

**UNIVERSITY OF SWAZILAND**  
**FACULTY OF SOCIAL SCIENCES**  
**DEPARTMENT OF ECONOMICS**

**MAIN EXAMINATION**

**MAY 2017**

**TITLE OF PAPER: PRINCIPLES OF MACROECONOMICS**

**COURSE CODE: ECO 102/ ECO 104/ ECON 104/ IDE**

**TIME ALLOWED: 2 HOURS**

**INSTRUCTIONS: ANSWER QUESTION ONE (1) AND ANY TWO (2)  
OTHER QUESTIONS**

**QUESTION ONE CARRIES 40 MARKS**

**THE REST OF THE QUESTIONS CARRY 30 MARKS  
EACH**

## SECTION A: COMPULSORY

1. According to the wealth effect, aggregate demand slopes downward (negatively) because:
  - a. Lower prices increase the value of money holdings and consumer spending increases
  - b. Lower prices decrease the value of money holdings and consumer spending decreases
  - c. Lower prices reduce money holdings, increase lending, interest rates fall, and investment spending increases
  - d. Lower prices increase money holdings, decrease lending, interest rates rise, and investment spending falls
  
2. Which of the following would **not** cause a shift in the long-run aggregate supply curve?
  - a. An increase in the available labour
  - b. An increase in the available capital
  - c. An increase in the available technology
  - d. An increase in price expectations
  - e. All of the above shift the long-run aggregate supply curve
  
3. When the level of income is below the level of full-employment in the AD-AS model, a contractionary monetary policy will \_\_\_\_\_ the level of income and \_\_\_\_\_ the price level.
  - a. Increase, decrease
  - b. Decrease, decrease
  - c. Decrease, increase
  - d. Increase, increase
  
4. Which of the following statements is/are *correct*?
  - (i) Expectations of an economic downturn will likely lead to Swazis increasing their current savings.
  - (ii) If the expected rate of return exceeds the inflation rate then investment funded by borrowing is **always** expected to be profitable.
  - (iii) An increase in real interest rates and an increase in household debt cause a definite increase in current consumption spending.
  - a. Only (i) is correct.
  - b. Only (ii) is correct.
  - c. Only (iii) is correct.
  - d. (i), (ii) and (iii) are correct.
  - e. None of the statements are correct
  
5. If the reserve requirement is 25%, the value of the money multiplier
  - a. 0.25
  - b. 4

- c. 5
  - d. 25
6. Suppose all banks maintain a 100% reserve ratio. If an individual deposits E1000 of currency in a bank
- a. The money supply is unaffected
  - b. The money supply increases by more than E1000
  - c. The money supply increases by less than E1000
  - d. The money supply decreases by more than E1000
  - e. The money supply decreases by less than E1000
7. Given the following balance sheet, what is the largest new loan this bank can make if the reserve requirement is 10%?

Test Bank			
Assets	Liabilities		
Reserves	E150	Deposits	E1000
Loans	E850		

- a. E0
  - b. E50
  - c. E150
  - d. E1000
  - e. None of the above
8. Which of the following statements is/are correct?
- i. If the Central Bank wishes to increase the interest rate in the economy, it sells bonds on the open market and the  $M^s$  curve shifts to the left
  - ii. If the Central Bank wishes to increase the interest rate in the economy, it buys bonds on the open market and the  $M^s$  curve shifts to the left
  - iii. The demand for money function (or  $M^d$  curve) will shift because of changes in income and there will be a movement along the curve because of changes in interest rates.
  - iv. The demand for money function (or  $M^d$  curve) will shift because of changes in interest rates and there will be a movement along the curve because of changes in income.
- a. i and iii
  - b. i and iv
  - c. ii and iii
  - d. ii and iv
  - e. Only i
9. If the monetary authority wishes to use open-market policy to stimulate the economy, it should:

- a. Purchase domestic financial assets
  - b. Sell domestic financial assets
  - c. Increase cash reserve requirements
  - d. Increase government spending
10. If the money supply rises from E600 billion to E800 billion and nominal GDP stays unchanged at E4,800 billion, then the velocity of money:
- a. Rises by 33%
  - b. Falls by 33%
  - c. Rises from 6 to 8
  - d. Falls from 8 to 6
  - e. Remains unchanged
11. If the tax on soft drinks is E2 per 330ml, irrespective of the soft drink's selling price, then the tax is known as:
- a. A specific tax
  - b. A value-added tax
  - c. An ad valorem tax
  - d. A proportional tax
12. A tax such as value added tax (VAT) would generally be viewed as
- a. Progressive, because the consumption expenditure of the rich is greater than that of the poor
  - b. Regressive, because low-income households spend a greater proportion of their income on goods that attract VAT
  - c. Proportional, because the VAT rate is constant across goods that attract VAT
  - d. Progressive, because most goods consumed by poor households are zero-rated
  - e. Regressive, because the VAT burden increases as household income rises
13. Which of the following statements correctly explain built-in fiscal stabilizers?
- (i) Progressive income tax leads to more-than-proportionate increases in tax revenues as GDP increases.
  - (ii) Economic growth leads to lower government spending as less infrastructure is required.
  - (iii) An increase in GDP leads to a proportionate increase in the VAT rate.
  - (iv) Transfer payments decrease during economic expansion as employment rises.
- a. Only (i) is correct.
  - b. Only (i) and (iv) are correct.
  - c. Only (ii), (iii) and are correct.
  - d. Only (iv) is correct.
  - e. Only (i), (ii) and (iii) are correct
14. From the perspective of Swaziland, an increase (appreciation) in the nominal exchange rate will cause the following to happen:

- a. The Lilangeni becomes less expensive to foreigners
  - b. Foreign goods are more expensive to Swazis
  - c. Foreign currency is more expensive to Swazis
  - d. Swazi goods are more expensive to foreigners
  - e. Imports are more expensive
15. An intended goal of expansionary fiscal and monetary policy is
- a. A decrease in interest rates
  - b. A decrease in the price level
  - c. The equalization of the distribution of income
  - d. An increase in the level of aggregate output
16. During a period of high inflation, the Central Bank is likely to
- a. Decrease the money supply.
  - b. Lower the discount rate.
  - c. Buy treasury bonds on the open market.
  - d. Decrease the unemployment rate
17. In the AD-AS model, the simultaneous increase in interest rates and oil prices will result in:
- a. An increase in the price level and a decrease in the level of output
  - b. An increase in the price level, while the impact on output is uncertain
  - c. A decrease in both the price level and output
  - d. A decrease in the level of income, while the impact on the price level is uncertain
18. Which of the following statements is/are correct under a system of flexible or floating exchange rate?
- (i) The Central Bank does not use official reserves to manipulate the market.
  - (ii) Appreciation and depreciation of currencies is determined by the demand for and supply of those currencies.
  - (iii) Appreciation and depreciation of currencies can occur if there is a change in relative aggregate price.
  - (iv) Changes in government spending do not influence gross domestic product.
- a. Only (i) is correct.
  - b. Only (i) and (iii) are correct
  - c. Only (i), (ii), and (iii) are correct
  - d. Only (ii) and (iv) are correct
  - e. Only (iv) is correct
19. The exports of goods between Swaziland and the rest of the world are recorded in the \_\_\_\_\_ of the Swazi balance of payments, while the inflow of foreign direct investment is recorded in the \_\_\_\_\_.
- a. Current account, financial account

- b. Financial account, current account
  - c. Current account, change in reserves account
  - d. Financial account, change in reserves account
20. A depreciation of the Lilangeni against the US dollar will:
- a. Increase Swazi exports to the US and worsen the Swazi current account balance
  - b. Decrease Swazi exports to the US and improve the Swazi current account balance
  - c. Increase Swazi exports to the US and improve the Swazi current account balance
  - d. Decrease Swazi exports to the US and worsen the Swazi current account balance
21. If we say  $GPD = C + I + D + X - M$ , then GDP has been measured using the
- a) Expenditure method
  - b) Production method
  - c) Income method
  - d) Value-added method
22. If the newspaper reports that “the construction sector was responsible for 1.2% of the GDP growth”, then this implies that the GDP has been measured according to
- a) Expenditure method
  - b) Production method
  - c) Income method
  - d) Nominal prices method
23. In 2005 a country’s nominal GDP was SZL 500 billion. In 2006 the same country’s nominal GDP was SZL 600 billion. The inflation rate in 2006 was 17%. What is the approximate value of the country’s real GDP in 2006.
- a) SZL513 billion
  - b) SZL498 billion
  - c) SZL587 billion
  - d) SZL600 billion

You are provided with the following information to answer the next three questions:

Working-age population	30 million
Number of people Employed	10 million
Number of people unemployed	5 million
Not economically active	15 million

Of the 15 million people not economically active, 3 million are discouraged work-seekers.

