**Ch. 6 Homework ECE 327 - Lynch**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Problem** | **Course outcome** | **Grade** |
| 6.1 | 1.c. | /10 |
| 6.3 | 1.c. | /10 |
| 6.4 | 1.c. | /20 |
| 6.7(a) | 1.c. | /10 |
| 6.7(b) | 1.c. | /10 |
| 6.7(c) | 1.c. | /10 |
|  | **TOTAL:** | /70 |

Notes:

6.4: “the numerical example given in this chapter” refers to TABLE 6.1

6.7: OrCAD Project for PSpice simulation can be found on the ENCS lab computers, Windows, “C:\ECE 327\17.a. PFC Average Model”

6.7(a): Submit plots of input voltage, inductor current and output voltage

6.7(b): Recall how you performed Fourier analysis in PSpice in homework problem 1.26(c).

6.7(c): Show that your simulation results confirm Equation 6.5

**ABET Learning Outcomes**

1.c. Use appropriate models to formulate solutions related to power converters, electric motor drives, and utility systems