COVENANT UNIVERSITY NIGERIA

TUTORIAL KIT
OMEGA SEMESTER

PROGRAMME: ECONOMICS

COURSE: ECN 121

DISCLAIMER

The contents of this document are intended for practice and leaning purposes at the undergraduate level. The materials are from different sources including the internet and the contributors do not in any way claim authorship or ownership of them. The materials are also not to be used for any commercial purpose.

DEPARTMENT OF ECONOMICS AND DEVELOPMENT STUDIES
COVENANT UNIVERSITY OTA
OMEGA SEMESTER 2014/2015

TUTORIAL QUESTIONS AND MODEL ANSWERS

ECN121: INTRODUCTION TO ECONOMICS (MACRO)

By
Dr. Urhie E., Dr. Ola-David O., Oluwatobi S., Alejo A., and Adediran O.

QUESTIONS

1) State four uses of macroeconomic models
2) Given a consumption function 40 + 0.75Y and an autonomous investment 60

   a) Find the equilibrium output, consumption and savings at equilibrium

   b) Show that at equilibrium spending equals output and savings leakages equals investment injection.

3) State five macroeconomic objectives and specify an appropriate goal for each.

4) Using an appropriate diagram fully explain the circular flow of income in an open economy.

5) Using appropriate examples distinguish between frictional and and structural unemployment
6) Graphically illustrate the concept of inflationary and deflationary gaps.
7) State three costs of economic growth
8) Algebraically illustrate the three sources of financing investment
9) Identify five importance of national income data

10) Distinguish between the following: i) Absolute income and relative income hypothesis

   (ii) income and life-time income hypothesis

a. List and explain three (3) types of unemployment.b) List and explain ways by which governments can reduce unemployment. C)What are the potential benefits of falling unemployment to the (i) unemployed individual (ii) economy (iii) government?

11) Write short notes on the following; i) international trade   ii) autarky   iii) factor proportions theory   iv) Leontief paradox v) import tariff   vi) import quota

12) Given the following structural equations for a 2-sector economy (in ₦b).
$$C = 100 + 0.75Y$$
$$I = 300$$
(i)   Calculate the equilibrium level of income (Y), consumption (C) and savings (S).
(ii)   If the full employment income is ₦5000b, by how much must investment change to bring the economy to the full employment level?
(iii)   What are the full employment levels of I, C and S.

13) State the rule of 72.

i). In how many years will it take income to double if it is rising each year by 2, 3 and 4 percent?
ii). Which country would have higher income in 36 years: country A that begins with income of ₦3,000, increasing at an annual rate of 4 percent a year or country B that begins with income of ₦ 6,000, increasing at an annual rate of 2 percent a year? Which will have higher income in 72 years?
iii) A country's income begins at ₦10,000 and rises to ₦20,000 in 18 years. What is the approximate annual rate of increase of income?

14) Explain the major types of inflation.

15) With vivid examples, distinguish between frictional and structural unemployment.

16) Briefly explain why Nations trade according to the following predictions:

i) Mercantilist   ii) Adam Smith   iii) David Ricardo   (5 marks each)

18) Answer the following questions using the table below.

	Real Output	Nominal Output	GDP deflator (2000=100)
1980	5161.92	2789.5	_____
1981	5291.61	_____	59.12
1982	_____	3255.0	62.73
1983	_____	_____	65.21
1984	5813.18	3933.2	_____

a. What is the GDP deflator in 1980?

b. What is nominal output in 1981?

c. What is real output in 1982?

d. Real output rose 4.5% in 1983. What was nominal output in 1983?

e. What was the GDP deflator in 1984?

f. Why are all the GDP deflators less than 100?

19) Consider the trade relations between Nigeria and Ghana as shown below:

	Yam	Banana
Nigeria	60	75
Ghana	120	150

i. Which has an absolute advantage in Yam?
ii. Which has an absolute advantage in Banana?
iii. Which has a comparative advantage in Banana
iv. Which has a comparative advantage in Yam?
v. Assume that Nigeria sells 700 tonnes of banana at $5 per tonnes to Ghana and buys 950 tonnes of Yam at $9 per tonne. What is Nigeria's trade balance? Is it a deficit or surplus?

20) From the information in the table below, calculate the following statistics.

