Tutorial No:03   **Semester I, 2019**
To be discussed on : 21/07/2020

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1. Use the IEEE Single Precision formate and calculate the followings.

    (i) $21 + 5$

    (ii) 30 - 26

    (iii) 12×5

    (iv) $100 \div 2$

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2.   (I) Considering first six terms in the series expansion of cos x, calculate the approximate value of the cos x , centered at x=0.
Discuss the types of errors are in this calculation.

  (II) Suppose 3.141 is used as an approximation to π. Find the absolute error, relative error and percentage error when π is 3.1415926 .

  (III) Round-off the numbers 819946204 to four significant figures and compute the absolute error, relative error and percentage error.

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3.   (I) Obtain the error propagation for two numbers under the following operations.

    (i) Addition
    (ii) Subtraction
    (iii) Multiplication
    (iv) Division

  (II) Find the absolute errors for the followings formula at x=0.960 , y=1.036, where the values are corrected to the given decimal places.

    (i) x + cos(x)
    (ii) $(x + y)^2$

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