Department of Physics

University of Rajasthan

Computer Programming (Code: H02)

Assigned: 29 August 2016   *1st Home Assignment*   Due: 11 September 2016

1) Integrate a given function with
   a) Trapezoidal rule
   b) Simpson's ⅓ rule and
   c) Simpson's ⅜ rule.

   Do the process for at least 1000 iterations and calculate the relative errors with different values of iterations.

2) Make a c-program in which all processes, mentioned in question 1, are in same program. Compare all processes with each other. Program should tell us, which one gives the best results.

3) Make a c-program for the process defined in question 1. Here each process should have error less than 0.001 %.

Note: This assignment is only for the students of computer lab. For the student, who doesn't appear in computer lab for whole week, they have to submit the same assignment which were assigned previous year. You can find the previous year first assignment at 2015 course page. For these students, due date is same as others which is 11 September 2016.

You have to submit your assignment personally. If a student fails to submit assignment by 11 September 2016, it will be taken as the student is not going to submit this assignment. But for submitting next assignment, you have to submit this assignment first.

Your name: End of text.