Personal consumption	₦1,344
Investment	456
Net nonbusiness interest income	270
Government purchases	480
Profit	406
Employee compensation	1520
Net exports	24
Rents	2
Depreciation	278
Indirect business taxes	156
Corporate retained earnings	249

Net foreign factor income	5
Interest	98
Social Security taxes	150
Transfer payments	300
Personal taxes	214
Statistical discrepancy	0

a. Gross domestic product   b. Gross national product   c. Net domestic product

d. National income   e.   Personal income   f. Disposable personal income

SUGGESTED ANSWERS

1. Four uses of macroeconomic models
   - ✓ To explain macroeconomic issues
   - ✓ To contribute to theoretical debates
   - ✓ To predict macroeconomic phenomena
   - ✓ Basically the role of macroeconomic models is to predict the direction of change in macroeconomic variables as well as to analysis macroeconomic issues

3) State 5 macroeconomic objectives and specify a goal for each

   - ✓ Stable domestic price or minimal inflation.
   - ✓ Full employment or minimum unemployment
   - ✓ Rapid economic government/Goal: to achieve an average of 5% growth rate over the next 5 years.
   - ✓ Balance of payment equilibrium
   - ✓ Exchange rate stability

5) Frictional unemployment results from moving between jobs. This is a result of inadequate information about better job opportunities, going through the process of application through to taking on an appointment. For instance, if one resigns from a teaching appointment with the hope of picking up a job in an oil company but failed to secure the appointment…

   WHILE
   Structural unemployment is occasioned by structural changes in the economy, which render some workers unsuitable because of their skills do not match the new needs of the labour market. For example, technological advancement, which allows for the use of machines to displace manual labour?

7) State the costs of economic growth

   - ✓ Inflation
   - ✓ Externalities
   - ✓ Inequality

9) Significance of national income

   - ✓ Forms the basis of national policies
   - ✓ Used for economic planning
   - ✓ Used to access the economic growth of a country
   - ✓ To know how well each sector is performing
   - ✓ For comparison.

11) a. List and explain three (3) types of unemployment.

Hint: Explain the following and any other
  i.   Frictional unemployment
  ii.   Cyclical Unemployment
  iii.   Structural Unemployment
  iv.   Underemployment
  v.   Open Unemployment

b. List and explain ways by which governments can reduce unemployment.

Hint: Explain the following and any other
  i.   Providing a near perfect information system for the labour market (of job seekers and prospective employers)
  ii.   Stabilization policies, government policies intended to maintain full employment and a reasonably stable price level, can be used.
  iii.   Expansionary fiscal and monetary policies can be used.
  iv.   Provision of vocational training programs

c. What are the potential benefits of falling unemployment to the (i) unemployed individual (ii) economy (iii) government?

Hint: Explain the following and any other

  i.   Benefit to individual: income security; happiness; stable standard of living; skill development; increased entrepreneurial drive; fulfilment; good physical and mental health
  ii.   Benefit to economy: higher aggregate demand; reduced tendency for social conflict and crime ; increasing gross domestic product; increasing savings rate; increase in goods and services; high living standards; improved income distribution; reduction in inequality; can promote investment
  iii.   Benefit to government: higher tax income; reduced expenditure, reduced external borrowing; will spend less on unemployment benefits

13) Given the following structural equations for a 2-sector economy (in ₦b).
$$C = 100 + 0.75Y$$
$$I = 300$$
  i)   Calculate the equilibrium level of income (Y), consumption (C) and savings (S).
  ii)   If the full employment income is ₦5000b, by how much must investment change to bring the economy to the full employment level?
  iii)   What are the full employment levels of I, C and S.

  i)   C = 100 + 0.75Y

I = 300
Y = C + I = 100 + 0.75Y + 300
Y = 1600

C = 100 + 0.75(1600)
   = 100 + 1200 = 1300
S = Y – C
1600 – 1300 = 300

ii) ΔY = NEW INCOME – OLD INCOME

ΔY = 5000 – 1600 = 3400

ΔY = 1/1-b (ΔI)

ΔI = 3400 (1 – 0.75)
   = 850

iii)   Full employment level of I, C and S

$I = I + \Delta I$
$= 1150$

$C = 100 + 0.75(5000)$
$= 3850$

$S = Y - C$
$= 1150$

15) Major types of inflation

 Demand-Pull Inflation

Demand-pull inflation is an inflation that results from an initial increase in aggregate demand. Demand-pull inflation may result from any factor that increases aggregate demand. Two factors controlled by the government are increases in the quantity of money and increases in government purchases. A third possibility is an increase in exports.

