QUESTION BANK

MACROECONOMICS

Prepared by the faculties of the Department of Economics, B.Com (Evening)
Chapter – 1 (National Income Accounting)

Short answer type questions (2 marks)

1. What is the difference between intermediate goods & final goods and services?

2. Why are the imports subtracted when GDP is calculated in expenditure approach?

3. If you woke up in the working & found that nominal GDP has doubled overnight, what statistic would you need to check before you began to celebrate: Why?

4. What does the consumer price index measure?

5. What are the principal difference between government purchases of goods & service and transfer payments?

6. Why are interest payments by the government considered part of personal income but not part of national income?

7. Define production as an income generating activity.

8. What do you mean by inventory investment?

9. Why the national income is measured at factor prices and not at market prices?

10. Define GDP deflator as a measure of inflation.
11. Explain why we cannot calculate the national product simply by adding up the production of all firms.

12. Why do the economists use real GDP rather than nominal GDP to gauge economic well-being?

13. Why do you think households’ purchase of new housing is included in the investment components of GDP rather than the consumption component?

14. If the price of a Navy submarine rises, is the consumer price index or the GDP deflator affected? Why?

**Long answer type questions:**

1. What is the difference between GDP & GNP? Which one is the better measure of income? Why?

2. What is GDP deflator and how does it differ from the consumer price index?

3. Discuss the three approaches of measuring national income? Show that these three approaches give identical result.

4. Define private saving. How is the private saving used in the economy? What is the relationship between private saving & national saving?

5. Discuss critically GDP as a measure of economic welfare.


7. From national income accounting show that an increase in taxes (while transfer unchanged) must imply a change in net exports, government purchases or the saving investment balance.
8. Identify which of the following purchases is counted as a part of NI:

a) Tata motors purchases tire from Good year to equip new Indica.
b) Tata motors purchases tires from Good year to replace worn tires on executives’ company cars.
c) An individual purchases 50 shares of Microsoft.
d) You purchased a laptop from USA.
e) Indian Statistical Institute gives Scholarship to the students.
f) Employee contributes to retirement plan.
g) Maruti sells Zen from its inventory.

9. How each of the following events is likely to affect GDP?

a) Environmental laws prohibit the firms from emitting pollution
b) Strikes by trade unions.
c) Discovery of new seed increases farm harvest.

Numerical Problems:

1. A farmer grows a bushel of wheat & sells it to a miller for Rs. 1.00. The miller turns the wheat into flour & then sells the flour to a baker for RS. 3.00. The baker uses the flour to make bread & sells the bread to households for RS. 6.00. The households eat the bread. What is the value added in each stages of production? What is GDP?

2. Consider an economy that consists only of those who bake bread and those who produce its ingredients. 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 total income of the economy.
b) How much value is added to the flour, yeast, sugar & salt when the bakers turn into bread?

3. Assume that GDP is Rs. 6000, personal disposable income is Rs. 5100 & the Govt. Budget Deficit is Rs. 200, consumption is Rs. 3800 & trade deficit Rs. 1000. Calculate saving, investment & government spending.

4. The following is the information from the national income accounts for a hypothetical country:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>Rs. 6000.00</td>
</tr>
<tr>
<td>Gross Investment</td>
<td>Rs. 800.00</td>
</tr>
<tr>
<td>Net Investment</td>
<td>Rs. 200.00</td>
</tr>
<tr>
<td>Consumption</td>
<td>Rs. 4000.00</td>
</tr>
<tr>
<td>Govt. purchases of goods &amp; services</td>
<td>Rs. 1100.00</td>
</tr>
<tr>
<td>Govt. Budget Surplus</td>
<td>Rs. 30.00</td>
</tr>
</tbody>
</table>

What is a) NDP b) Net exports c) Govt. taxes minus transfers c) Disposable personal income e) Personal Saving.

