

HUL212 - MICROECONOMICS

MINOR 1 EXAMINATION (Feb 08, 2014), HTD Sem II, AY 2013-14.

Time Allowed: 1 Hour. (ANSWER ALL. Max marks=30)

[Writing in answer script is an art - master this art by keeping your script clean].

**Q1 [Quiz questions: True/false type; no explanations needed] [4 + 2 = 8 marks]**

- ✓ **(a)** If the Engel curve slopes up, then the demand curve slopes down. ~~(4)~~ If two goods x and y are perfect complements, then if the price of x falls, the entire change in the demand for x is due to the income effect. ~~(4)~~  
 When other variables are held fixed, the demand for a Giffen good rises when income increases. ~~(4)~~ An increase in the interest rate can make a utility maximizing lender (or, saver) become a borrower.

**Q2 [10 marks]** The Food Stamp Program subsidizes food purchases by low-income households. The subsidy takes the form of vouchers, or coupons, which the recipient can use in place of cash when purchasing food, but for no other purpose.

Suppose that a person earns Rs 80 and receives a food coupon of worth Rs 120 from Government. This food coupon can only be spent on food purchase. Assume that the person consumes only two goods - food (F) and all other goods (M). Price per unit of F is Rs 4/- and price per unit of M is Rs 2/-. Assume that the person has a standard utility function denoted by  $U(F, M)$ . By standard utility function we mean marginal utilities are positive and there are diminishing marginal utilities.

- ✓ **(a)** Draw the budget line with horizontal axis measuring F and vertical axis measuring M. (1)  
 ✓ **(b)** Instead of food coupon, if Government gives cash award of Rs 120/- that can be spent on any goods, can you draw the budget line? (1)  
 ✓ **(c)** Initially Government was issuing food coupons only. But now they are planning to switch to cash transfer. Do you think this proposal will necessarily increase utility of the person? (show graphically) (4)  
 ✓ **(d)** Take the case in part (c) where switching to cash transfer from food coupon is increasing consumer's utility. What is happening to his food consumption in this case (show graphically)? (2)  
 ✓ **(e)** From your answers so far, do you think cash transfer is always preferable compared to food coupon scheme? (2)

**Q3 [8 marks]** Suppose a person is consuming two goods - leisure (v) and food (f); and has some initial endowment of time and money given by (T, M). Price of food per unit is  $P_f$  and wage rate per hour is  $w$ . Utility function is standard and is given by  $U(v, f)$ .

- ✓ **(a)** Do you think that an increase in wage rate can never drive the person out of labour market given that initially he is not (logically) choosing to work? (use graphical analysis) (4)  
 ✓ **(b)** If leisure becomes less valuable, then what should be the shape of the indifference curve? Do you think preference over leisure has any role in explaining people's labour market participation? (2+2)

✓ **Q4 [4 marks]** Suppose that the consumer has a demand function for milk of the form:  $X = 10 + \frac{M}{10P}$  where P is the price per liter of milk which denoted by X. Originally his income is Rs 120/- and price of milk is Rs 2/- per liter. Now price has fallen to Rs 2/- per liter. What will be the substitution effect and income effect? (2+2)

THE END