPE
5. TO MOVE CHART CLICK ON CHART
6. CLICK ON DESIGN
7. CLICK ON MOVE CHART

8. CLICK ON NEW SHEET

9. CLICK OK

TASK 4:

1. SELECT ALL NAMES PRESS ctrl KEY AND SELECT AVERAGE MARKS

2. SELECT INSERT RIBBON

3. CLICK ON LINE OPTION

4. SELECT ANY LINE CHART TYPE

5. TO MOVE CHART CLICK ON CHART

6. CLICK ON DESIGN

7. CLICK ON MOVE CHART

8. CLICK ON NEW SHEET

9. CLICK OK

Task 1:

| Data      | Description                  |
|-----------|------------------------------|
| 0.08      | Annual interest rate         |
| 10        | Number of months of payments |
| 10000     | Amount of loan               |
| -1,030.16 |                              |

| Data                      | Description                  |
|---------------------------|------------------------------|
| 0.08                      | Annual interest rate         |
| 10                        | Number of months of payments |
| 10000                     | Amount of loan               |
| =PMT(A2/12, A3, A4, 0, 1) |                              |

**PMT(rate,nper,pv,fv,type)**

**Rate** is the interest rate for the loan.

**Nper** is the total number of payments for the loan.

**Pv** is the present value, or the total amount that a series of future payments is worth now; also known as the principal.

**Fv** is the future value, or a cash balance you want to attain after the last payment is made. If fv is omitted, it is assumed to be 0 (zero), that is, the future value of a loan is 0.

Task 2:

1. Task 1:

| Data        | Description                              |
|-------------|--|
| 6%          | Annual interest rate                     |
| 10          | Years you plan on saving                 |
| 50,000      | Amount you want to have save in 10 years |
| -90969.8367 | =FV(A2/12,A3*12,0,A4)                    |

Task 3:

## NPER

|   | A                           | B   |
|---|-----------------------------|---|
| 1 | Data                        | Description   |
| 2 | 12%                         | Annual interest rate  |
| 3 | -100                        | Payment made each period  |
| 4 | -1000                       | Present value   |
| 5 | 10000                       | Future value  |
| 6 | 1                           | Payment is due at the beginning of the period (see above)   |
|   | Formula                     | Description (Result)  |
|   | =NPER(A2/12, A3, A4, A5, 1) | Periods for the investment with the above terms (60)  |
|   | =NPER(A2/12, A3, A4, A5)    | Periods for the investment with the above terms, except payments are made at the beginning of the period (60) |
|   | =NPER(A2/12, A3, A4)        | Periods for the investment with the above terms, except with a future value of 0 (-9.578)                     |

## 4. IRR()

#### Task 4:

|   | A                | B  |
|---|------------------|--|
| 1 | Data             | Description  |
| 2 | -70,000          | Initial cost of a business   |
| 3 | 12,000           | Net income for the first year  |
| 4 | 15,000           | Net income for the second year   |
| 5 | 18,000           | Net income for the third year  |
| 6 | 21,000           | Net income for the fourth year   |
| 7 | 26,000           | Net income for the fifth year  |
|   | Formula          | Description (Result)   |
|   | =IRR(A2:A6)      | Investment's internal rate of return after four years (-2%)                                  |
|   | =IRR(A2:A7)      | Internal rate of return after five years (9%)  |
|   | =IRR(A2:A4,-10%) | To calculate the internal rate of return after two years, you need to include a guess (-44%) |

#### 5. NPV()

#### Task 5:

|   | A                        | B   |
|---|--------------------------|---|
| 1 | Data                     | Description                                     |
| 2 | 10%                      | Annual discount rate                            |
| 3 | -10,000                  | Initial cost of investment one year from today  |
| 4 | 3,000                    | Return from first year                          |
| 5 | 4,200                    | Return from second year                         |
| 6 | 6,800                    | Return from third year                          |
|   | Formula                  | Description (Result)                            |
|   | =NPV(A2, A3, A4, A5, A6) | Net present value of this investment (1,188.44) |

Task 1 :

| Density | Viscosity | Temperature |
|---------|-----------|-------------|
| 0.457   | 3.55      | 500         |
| 0.525   | 3.25      | 400         |
| 0.616   | 2.93      | 300         |
| 0.675   | 2.75      | 250         |
| 0.746   | 2.57      | 200         |
| 0.835   | 2.38      | 150         |
| 0.946   | 2.17      | 100         |
| 1.09    | 1.95      | 50          |
| 1.29    | 1.71      | 0           |

Step 1: fill this table

Step 2: select any cell

Step 3: write HLOOKUP(3.55,a2:c10,4)

Step 4: press enter then result 2.75 will come

Step 5: similarly select another cell and write VLOOKUP(0.746, a2:c10,2)