5. The following is the information from the national income accounts for a hypothetical country:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNP</td>
<td>Rs. 5000.00</td>
</tr>
<tr>
<td>Personal Disposable Income</td>
<td>Rs. 4100.00</td>
</tr>
<tr>
<td>Consumption</td>
<td>Rs. 3800.00</td>
</tr>
<tr>
<td>X-M</td>
<td>Rs. 50.00</td>
</tr>
<tr>
<td>Govt. Budget Deficit</td>
<td>Rs. 200.00</td>
</tr>
</tbody>
</table>

Calculate Gross Investment and Government Expenditure
6. You are given the following information about an economy:
   Gross Investment = 40
   Govt. purchases of goods & service = 30
   GNP = 200
   X – M = -20
   Personal Tax = 60
   Govt. transfer = 25
   Interest payments from the Govt. to domestic Pvt. Sector = 15
   Factor income received from the rest of the world = 7
   Factor payment made to rest of world = 9

Calculate:
   a) Consumption
   b) GDP
   c) Net factor payment from abroad
   b) Pvt. Saving
e) Public Saving.

7. Consider an economy that produces only three types of fruit: apples, oranges & bananas. In the base year the production & price data are as follows:

<table>
<thead>
<tr>
<th>Fruit</th>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apples</td>
<td>3000 Unit</td>
<td>Rs. 2 per unit</td>
</tr>
<tr>
<td>Bananas</td>
<td>6000 Unit</td>
<td>Rs. 3 per unit</td>
</tr>
<tr>
<td>Oranges</td>
<td>8000 Unit</td>
<td>Rs. 4 per unit</td>
</tr>
</tbody>
</table>

In the current year the production & price data are as follows:

<table>
<thead>
<tr>
<th>Fruit</th>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apples</td>
<td>4000 Unit</td>
<td>Rs. 3 per unit</td>
</tr>
<tr>
<td>Bananas</td>
<td>14,000 Unit</td>
<td>Rs. 2 per unit</td>
</tr>
<tr>
<td>Oranges</td>
<td>32,000 Unit</td>
<td>Rs. 5 per unit</td>
</tr>
</tbody>
</table>

a) Find nominal GDP in the current year & in the base year. What is the percentage increase since base year?
b) Find real GDP in the current year & in the base year. By what percentage does a real GDP increase from the base year to current year?

c) Find the GDP deflator for the current year & the base year. By what percentage does the price level change from the base year to current year?

8. Assuming an economy with no government and no foreign trade. Calculate GDP for the following output scenario:
   There are three firms: firm A is a mining company, firm B is a steel producer and firm C is a car manufacturer. In a specific year firm A sells Rs. 100 million worth of iron ore to firm B, firm B sells Rs. 200 million worth of steel to firm C and firm C sells Rs. 500 million worth of cars to general public. If there are no changes in inventories, no taxes and no other producers in the economy, what is GDP?

9. Suppose the residents of an economy spend all of their income on cauliflower, broccoli and carrots. In 2003 they buy 100 heads of cauliflowers for Rs. 200; 50 bunch of broccoli for Rs. 75 and 500 carrots for Rs. 50. In 2004 they buy 75 heads of cauliflower for Rs. 225; 80 bunches of broccoli for Rs. 120 and 500 carrots for Rs. 100. If the base year is 2003, what is the CPI in both the years? What is the inflation rate in 2004?
Chapter: 2 (Saving, Investment & the Financial System)

Short answer type questions (2 marks):

1. What do you mean by crowding out effect?
2. What is the role of intermediaries in the financial market?
3. Distinguish between nominal & real rate of interest.
4. Discuss the role of the government in the loanable funds market.
5. What do you mean by twin-deficit?
6. Discuss how the international flow of commodities & loans are interrelated among themselves.
7. Why does the saving depends on the real interest rate not on the nominal interest rate?
8. Why does the world interest rate is given to a small open economy?
9. What is Government Budget Deficit? How does it affect interest rates and private investment?
Long answer type questions:

1. Construct a model of loanable funds market in a closed economy.

a) Discuss the effect of an increase in the Government Budget Deficit on the rate of interest & the level of private investment. Identify the crowding out effect in this context.

b) Suppose that investment is perfectly interest inelastic. Discuss the crowding out effect for an increase in the govt. budget deficit.

c) If saving is perfectly inelastic then what will be the crowding out effect for an increase in the govt. budget deficit.

2. Suppose a sudden collapse in the stock exchange of an economy is expected to reduce the future profitability of the firms of the economy. Construct loanable funds market in a closed economy & discuss the effect of it on the rate of interest & investment.

3. Construct loanable funds market in the context of an open economy by assuming that the home country is a small open economy. Discuss the effect of an increase in the govt. budget deficit in the home country. In this context identify the twin deficit.