Initial Effect of an Increase in Aggregate Demand

FIGURE 29.2 A Demand-Pull Rise in the Price Level

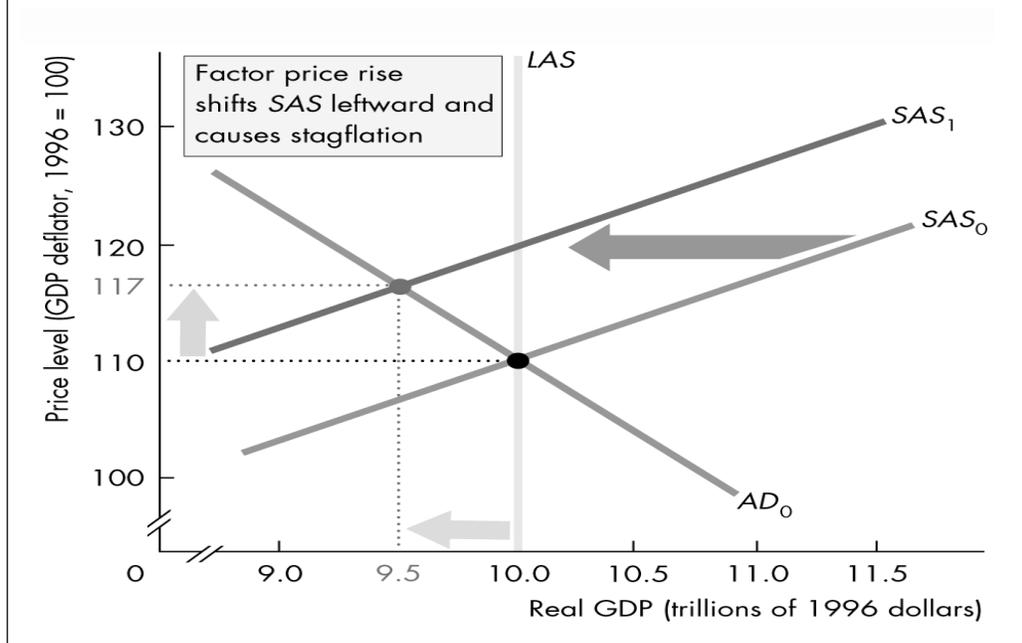(a) Initial effect

(b) Wages adjust
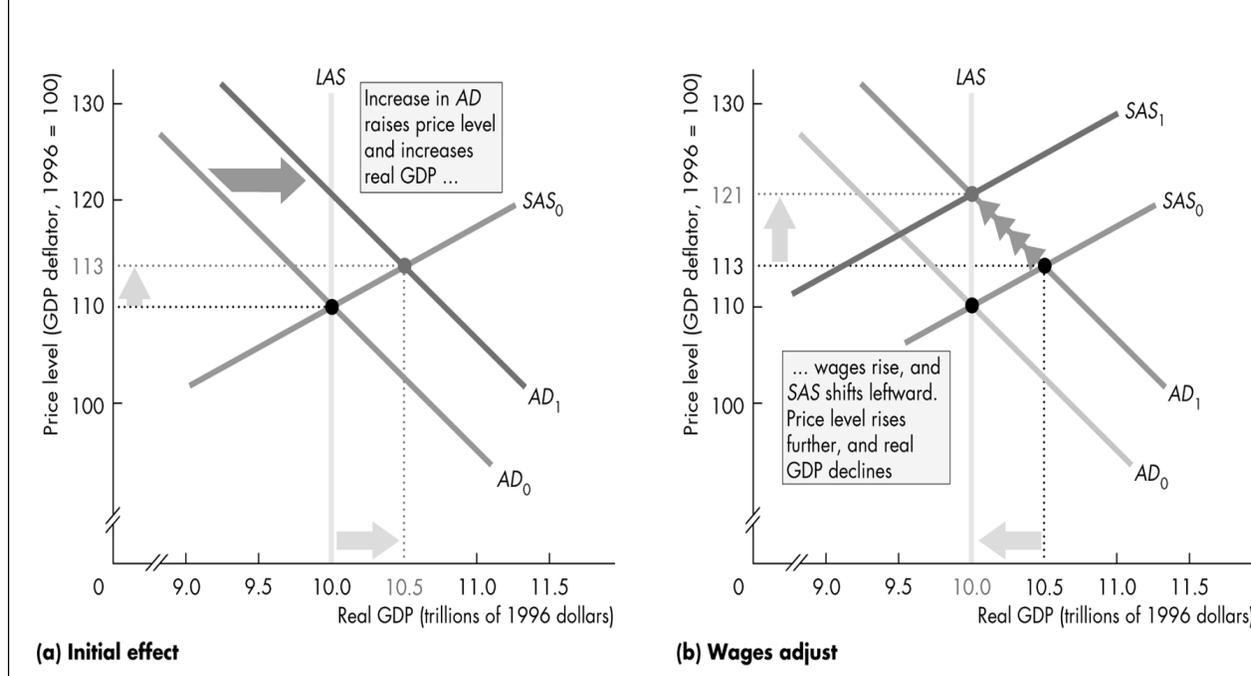
Starting from full employment, an increase in aggregate demand shifts the *AD* curve rightward. Real GDP increases, the price level rises, and an inflationary gap arise. The rising price level is the first step in the demand-pull inflation. The higher level of output means that real GDP exceeds potential GDP—an inflationary gap. The money wages rises and the *SAS* curve shifts leftward. Real GDP decreases back to potential GDP but the price level rises again. Aggregate demand keeps increases and the process just described repeats indefinitely. Although any of several factors can increase aggregate demand to start a demand-pull inflation, only an ongoing increase in the quantity of money can sustain it.

