

ESO 208A: Computational Methods in Engineering

Programming Assignment 4: *Boundary Value Problem*

Write a computer program to solve the Problem 9 of Problem Set 7. In the program, keep the following user options:

- Grid size (h)
- Implementation options for the small end boundary: 2nd order Backward Difference or 2nd order Central Difference with Ghost Node

You may use the Thomas Algorithm program module that you wrote in Programming Assignment 2.

Due date: Friday, November 16, 2018, 11:59 pm

Make a single zip folder with all the file(s) and name it P4_roll number.zip (e.g., If your roll no. is 123456, the folder name should be 'P4_123456.zip'). The folder should include -

- (i) The computer program file(s) and output file(s)
- (ii) A PDF file with the plots of the results with two boundary conditions options with $h = 0.1$

Send the zip file by e-mail to: eso208.sec*@gmail.com, where * is section number 1-10.
Example: for section O5, it is eso208.sec5@gmail.com; for section O10, it is eso208.sec10@gmail.com