

UNIVERSITY OF SWAZILAND
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
RE-SIT/ SUPPLEMENTARY EXAMINATION
JULY 2018

TITLE OF PAPER: PRINCIPLES OF MACROECONOMICS

COURSE CODE: ECO 102/ ECO 104 / ECON104 - IDE

TIME ALLOWED: 2 HOURS

INSTRUCTIONS: THE EXAM COMPRISES TWO (2) SECTIONS.

**QUESTION ONE (1) IN SECTION A IS COMPULSORY.
ANSWER ANY OTHER ONE (1) QUESTION.**

SECTION A

QUESTION ONE: COMPULSORY

PART I: MULTIPLE CHOICE QUESTIONS

WRITE THE CORRECT ANSWER IN YOUR ANSWER BOOKLET. (1 MARK EACH = 30 MARKS)

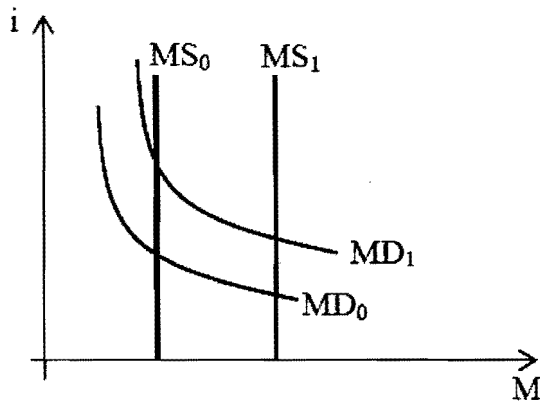
1. Assuming the money market is initially at equilibrium, a rightward shift in the demand for money curve will lead to:
 - a) a lower interest rate and the same quantity of money
 - b) a higher interest rate and the same quantity of money
 - c) a higher quantity of money but lower interest rates
 - d) a higher quantity of money but the same interest rate

2. When the Lilangeni depreciates against the dollar
 - a) export prices increase and import prices decrease
 - b) export prices decrease and import prices increase
 - c) export and import prices increase
 - d) export and import prices decrease

3. Which of the following actions by the government is most likely to increase the money supply in an economy?
 - a) Decreasing the RRR while selling bonds in the market.
 - b) Increasing the RRR while selling bonds in the market.
 - c) Buying bonds in the market.
 - d) None of the above would have any effect on the money supply.

4. An increase in consumer wealth will:
 - a) Shift the AD to the left
 - b) Result in no shift in the AD curve and a downward movement along a single AD curve
 - c) Result in no shift in the AD curve and an upward movement along a single AD curve
 - d) Shift the AD curve to the right
 - e) Have no impact upon the AD curve

5. Choose the option that correctly completes the following sentence:



Based on the diagram of the **nominal** money market above, the shift from ____ to ____ could have been caused by an increase in prices.

- a) MS_1 to MS_0
 - b) MD_0 to MD_1
 - c) MD_1 to MD_0
 - d) Both options A and B
6. Which of the following describes the relationship between GDP and government spending in an open economy?

- a) $\text{Government spending} = \text{GDP} + \text{consumption} + \text{private investment} - \text{export} - \text{imports}$
- b) $\text{Government spending} = \text{GDP} - \text{consumption} - \text{private investment} - \text{export} - \text{imports}$
- c) $\text{Government spending} = \text{GDP} - \text{consumption} - \text{private investment} + \text{export} + \text{imports}$
- d) $\text{Government spending} = \text{GDP} - \text{consumption} - \text{private investment} - \text{export} + \text{imports}$

Use the following information to answer questions 7 and 8.

Assume that Steve received E 1 500.00 from his grandmother in America and decided to deposit the money into his bank account at Beep Bank. The following table illustrates the money creation process due to Steve's deposit:

Commercial Bank	Acquired Reserves and Deposits (E)	Required Reserves (E)	Excess Reserves (E)	Amount Banks Can Loan Out (E)
Beep Bank	1 500.00	225.00	1 275.00	1 275.00
Swazi Bank	1 275.00	191.25	1 083.75	1 083.75
Standard Bank	1 083.75	162.56	921.19	921.19
First National Bank	921.19	138.18	783.01	783.01
Nedbank	783.01	117.45	665.56	665.56
Remaining transactions	4 437.05	665.56	771.50	3 771.50

7. If the banks are fully loaned out, the monetary multiplier is _____ and the maximum value of additional deposits that can be created from the initial E1 500 deposit is _____.

