

THE HONG KONG POLYTECHNIC UNIVERSITY
HONG KONG COMMUNITY COLLEGE

Subject Title : Business Economics

Subject Code : CCN2105

Session : Semester One, 2018/19

Numerical Answers

Question B2

(b) $400 - 5P = 10P - 80$, $P = \$32$, $Q = 240$

(c) $E_{Q,P} = -5 \times 32/240 = -0.67$

Question B3

The mean price of used laptops might be $(\$10,000 \times 0.4) + (\$6,000 \times 0.6) = \$7,600$

Question B5

Price for students is \$8 ($P = [-2 \times (1-2)] \times 4 = \8)

Question D1

(a) Profit-maximizing quantity is 160 and the profit-maximizing price is \$8. The maximum profit is 0.

(b) Profit-maximizing quantity is 80 and the profit-maximizing price is \$24. The maximum profit is $(\$24 \times 80 - \$8 \times 80) = \$1,280$.

Question D3

(a) $Q_{d_T} = 2,400 - 2.6P_M + 3P_W + 0.02A$

(c) $Q_{d_T} = 2,400 - 2.6(40) + 3(48) + 0.02(70,000) = 3,840$

Own-price elasticity = $-2.6 \times (40/3840) = -0.03$