4. Construct loanable funds market in the context of an open economy assuming that the home country is a small open economy. Discuss the effect of an increase in the govt. expenditure (on expansionary fiscal policy) in the foreign country on home country’s loanable fund market.
5. The economic recovery in India in the decade of the 1980s was driven by the emergence of large fiscal and trade deficit. This had the ultimate effect of raising the real interest rate and crowding out private investment. Illustrate the above phenomenon with the help of loanable funds thereby.

6. Explain the difference between saving and investment as defined by macroeconomists. Which of the following situations represent investment or saving? Explain:
   a) You use your Rs 20000 pay check to buy stocks in Reliance
   b) You borrow Rs. 100000 from a bank to buy a car to use in your company
   c) Your room mate earns Rs.1000 and deposits it in her bank account.

7. Some economists worry that ageing population of industrial countries are going to start running down their saving just when the investment appetite of emerging economies is growing (Economists, May 6, 1995). Illustrate the phenomenon in the context of loanable fund market.
Chapter: 3 (Money and Inflation)

Short answer type questions (2 marks):

1. Discuss the functions of money.

2. What do you mean by High Powered money?

3. “ATM card increases the velocity of money” True or false. Justify.

4. Distinguish between ex-ante and ex-post real interest rate.

5. What do you mean by seignorage?

6. If inflation rate rises from 6 to 8 per cent what happens to real and nominal interest rate according to Fischer effect?

7. What do you mean by Fischer effect?

8. Explain the opportunity cost of holding money.

9. Does the demand for money depend on the real interest rate or the nominal interest rate? Explain.

10. Define velocity of money. Discuss the role of velocity of money in the quantity theory of money.

11. What do you mean by money multiplier?

12. What do you mean by discount rate?

13. What do you mean cash reserve ratio?

14. Show how money supply is related to the stock of high powered money.
15. Comment on the use of discount rate and cash reserve ratio as an instrument of credit control.

16. How does open market purchase of securities by central bank of a country affect money supply?

17. How economy’s money stock is related to high powered money?

18. Distinguish between transaction velocity and income velocity of money.

19. What is inflation tax?

**Long answer type questions:**

1. Discuss the process of credit creation by the commercial banks. Explain in this context the statement that “an individual bank has little ability to expand the money supply unless all the other banks expand in step”

2. Explain the mechanism of the multiple expansions of bank assets and liabilities. What are the factors that affect money supply?

3. What are the determinants of money supply in an economy? In which way the aggregate money supply may be dependent on the rate of interest?

4. Explain how the creation of credit by commercial banks can have multiplier effect on money supply.

5. Explain briefly how high powered money may be created by a central bank. Why does this result in an even greater increase in money supply?
6. Derive money demand function from the quantity theory of money. Justify the necessary assumptions.

7. Explain how the current rate of inflation depends on current money supply as well as on expected growth of money supply.

8. Write a short note on seignorage and inflation tax.

9. The demand for nominal balances rises with the price level. At the same time inflation causes the real demand for money to fall. Explain how these two assertions can be both correct.

10. Present a brief exposition on the quantity theory of money. Identify the assumptions associated with it and interpret them.

11. Explain the relationship among money supply, velocity of circulation, price level and volume of economic transaction. Discuss the significance of the constancy of velocity of circulation of money.

**Numerical Problems:**

1. Suppose in an economy velocity of money is constant. Output grows by 5 percent per year, the money stock grows by 14 percent per year & the nominal interest rate is 11 percent. What is the real interest rate?

2. Assume that the quantity theory of money holds & the velocity of money is constant at 5. Output is fixed at its full employment value of 10,000 & the price level is 2.
   a) Determine nominal & real demand for money.
   b) In the same economy the government fixes the nominal money supply at 5000. With output fixed at its full employment level & with the assumption that prices are flexible, what will be the price level?
3. Suppose that the required reserve ratio is 0.12 for deposits & there are no excess reserves. Suppose that the total demand for currency is equal to 0.3 times deposits.
   a) If total reserves are Rs. 40 billion, what is the level of money supply?
   b) By how much does the money supply change if central bank increases the required reserve ratio to 0.20? Assume that total reserves are unchanged at Rs. 40 billion.

