

00455

**RESEARCH DEGREE PROGRAMME IN
ECONOMICS**

Term-End Examination

December, 2015

RECE-010 : PUBLIC ECONOMICS

Time : 3 hours

Maximum Marks : 100

Note : Attempt the questions as directed.

SECTION - A

Answer **any two** questions from this section. **2x20=40**

1. Assume that John has 2000 hours to allocate each year between leisure and work. His wage is ₹ 8/hour.
 - (a) Sketch John's budget constraint.
 - (b) Suppose a government scheme provides an income guarantee of ₹ 4000 and a benefit reduction rate of 50%. Sketch John's budget constraint under this scheme.
 - (c) Suppose a revised scheme provides ₹ 3000 and a benefit reduction rate of 25%. Does the reduced income guarantee in part (c) necessarily imply John will increase his labour supply compared to his choice in part (b) ? Give reasons in support of your answer.

2. You have been asked to estimate the incidence of an increase in the tax on cigarettes.
- (a) If you were to estimate an ideal measure of incidence. What would you need to measure ?
 - (b) In a partial equilibrium context use a graph and equations to explain the difference between the following measures of short-run incidence assuming the demand to be linear.
 - (i) Tax revenue as a proportion of income is having non-zero price responsiveness.
 - (ii) Consumer surplus as a proportion of income is having non-zero price responsiveness.
3. Consider an economy with two sectors X and Y. Each sector produces an output using two inputs, capital and labour. Consider a tax on the capital in sector Y.
- (a) Under the Harberger assumptions, how will the burden of the tax be shared among producers, consumers, labour and the dirty input ? Explain.
 - (b) The Harberger model assumes that capital is completely mobile between sectors. Provide a real world example that contradicts this assumption. How are the incidence results affected if the dirty input is not perfectly mobile between sectors ?
 - (c) The Harberger model, by assuming that factor supplies are fixed, essentially assumes that capital and labour do not flow across national borders. If capital can flow across borders and you are allowed to hold labour supply fixed, how would you think, the incidence analysis will change ?

4. Suppose that the government of India imposes a tax of ₹ 6 on each pack of cigarettes. If the supply and demand functions are given as $Q = 30 + 5p$ and $Q = 40 - p$.
- (a) Determine the reduction of quantity caused by the tax ;
 - (b) What would be the dead weight loss caused by the tax ?

SECTION - B

Answer **any five** questions from this section. **5x12=60**

5. John is considering to buy a house for ₹ 5,00,000. He wants to borrow ₹ 4,00,000 at an interest rate of 6%. Consider under what conditions it makes sense for him to buy the house if he currently pays a rent of ₹ 16,800 per year and there will be closing cost of 30% of the amount of loan.
6. Write a critical note on India's system of intergovernmental fiscal relations.
7. Discuss the efficiency implications of a progressive income tax system.
8. What do you mean by vertical and horizontal equity goals of a tax system ? Explain your answer elaborately.
9. What is GST ? Why do you think its implementation will improve the tax system ?

10. Assume that two individuals live for two periods. Their utility function is given as :
 $u = \log(C_1) + \log(C_2)$. They earn ₹ 100 in the first period and save S to meet the consumption expenditure in the second year. The interest rate r is 10% and the government imposes a tax of 20% on labour income. Derive the new optimal levels of C_1 , C_2 and S .
11. Explain how crowding out and inflation can reduce the effectiveness of fiscal policy.
12. Discuss the differential impacts of progressive, proportional and regressive taxes in terms of stabilization policy.
-