- a) 0.15; E 8 500.00
- b) 0.15; E 10 000.00
- c) 0.15; E 1 673.43
- d) 6.67; E 8 500.00

8. If, after Steve deposited his E 1 500 into Beep Bank, Beep Bank decided to use E 375 to repay a loan from the Central Bank and therefore only actually loaned out E 900 to the public, which of the following statements would be true:

- (i) The required reserve ratio is 40%.
- (ii) The new money created is E 6000.
- (iii) The money supply increased by E 7 500.
- (iv) The new money created is E 3 750.00.

- a) Only (i) and (iv) are correct.
- b) Only (iii) and (iv) are correct.
- c) Only (ii) and (iii) are correct.
- d) Only (i), (ii) and (iv) are correct.

9. Which of the following statements is/are *correct*?
- (i) Banks create money by holding some of their cash deposits in their vaults and the remainder with the central bank.
 - (ii) A single commercial bank can lend out more money than the amount initially deposited.
 - (iii) Both the granting of loans and buying of bonds allows the banking system to create money by a multiple of its excess reserves.
- a) Only (i) is correct.
 - b) Only (iii) is correct.
 - c) Only (i) and (ii) are correct.
 - d) Only (i) and (iii) are correct.
10. At all points on the 45° line:
- a) Equilibrium GDP is possible.
 - b) Aggregate expenditures exceed real GDP
 - c) Consumption exceeds investment
 - d) Aggregate expenditures are less than real GDP
11. The Aggregate Demand Curve slopes downwards because:
- a) Per-unit production costs fall as real GDP increases.
 - b) The income and substitution effects are at work.
 - c) Changes in the determinants of AD alter the amounts of real GDP demanded at each price level.
 - d) Decreases in the price level give rise to real-balances effects, interest-rate effects, and foreign purchases effects that increase the amounts of real GDP demanded.
12. Why does a fall in the price level increase the quantity of goods and services demanded?
- a) Businesses are able supply more output because some input costs are fixed in the short run.
 - b) Consumers are relatively wealthier and this shifts the aggregate demand curve.
 - c) Interest rates fall and this stimulates demand for imported goods.
 - d) Relatively cheaper domestic goods stimulate demand for net exports.

13. A depreciation in the value of the Lilangeni on the foreign exchange market is most likely to lead to:
- A fall in the Swazi price of imported goods
 - A rise in the foreign price of Swazi exports of sugar
 - A higher demand for imported laptops into Swaziland
 - A higher demand for Swazi exports of textiles and apparel
14. An appreciation of the Lilangeni would:
- Reduce the price of imported resources, lower input prices, and increase aggregate supply.
 - Increase net exports and aggregate demand.
 - Increase aggregate supply and aggregate demand
 - Reduce consumption, investment, net export spending, and government spending.
15. An increase in the money supply causes:
- Interest rates to fall, investment spending to rise, and aggregate demand to rise
 - Interest rates to rise, investment spending to rise, and aggregate demand to rise
 - Interest rates to rise, investment spending to fall, and aggregate demand to fall
 - Interest rates to fall, investment spending to fall, and aggregate demand to fall
16. Which of the following individuals is considered officially unemployed?
- Chris, who has not worked for more than three years and has given up on looking for work.
 - Kim, who is going to school full-time and is waiting until graduation before looking for a job.
 - Pat, who recently left his job to look for a different job in a different town.
 - Leslie, who retired after turning 65 only five months ago.
 - Lee, who is working 20 hours per week and is seeking full-time employment.
17. Based on the data below, what is the values of gross domestic product, in billions of dollars?

	National Economic Figures (billions of Emalangeni)
Consumption	3000
Government expenditure on goods and services	1000
Gross private domestic investment	700
Depreciation	300
Exports	300

Imports	500
Indirect business taxes	0

- (a) 4500
- (b) 4700
- (c) 4900
- (d) 5150
- (e) 5950

18. Which of the following best explains the increase in national income that results from equal increases in government spending and taxes?

- (a) Consumers do not reduce their spending by the full amount of the tax.
- (b) The government purchases some goods that consumers would have purchased on their own anyway.
- (c) Consumers believe that all tax cuts are transitory.
- (d) The increase in government spending causes a decrease in investment.
- (e) Consumers are aware of the tax increases but not increases in government spending.

