Question Set 2

Section A: Microeconomics

Question 1 (Short questions):

(1) Whether or not the substitution effect under Slutsky's definition of real income is greater or smaller than the equivalent effect under the Hicksian definition of real income, depends on whether the good in question is a normal or inferior good. True of false, explain.

(2) In a production function exhibiting diminishing returns to scale everywhere, the marginal cost of the short run will never intersect with the marginal costs of the long run. True or false, explain.

(3) A unit tax on a competitive industry is always efficient in the long run. True or false, explain.

Question 2

A public utility which is owned by the government and providing a service x, is charging for its service the break-even level of price. The government considers whether to change its policy and offer the service at a lower price. This, of course, would generate losses. Hence, the government would like at the same time to raise taxes to cover these losses.

(a) Show the initial choice with regard to the use of x by a representative individual who is facing the break even price;

(b) What will be the effect of the government proposal on the level of public service consumption and the agent's well-being?

(c) Would your answer to (b) remain unchanged if the loss per unit is greater than the difference between the new low price and the break-even price?

Question 3

A competitive market for commodity x is supplied by companies working in two different regions (A and B). The market itself is equidistance from both regions but region A borders another country where political upheavals have left a large number of skilled workers unemployed. An immigration agreement was reached according to which, workers from the other country can work in this country but not live in it. Hence, there was an influx of workers into region A alone.

(a) Describe the initial set-up of the industry making a clear distinction between the regions. Will the initial technology employed by all firms be the same?

(b) What will be the effects of the influx of workers in region A on the wages in that region? (We assume that local workers are not sufficiently mobile to move into region B).

(c) Analyse the short-run implications of the changes on the equilibrium output and price, on the number of firms in each region, on the output of each firm in each region and on the capital to labour ratio employed in the industry in each region.

(d) What will be the long-run implications for the industry and both regions?

Question 4

Suppose that a labourer has chosen to work L_0 hours at the going real wage of $\acute{\omega}_0$ ($\acute{\omega}$=w/p). He, or she, is now offered the following:

(i) An increase in their real wages to $\acute{\omega}_1$ per hour,
(ii) An increase of £B per hour (which is greater than the increase in the first option: $B>(\acute{\omega}_1-\acute{\omega}_0)$) but only for overtime (the hours above L_0);

(a) What will happen to the labour supplied by this individual under each of these proposals assuming that his choice is in the upward sloping region of his labour supply?

(b) Will your answer be different if he, or she, were at the backward bending region of their labour supply?

(c) Is it possible that the labourer might be indifferent between the two schemes?

Section B: Macroeconomics

Question 5 (Short questions)

(1) Let g_1 and g_2 be the marginal propensity to spend of governments in economies 1 and 2 respectively. $g_1>0$, $g_2<0$. Economy 1 employs a lump-sum tax system while economy 2 employs a proportional tax system. If the marginal propensity to consume and to import is identical in both economies, the multiplier of economy 1 will be greater than the multiplier of economy 2. True or false, explain.

(2) There is no 'paradox of thrift' in an open economy with capital mobility under a flexible exchange rate regime. True or false, explain.

(3) In a closed economy with flexible prices and wages, an increase in government spending financed by an equal increase in taxation will reduce investment by exactly the same amount. True or false, explain.

(4) Can the government make the public richer by changing the banks' reserve ratio?

(5) A cut in the rate of proportional tax will make the IS steeper. True or false, explain.

Question 6

Consider a closed economy. The profits of private corporations constitute a fraction α of national income. These profits are subject to corporate tax and a fraction β of the net profits is distributed to owners. The remaining profits are invested in the economy. To encourage investment, the government proposes to cut the corporation tax. The corporation tax is proportional and so is the regular tax but the rates are not necessarily the same.

(a) Analyse the effects of the government proposal assuming that wages and prices are flexible. Will there be any ambiguity about the results?

(b) Will your answer change had wages and prices been fixed?

(c) Let α=10% and β=50%, would the government achieve its objective had the prices and wages been fixed?

Question 7

Both the rise in recurring epidemics and the deterioration of security around the world have considerably increased the number of people who choose to holiday in their home countries rather than travel abroad.

(a) What will happen to an economy's multiplier?

(b) Analyse the effects of the changes on the economy when there are is no capital mobility and a fixed exchange rate;

(c) Analyse the effects of the changes on the economy when there is perfect capital mobility and a flexible exchange rate regime;

(d) How will your answer to (c) change had there been a flexible exchange rate regime?