4. Suppose that monetary base is Rs. 20 billion. Public holds 20 percent of economy’s money stock in cash and the remaining 80 per cent in bank deposits and banks wish to hold a 5 per cent of cash reserve. What will the size of money stock?

5. The total value of loan in an economy is Rs. 400 million and the reserve ratio is 20 per cent. An increase of Rs. 15 million in the money which the public keeps in commercial banks together with an increase of the reserve ratio to 25 per cent will increase the total amount of loans by Rs. 50 million. True or false? Explain.
Chapter: 4 (Short-run Economic Fluctuations)

Short answer type question (2 marks)

1. Why is the aggregate demand curve slopes downward?

2. Why is the AS curve upward sloping in the short-run & vertical in long run?

3. What is the difference the short-run & the long run in macroeconomics?

4. What do you mean by business cycle?

5. Distinguish between marginal propensity to consume & average propensity to consume.

6. Why it is easier for the central bank to deal with demand shocks than with supply shocks?

7. What do you mean by balanced budget multiplier?

8. What do you mean by paradox of thrift?

9. Why is the output level demand determined in the Simple Keynesian Model?

10. Assume that there is an increase in autonomous investment. Under which circumstances will the ultimate effect on the level of equilibrium income be greater a) with a relatively high MPC or b) a relative low MPC? Explain.

11. Why does monetary policy fail to moderate an aggregate supply shock?
12. What do you mean by government expenditure multiplier?

13. Discuss the justification of the assumption of strong excess capacity in the Simple Keynesian model.

**Long answer type questions:**

1. Explain the impact of an increase in the money supply in the short run & in the long run in an AD-AS model.

2. Discuss the effect of a favourable demand shock in the short run & in the long run in an AD-AS model. In this context explain the stabilization policy of the government.

3. Suppose in country-A Central Bank cares only about keeping the price level stable & in country-B, its central bank cares only about keeping output & employment at their natural rates. Explain how in the two country, their central bank would respond to
   a) An exogenous increase in the velocity of money.
   b) An exogenous increase in the price of oil.

4. Discuss the effect of a rise in desire to save on saving and income in the Keynesian model.

5. Discuss the output adjustment process in a Simple Keynesian Model. In this context mention the justification of the assumption that MPC is less than one.

6. Using Simple Keynesian Model, discuss the effect of the following:
   a) An increase in govt. expenditure.
   b) A decrease in lump sum taxes.
   In this context compare the govt. expenditure multiplier with tax multiplier.
7. What do you mean by “Balanced Budget Multiplier”? Show that the value of BBM is one when investment is autonomously given.

8. Explain why an increase in autonomous component of aggregate planned demand leads to a larger increase in equilibrium income.

9. Explain why an increase in government spending has a greater multiplier effect on equilibrium output compared to an equal reduction in taxes.

10. Trace out the effect of an increase in autonomous expenditure on equilibrium output in simple Keynesian model. What happens to equilibrium income if MPC rises or falls?

11. Suppose that the economy is currently in a recession. If policy makers take no action how will the economy recover over time? Explain using AD-AS model.

12. Explain whether the following statements are true or false:
   a) The long run aggregate supply curve is vertical because economic forces do not affect long run aggregate supply.
   b) The aggregate demand curve slopes downward because it is the horizontal sum of the demand curves for individual goods.
   c) Whenever the economy enters a recession its long run aggregate supply curve shifts to the left.

**Numerical Problems:**

1. Suppose that the economy is characterized by the following structural equations:
   
   \[ C = 160 + 0.6 (4 - T) \]
   \[ I = 150; \quad G = 150; \quad T = 100. \]

   a) Determine the equilibrium output level.
b) If G rises to 200, what is the how equilibrium level of output? What is the value of the govt. expenditure multiplier?

c) If tax falls to 50, by how much will equilibrium output rise? What is the value of tax multiplier?

2. Suppose you have the following information about a closed economy:
   \[
   \begin{align*}
   C &= 50 + 0.80 (Y - T) \\
   I &= 200 \\
   G &= 100 \\
   \end{align*}
   \]
   a) Find out the equilibrium level of income.
   b) Suppose G increases to 125 what is the new equilibrium level of income?
   c) What level of G is needed to achieve a target income of 200?