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**Practical No:01 Types of Errors**

**Objective:** To find Absolute Error, Relative Error and Percentage Error.

**2. Algorithm:**

1. START.
2. READ VALUES OF 'TV' AS TRUE VALUE AND 'AV' AS APPROX VALUE.
3. CALCULATE EA= [TV-AV] , HERE EA REFERS TO ABSOLUTE ERROR AND [] REFERS TO MODULUS SIGN.
4. CALCULATE ER=EA/TV , ER REFERS TO RELATIVE ERROR.
5. CALCULATE EP=ER\*100 , EP REFERS TO PERCENTAGE ERROR.
6. DISPLAY ALL THE RESULTS.

STOP.

1. **Code :**

#include <stdio.h>

#include <math.h>

int main()

{

float tv, av, ea, er, ep;

printf("enter true value: ", tv);

scanf("%f", &tv);

printf("enter approx value: ", av);

scanf("%f", &av);

ea = fabs(tv - av);

er = ea / tv;

ep = er \* 100;

printf("absolute error is = %.3f \n", ea);

printf("relative error is = %.3f \n", er);

printf("percentage error is = %.3f % \n", ep);

return 0;

}

**4. Output:**

enter true value: 8.6789

enter approx value: 8.68

absolute error is = 0.001

relative error is = 0.000

percentage error is = 0.013