KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2017/2018

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF MASTER OF ECONOMICS

EET 802: ADVANCED MICROECONOMIC THEORY II

DATE: FRIDAY 9TH FEBRUARY 2018 **TIME: 2.00 P.M. - 5.00 P.M.**

INSTRUCTIONS: ANSWER ALL THE FOUR QUESTIONS.

1. (a) Using an appropriate example show that for a risk averse investor, utility lost at a lower level of wealth is more than the utility gained at a higher level of wealth.

   (b) A risk averse investor has a utility function given as u(w) where w is the investor's level of wealth/returns. What, if anything, can be said about the effect of, the first, the second and the third derivatives of u(w) on the investor's expected utility?

2. A firm operating in a perfectly competitive market has a cost function given as $c(q) = 5q^2 + 40$. Assuming that the market price is sh.40 per unit, find the firm's profit maximising output level and profit level. Suppose that a per unit tax of sh.10 is introduced, clearly show the effect of the tax on the firm's output and profit level.

3. Write short notes on each of the following:

   (i) The relationship among the Equivalent Variation (EV), the Compensating Variation (CV) and change in Consumer's Surplus (ACS) following a price fall.

   (ii) Externalities as a cause of market failure.

   (iii) The effect of a corporation tax of 100% on the monopolist's optimal output choice.

4. A price discriminating monopolist is faced with the following two demand functions:

$$X_1 = 32 - 0.4 P_1$$
$$X_2 = 18 - 0.1 P_2$$

Assume that the monopolist's cost function takes the following form:

$$c(q) = 40q + 50$$

   (i) Find the optimal price and quantity in each market.

   (ii) If the monopolist is unable to price discriminate, what price will he charge?

   (iii) Show that if the monopolist is able to price discriminate, he will charge a higher price in the market with a lower price elasticity of demand.

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