19. An increase in which of the following would be most likely to increase long-run growth?

- (a) Pension payments
- (b) Unemployment compensations
- (c) Subsidies to businesses for purchases of capital goods.
- (d) Tariffs on imported capital goods .
- (e) Tariffs on imported oil.

20. The consumer price index (CPI) is designed to measure changes in the

- (a) Spending patterns of urban consumers only.
- (b) Spending patterns of all consumers.
- (c) Wholesale price of manufactured goods.
- (d) Prices of all goods and services produced in an economy.
- (e) Cost of a select market basket of goods and services.

21. Suppose that an economy with lump-sum taxes and no international trade, autonomous investment spending increases by E2 million. If the marginal propensity to consume is 0.75, equilibrium Income will change by a maximum of

- (a) 0.5 million
- (b) 1.5 million
- (c) 2.0 million
- (d) 8.0 million
- (e) 15.0 million

22. An appropriate fiscal policy to combat a recession is would be to increase which of the following?

- (a) Interest rates
- (b) The money supply
- (c) Taxes
- (d) Government spending
- (e) The sales of government bonds

23. An increase in which of the following is most likely to promote economic growth?
- Consumption spending
 - Investment tax credits
 - The natural rate of unemployment
 - The trade deficit
 - Real interest rates.
24. Which of the following will be counted as unemployed by the Labor Force Survey?
- Persons who quit their previous jobs to stay home to care for sick parents.
 - Persons who were laid off from previous jobs and have not applied for a job in two years.
 - Persons who were fired from their previous jobs and are actively looking for jobs after long searches.
 - Persons who have given up looking for jobs after long searches.
 - Persons who quit their previous jobs to start their own businesses.
25. Suppose that autonomous consumption is E400 and the marginal propensity to consume is 0.8. If disposable income increases by E1200, consumption spending will increase by
- 1600
 - 1360
 - 1200
 - 960
 - 400
26. Which of the following will lead to an increase in the GDP of Swaziland?
- More individuals prepare their own personal income tax forms.
 - Some citizens begin working in South Africa as computer programmers.
 - The government prohibits the sale of alcoholic beverages.
 - Foreign companies build new assembly plants in Swaziland
 - A million Swazi households sell their used cars to their children.
27. Which type of unemployment would increase if workers lost their jobs because of a recession.
- Cyclical
 - Frictional
 - Seasonal
 - Search
 - Structural
28. Which of the following is true about the marginal propensity to consume?
- It is the percentage of total income that is spent on consumption.
 - It determines the size of the simple spending multiplier
 - It increases as income increase because increases in income cause people to spend more.
 - It is the same as the money multiplier.
 - It is equal to the average propensity to consume for people with low incomes.
29. Based on the information in the table below, what is the unemployment rate for country X?
- Labor Market Data for Country X (in millions of persons)

population	180
Employed	94
Unemployed	6
Not in labor force	80
(a) 3.3%	
(b) 4.0%	
(c) 6.0%	
(d) 6.38%	
(e) 7.5%	

30. A decrease in business tax would lead to an increase in national income by increasing which of the following?

- (a) The money supply
- (b) Unemployment
- (c) Aggregate demand only
- (d) Aggregate supply only
- (e) Both aggregate demand and aggregate supply

PART II: TRUE OR FALSE STATEMENTS.

INDICATE 'TRUE' OR 'FALSE' IN YOUR ANSWER BOOKLET. (1 MARK EACH = 30 MARKS)

1. An increase in the reserve requirement increases the money multiplier and increases the money supply.
2. Credit cards are a form of money.
3. Cash holdings are part of the asset demand for money.
4. If banks decide to hold more excess reserves as a result of an increase in the discount rate, this action should decrease the money multiplier.
5. Money has 3 functions: it acts as a medium of exchange, a unit of account, and a hedge against inflation.
6. An increase in aggregate demand leads to an increase in output and the price level in the short run.
7. An increase in the interest rate increases the quantity demanded of money because it increases the rate of return on money.
8. The interest rate effect suggests that the AD curve slopes downward because an increase in the price level shifts money demand to the right, increases the interest rate, and reduces investment.
9. Whenever the economy enters a recession, its long-run AS curve shifts to the left.
10. A rise in price expectations that causes wages to rise causes the short run AS curve to shift left.

