Question 1

1. When a firm lowers its price, it loses money on the intensive margin and gains on the extensive margin this is since quantity of products sold lowers, but they are sold at a higher price. When a firm lowers its price, it loses money on the intensive margin and gains on the extensive margin this is because quantity of products sold lowers, but they are sold at a higher price.
2. When a firm increases its price, they gain money on the intensive margin and lose money on the extensive margin, this is due to the increase of products sold.

Question 2

1. so which is the inverse demand formula since P=f(Q)
2. See the excel file.
3. I) At highest level of revenue marginal revenue is equal to 0, because when the revenue is maximal there is no gain in selling one more unit, this is represented by marginal revenue.

II) To maximise revenue, they should charge 6$.

1. They still would charge 6$ as the average customer would still buy 2 appetisers and this maximises revenue.
2. I)Now they would charge 7$

Revenue= (12-3Q)\*Q- 2Q

Take FOC 12-6Q-2=0 so Q=7

II) On intensive they would lose (9-3)\*1=6$, on extensive they would gain 12-9=3$.

Question 3

1. No, the time frame is too short so actual average could be grossly different, since one day sales can be impacted by weather etc.
2. Yes, the time frame is long enough t that averages can be drawn.
3. No since in time of change elasticities can be grossly different than the long-term average.
4. They could use marginal costs.

Question 4

1. Its 3\*(10-8)=6 as they will buy at least 3 martinis at 8$, as they would buy 3 at 10$.
2. No nothing can be said about the upper bound since we don’t know for how much the customer is willing to buy just 1 martini.

Question 5

1. III
2. Because coffee filters and beans are complements so their cross-price elasticity must be negative.
3. Coffee beans 2$, filters 3$ due to (P-MC)/P=1/E.
4. Lower, as the fall in price of one product will increase both its sales and its complement sales, thereby increasing profits.