

MICROECONOMICS GROUP ASSIGNMENT 1

Instructor: Subrato Banerjee

Total Points: 20

Deadline: April 14, 2021

Instructions: Each group must submit the assignment as a **typed PDF document**. Scanned copies of hand-workings are not allowed (submitting which will entail a penalty). Each member of a group will share the exact same grade. Your answer documents must have the names of all the group members, and the email address of the group leader who will convey your grades to you. All the best on this thirty-minute assignment!

Q1. A firm realises that reducing the price of the commodity it sells by 5% will lead to an increase in its quantity demanded by 10%.

- (a) Calculate the price elasticity of demand for this commodity.
- (b) If the firm above actually reduced price by 5%, then what will happen to the total revenue?
- (c) What will happen to the demand for a substitute good, with a cross-price elasticity of demand equalling (+)1?

[2 + 2 + 2 points]

Q2. What will happen to market price and quantity of chicken under the following situations

- (a) If there is a disease that is fatal to chicken.
- (b) If Thanos snapped half of human life out of existence.

[2 + 2 points]

Q3. A village consumes only chicken and potatoes. In this village, a household with a weekly income of \$21 consumes only chicken on Sundays (spending \$9 on the same) after consuming only potatoes on each of the remaining six days of the week (spending \$2 on the same for each of the six days, totalling to \$12). Now, the price of consuming potato per day rises from \$2 to \$3, so that consuming potato for six days costs \$18, leaving less than adequate money for this household to consume chicken on the Sunday. So this household spends the remaining \$3 on potatoes on Sunday as well. Is the law of demand violated here?

[5 points]

Q4. Consider two (downward sloping) linear demand curves with the same vertical intercept, and the slope of one is twice that of the other. Compare the elasticities of demand at any given price level.

[5 points]