11. Money and wealth are the same thing.
12. Commodity money has value independent of its use as money.
13. Exchange rate depreciation stimulates demand for imports.
14. The selling of government bonds/ securities will increase the money supply.
15. A tax is regressive when the average tax rate decreases as income increases.
16. A new car produced in 1999, but first sold in 2000, should be counted in 2000 GDP because that is when it was first sold as a final product.
17. An increase in the price of military helicopters purchased by the Swaziland Government is captured in the CPI.
18. The base year in a price index is the benchmark year against which other years are compared.
19. If the unemployment rate falls can we be certain that more workers have jobs?
20. The unemployment rate is about the same for the various demographic groups: men, women, young and old.
21. Gross domestic product measures at their market values the total output of all goods and services produced in the economy during a year.
22. The total value added to a product and the value of the final product are equal.
23. The two approaches to the measurement of the gross domestic product yield identical results because one approach measures the total amount spent on the products produced by business firms during a year while the second approach measures the total income of business firms during the year.
24. Government purchases include spending by all units of government on the finished products of business but exclude all direct purchases of resources such as labor.
25. The net exports of an economy equal its exports of goods and services less its imports of goods and services
26. If nominal GDP for an economy is \$11,000 billion and the price index is 110, then real GDP is \$10,000 billion.
27. The external costs from pollution and other activities associated with the production of the GDP are deducted from total output.
28. Expansionary fiscal policy during a recession or depression will create a budget deficit or add to an existing budget deficit
29. A decrease in taxes is one of the options that can be used to pursue a contractionary fiscal policy.

30. To increase initial consumption by a specific amount government must reduce taxes by more than that amount because some of the tax cut will be saved by households

SECTION B

ANSWER EITHER QUESTION TWO (2) OR QUESTION THREE (3)

QUESTION TWO

(40 Marks)

(a) Assume the consumption schedule for an open economy is $C = 100 + 0.75Y$. Assume further that planned investment (I_g); net exports (X_n); and government spending (G) are independent of national income and constant at: $I_g = 35$; $X_n = 15$; $G = 100$.

- (i) Calculate the equilibrium level of income. [5]
- (ii) Assume I_g changes by 50, calculate the new equilibrium income. [5]
- (iii) Determine the value of the investment multiplier. [5]

(iv) You are a Swazi consumer who wants to buy a laptop produced in the United States of America. The price of the laptop is \$300. If the Lilangeni appreciates against the Dollar, will the laptop be cheaper or more expensive? Use a numerical example to explain. [5]

(b) Neverland is a country of 30 million people 2005. Out of the 30 million, ten million were older than 64 or younger than the minimum working age of 16. Of 20 million people between the ages 16 and 64, nine million did not want to work. Of those people that wanted to work, eight million were employed, while the remainder were unemployed. Based on the analysis answer the following questions:

- (i) What is the size of the labour force (Economically active population)? [1]
- (ii) What is the labour force participation rate? [2]
- (iii) How many people are unemployed? [2]
- (iv) What is the unemployment rate? [2]
- (v) It turns out that two million of the nine million people between the ages of 16 and 64 are classified as “not wanting to work” are in fact discouraged workers (that is people who want to work but are no longer looking for a job). Calculate the unemployment rate using the expanded definition of unemployment. [3]

(c) The CPI increased from 120 in 2005 to 130 in 2006 and to 140 in 2007. Using 2005 as the base year, calculate the inflation rates for the following periods:

- (i) 2006 [2]
- (ii) 2007 [3]
- (d) List any five types of unemployment. [5]

QUESTION THREE

(40 Marks)

- (a) Assume the economy of Swaziland is in a recession with high unemployment and low inflation.
- (i) Use a graph of aggregate demand and aggregate supply to illustrate the current situation. Be sure to include the AD curve, the short-run AS curve, and the long-run AS curve. [5]
 - (ii) Identify an open-market operation that would restore the economy to its equilibrium rate. [2]
 - (iii) Use a graph of the money market to illustrate the effect of this OMO. Show the resulting change in the interest rate. [5]
 - (v) Why does the money demand curve have a negative slope? [3]
 - (vi) State the direct tools that central banks use to control the money supply. [5]
- (b) What principles should govern the design of an efficient and equitable tax system in a country? [12]
- (c) Consider an imaginary economy called Keynesia, whose currency is the Key. The consumption function of Keynesia in the absence of taxes can be $C = 200 + 0.8Y$. Investment is autonomously set at 300. At this point there is no government.
- (i) Calculate the equilibrium level of income using the aggregate expenditure approach [4]
 - (iii) Present the equilibrium situation graphically. [3]
 - (iv) What is the value of the multiplier in this simple two sector economy? [1]