Step 6 : press enter and result 2.57 will come

Task 2:

Step 1: select any cell a2

Step 2: write any text like " today is "

Step 3: select another cell b3 write "Sunday"

Step 4: select another cell c4 write "=CONCATENATE(a2,b3)

Step 5: in c4 cell result "today is Sunday" will come

Task 3:

Step 1: select cell a12

Step 2: write " I am a student"

Step 3: select cell c22

Step 4: write "=IF(ISNUMBER(SEARCH("poy",a12),"FOUND","ERROR"))

Step 5: it will result "ERROR"

Step 6: write "=IF(ISNUMBER(SEARCH("stu",a12),"FOUND","ERROR"))

Step 7: it will result "FOUND"

## STDDEV()

Suppose 10 tools stamped from the same machine during a production run are collected as a random sample and measured for breaking strength. The example may be easier to understand if you copy it to a blank worksheet.

|    | A        |
|----|----------|
| 1  | Strength |
| 2  | 1345     |
| 3  | 1301     |
| 4  | 1368     |
| 5  | 1322     |
| 6  | 1310     |
| 7  | 1370     |
| 8  | 1318     |
| 9  | 1350     |
| 10 | 1303     |
| 11 | 1299     |

  

| Formula        | Description (Result)                                  |
|----------------|---|
| =STDEV(A2:A11) | Standard deviation of breaking strength (27.46391572) |

## VAR()

Suppose 10 tools stamped from the same machine during a production run are collected as a random sample and measured for breaking strength. The example may be easier to understand if you copy it to a blank worksheet.

|    | A        |
|----|----------|
| 1  | Strength |
| 2  | 1345     |
| 3  | 1301     |
| 4  | 1368     |
| 5  | 1322     |
| 6  | 1310     |
| 7  | 1370     |
| 8  | 1318     |
| 9  | 1350     |
| 10 | 1303     |
| 11 | 1299     |

  

| Formula      | Description (Result)  |
|--------------|---|
| =VAR(A2:A11) | Variance for the breaking strength of the tools (754.2666667) |

## CORREL()

The example may be easier to understand if you copy it to a blank worksheet.

|   | A                    | B   |
|---|----------------------|---|
| 1 | Data1                | Data2   |
| 2 | 3                    | 9   |
| 3 | 2                    | 7   |
| 4 | 4                    | 12  |
| 5 | 5                    | 15  |
| 6 | 6                    | 17  |
|   | Formula              | Description (Result)  |
|   | =CORREL(A2:A6,B2:B6) | Correlation coefficient of the two data sets above (0.997054) |

## REGRESSION

Consider the following data where we have a number of COVID cases and masks sold in a particular month.

| Month | COVID Cases | Mask Sold |
|-------|-------------|-----------|
| Jan   | 40          | 14        |
| Feb   | 190         | 26        |
| Mar   | 340         | 35        |
| Apr   | 680         | 130       |
| May   | 720         | 450       |
| Jun   | 900         | 700       |
| Jul   | 1120        | 800       |
| Aug   | 1383        | 1000      |
| Sep   | 1690        | 1400      |
| Oct   | 1722        | 1500      |
| Nov   | 1841        | 1700      |
| Dec   | 1945        | 1800      |

| SUMMARY OUTPUT               |              |                |          |          |                |           |             |             |
|------------------------------|--------------|----------------|----------|----------|----------------|-----------|-------------|-------------|
| <b>Regression Statistics</b> |              |                |          |          |                |           |             |             |
| Multiple R                   | 0.984799     |                |          |          |                |           |             |             |
| R Square                     | 0.969829     |                |          |          |                |           |             |             |
| Adjusted R Square            | 0.966477     |                |          |          |                |           |             |             |
| Standard Error               | 121.6675     |                |          |          |                |           |             |             |
| Observations                 | 11           |                |          |          |                |           |             |             |
| <b>ANOVA</b>                 |              |                |          |          |                |           |             |             |
|                              | df           | SS             | MS       | F        | Significance F |           |             |             |
| Regression                   | 1            | 4282558        | 4282558  | 289.3038 | 3.77E-08       |           |             |             |
| Residual                     | 9            | 133226.8       | 14802.98 |          |                |           |             |             |
| Total                        | 10           | 4415785        |          |          |                |           |             |             |
|                              | Coefficients | Standard Error | t Stat   | P-value  | Lower 95%      | Upper 95% | Lower 95.0% | Upper 95.0% |
| Intercept                    | -337.528     | 79.77374       | -4.23106 | 0.002203 | -517.988       | -157.067  | -517.988    | -157.067    |
| 40                           | 1.057681     | 0.062184       | 17.00893 | 3.77E-08 | 0.917012       | 1.198351  | 0.917012    | 1.198351    |