

**ECE 2201
Term A-2023**

Problem Set 2

Due: Monday, September 11, 2023

NOTES:

(1) You must show all work to receive credit. Answers alone are not sufficient.

(2) The book problems have been used before and I am sure solutions are floating about. Be sure you know how to do these problems ON YOUR OWN, since you will be tested in each area.

Section 4.6: Rectifier Circuits (pg. 239)

1. 4.68 Half-Wave
2. 4.69 Full-Wave (using 2 diodes)
3. 4.70 Full-Wave (w/ Diode Bridge)
4. 4.75 Add a Filter Cap (only consider 10% ripple case)
5. D4.78

SIMULATION

6. Confirm your results for problem 4.70 using simulation.
7. Confirm your results for problem 4.75 using simulation (only for 10% ripple).
8. Confirm your results for problem D4.78 using simulation.

Section 4.3: Modeling the Diode / Zener Diode (pg. 236)

9. 4.46 (a), (b), (c) and (d)

Section 4.5: Voltage Regulation (pg. 238)

10. D4.64