

भारतीय प्रौद्योगिकी संस्थान पटना
INDIAN INSTITUTE OF TECHNOLOGY PATNA

HS 202: Introductory Macroeconomics
Mid-semester Examination, February 2018

Duration: 3 hours

Total Marks: 30

Answer any 3 (three) questions. All questions carry equal weightage.

1. Consider an economy which consists only of those who bake bread and those who produce its raw material. Suppose that this economy's production is as follows: 1 million loaves of bread (sold at Rs. 2.00 each); 1.2 million pounds of flour (sold at Rs. 1.00 per pound) and 100,000 pounds each of yeast, sugar & salt (all sold at Rs. 1.00 per pound). The flour, yeast, sugar & salt are sold only to bakers, who use them exclusively for the purpose of making bread.
 - a. Calculate the GDP of the economy.
 - b. How much value is added to the flour, yeast, sugar & salt when the bakers turn into bread?
 - c. Suppose in this economy, a government comes to power and issues bonds. You buy a Rs. 100 government bond that will be due next year. How much nominal interest will you receive if inflation is 4% over the year and the bond promises a *real* return of 3%?
2. Consider an economy described by the following equations
$$Y = 5,000$$
$$G = 1,000$$
$$T = 1,000$$
$$C = 250 + 0.75(Y - T)$$
$$I = 1,000 - 50r$$
 - a. In this economy, compute private savings, public savings, and national savings.
 - b. Find the equilibrium interest rate (r).
 - c. Now suppose that G rises to 1,250. Compute private, public, and national savings. What is the new equilibrium interest rate?
 - d. Now suppose that the government increases taxes and government purchases by equal amounts (both G and T equal 1,250). What happens to the interest rate and investment in response to this balanced budget change? Does your answer depend on the marginal propensity to consume? Why?

3. Use an AD-AS framework to show the short run as well as the long run effect on the level of output and prices when RBI pumps out money from circulation.
 4. During World War II, both Germany and England had plans for a paper weapon: they each printed each other's currency, with the intention of dropping large quantities by airplane in the other's territory. Why might this have been an effective weapon?
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