

# EECE 490B HW 1

(1.7) a

b

c

(1.8) b

(1.9) c

(1.10) a) maximize output - minimize input

b) minimize input

c) maximize output - minimize input

d) minimize input

(1.11)

As a computer programmer never create or distribute malware, never write code or documentation that is intentionally hard to follow. Never steal other people's work, and always acknowledge other people for their work.

b) I think the underlying ideas are the same. Always put safety first, and never put anyone in risk intentionally. Respect other's work, and never use your knowledge to do harm to others or other equipment/belongings.

(1.12) a) Ethical issues arising here is whether engineers are paid the correct wages for the work done. It also takes into consideration that the engineers are not exploited.

b) At AJA Video Systems interns are paid hourly and full time engineers are paid salary.

c) The person working a lot of overtime and being paid salary is likely to be upset that the interns are being paid extra for their extra work.

used

(1.13)  $P = \$350 - 0.2Q$  ← selling price per unit

$C = 440Q + \$10,000$  ← cost to produce

$Profit = 350Q - 0.2Q^2 - 440Q - 20,000 = -0.2Q^2 + 310Q$

$Revenue = 310 - 0.1Q$

$Q = 775$

(1.14) 1) 5, 10 2) 8, 6 3) 10, 3

a) 1st = 7.5 2nd = 7.0 3rd = 6.5

b) 1st = 6.3 2nd = 7.5 3rd = 8.3