

ITU PHYSICS ENGINEERING. STUDENT,
IDENTITY NUMBER :

dec 12, 16

NAME LASTNAME :

FIZ 411E HOMEWORK – 3 (about CHAPTER 4) due dec16, 16 Friday

Lecture book : introduction to electrodynamics 4th edition by David J. Griffiths (all figures from Lect. bk.)

POINT :

[Question.1] About Bound Charges.

Solve Example 4.2 by using the results of example 3.9 (you can give the your solution for [Q.2.1] as the reference) in the lecture book.

And sketch the figure for **E** lines.

[Question.2] About Gauss' Law in the presence of dielectrics.

Solve Problem 4.15 in the lecture book.

[Question.3] About linear dielectrics.

[Q.3.1] Solve example 4.5 in the lecture book.

[Q.3.2] Solve problem 4.18 in the lecture book.

[Question.4] About boundary-value problem with linear dielectrics.

Solve Example 4.7 with the help of the results of example 3.8 in the lecture book.

And sketch the figure for **E** lines.

[Question.5] About the energy in the dielectric system.

Solve Problem 4.26 in the lecture book by using the your solution to [Q.3.1] above.

[Question.6] About the forces in the dielectric system.

Solve Problem 4.28 in the lecture book.