Cost-Push Inflation

Cost-push inflation is an inflation that results from an initial increase in costs. There are two main sources of increased costs: an increase in the money wage rate or an increase in the money price of raw materials, such as oil.

Initial Effect of a Decrease in Aggregate Supply

FIGURE 29.4   A Cost-Push Rise in the Price Level

The rising price level is the start of the cost-push inflation. The initial increase in costs a one- time rise in the price level, not inflation. To create inflation, aggregate demand must increase. The figure above illustrates an aggregate demand response to stagflation, which might arise because the Fed stimulates demand to counter the higher unemployment rate and lower level of real GDP.

The increase in aggregate demand shifts the *AD* curve rightward. Real GDP increases and the price level rises again.

2. **Unanticipated Inflation in the Labor Market:** Unanticipated inflation has two main consequences in the labor market.

a. it redistributes income and brings departures from full employment.

b. Higher than anticipated inflation lowers the real wage rate and employers gain at the expense of workers.

c. Lower than anticipated inflation raises the real wage rate and workers gain at the expense of employers.

d. Lower than anticipated inflation raises the real wage rate, decreases the quantity of labor demanded, and increases the unemployment rate.

e. Unanticipated inflation imposes costs on both workers and firms.

Unanticipated Inflation in the Market for Financial Capital

a. Unanticipated inflation has two main consequences in the market for financial capital: it redistributes income and results in too much or too little lending and borrowing.

b. If the inflation rate is unexpectedly high, borrowers gain but lenders lose.

c. If the inflation rate is unexpectedly low, lenders gain but borrowers lose.

d. When the inflation rate is higher than anticipated, the real interest rate is lower than anticipated, and borrowers want to have borrowed more and lenders want to have loaned less.

e. When the inflation rate is lower than anticipated, the real interest rate is higher than anticipated, and borrowers want to have borrowed less and lenders want to have loaned more.

17) Briefly explain why Nations trade according to the following predictions:

i) Mercantilist   ii) Adam Smith   iii) David Ricardo   (5 marks each)

i) Mercantilism

- ✓ Nations trade to increase their wealth
- ✓ To achieve this, they strive to increase the volume of gold and silver through increase in export and reduction of imports.
- ✓ Thus, nations trade to increase their wealth through trade surplus

ii) Adam Smith

- ✓ Nations trade because of absolute advantage

iii. David Ricardo

- ✓ Nations trade due to comparative advantage
- ✓

19)

i) Nigeria has an absolute advantage in yam since $60 < 1$

ii) Nigeria has ana absolute advantage in banana since $75 < 1$

iii.   None, since $75/60 = 150/120$

iv) None, since $60/120 = 75/150$

v) Trade balance $= X - M = 3500 \ 8500 = -5030$