24. What is the size of the labor force?
- a) 10 million
  - b) 15 million
  - c) 18 million
  - d) 30 million

25. What is the unemployment rate based on the strict definition of unemployment?
- 16.7%
  - 33.3%
  - 44.4%
  - 50.0%
26. What is the unemployment rate based on the expanded definition of unemployment?
- 16.7%
  - 33.3%
  - 44.4%
  - 50.0%
27. Full employment is defined as that level of employment when there is no
- Frictional, cyclical or structural unemployment
  - Frictional or cyclical unemployment
  - Cyclical or structural unemployment
  - Cyclical unemployment
28. Many unemployed Swazi's are unemployable because they do not have the skills that potential employers require. They can be considered to be
- Frictionally unemployed
  - Structurally unemployed
  - Cyclically unemployed
  - Seasonally unemployed
29. Who is hurt by inflation
- Fixed income earners
  - People who borrow money from the bank
  - Flexible income earners
  - Debtors
30. In the Keynesian aggregate expenditure model, if aggregate expenditure is greater than total output (production)
- Withdrawals from the circular flow are greater than injections into the circular flow
  - Inventories will build up and business will want to reduce their output
  - Inventories will be reduced and business will want to increase their output
  - Business will not change their output, but would increase the prices of their products and services
31. If real gross domestic product is SZL 200 billion and planned aggregate expenditure is SZL 210 billion, the inventories will
- Increase and output will decrease
  - Increase and output will increase
  - Decrease and output will decrease

- d) Decrease and output will increase
32. The consumption schedule shows that
- The marginal propensity to consume increases as GDP increases
  - Households increase their spending when their wealth increases
  - An increase in income leads to an equivalent increase in consumption expenditure
  - An increase in income increases consumption by an amount smaller than an increase in income.
33. John's monthly disposable income increases from SZL 2000 to SZL 2500. As a result his monthly saving increases from SZL 300 to SZL 450. This implies that his marginal propensity to consume is
- 0.30
  - 0.70
  - 0.76
  - 0.82
34. If a household's income falls from SZL10 000 to SZL 8000 and its consumption expenditure decreases from SZL 8000 to SZL 6000, then the marginal propensity to save is
- Zero
  - 0.25
  - 0.75
  - One
35. Cost-push inflation may be caused by
- a decline in per unit production costs
  - a decrease in wage rates
  - a negative supply shock
  - an increase in resource availability
36. Assume that Siphso is temporarily unemployed because he has voluntarily quit his job with UNISWA and will begin a better job with Swaziland Christian University. Siphso is considered as
- cyclically unemployed
  - frictionally unemployed
  - seasonal unemployed
  - employed
37. GDP may be defined as
- the monetary value of all goods and services (final, intermediate and non-market) produced in a given year
  - total resource income less taxes, savings and spending on exports
  - the economic value of all resources used in the production of a year's output
  - the market value of all final goods and services produced within a nation in a specific year.



38. GDP is equal to

- a)  $C + I + G + X - M$
- b)  $C + I + G - X + M$
- c)  $C + I + G + X + M$
- d)  $C + I + G - X - M$

39. If Thandi's disposable income increases from SZL1 200.00 to SZL 1 700.00 and her savings level from -SZL100. 00 to SZL100.00, her marginal propensity to

- a) save is 0.6
- b) consume is 0.5
- c) consume is 0.6
- d) consume is 0.1666

40. An example of a trade policy is:

- a) An increase in the government budget deficit because it reduces the country's net exports
- b) Capital flight because of an increase in the country's net exports
- c) A tariff on sugar
- d) All are examples of trade policy

## SECTION B

ANSWER ANY TWO QUESTIONS. EACH QUESTION CARRIES 30 MARKS

### QUESTION 1

Use the following information to answer sub-sections (a) – (c)

Merchandise exports	200
Net gold exports	80
Merchandise imports	250
Service receipts	100
Service payments	150
Income receipts	60
Income payments	90
(Net) current transfers	-30
Capital transfer account	0
Balance on financial account	100
Unrecorded transactions	0

- (a) Calculate the trade balance [3]
- (b) Calculate the balance on the current account. [5]
- (c) Indicate under which item of the current account each of the following transactions is recorded and whether it will increase or decrease the balance on the current account:
- You inherit some money from a deceased relative who lived in Australia. [2]
  - You receive profits from shares you own in Facebook, which is based in the United States of America. [2]
  - A car dealership in Matsapha, imports cars from Japan. [2]
  - You are Swazi, living in Manzini but you send some money to your relatives living in South Africa as they are facing hard times. [2]
  - Texray, a Swazi textile company, exports clothing to Canada. [2]
- (d) Assume that the Lilangeni/ US Dollar exchange rate is currently E7.50 to the USD. If the exchange rate were to change to E7.80 to the dollar, which currency has appreciated, and which has depreciated? [2]
- (e) Consider the Lilangeni/ US Dollar exchange rate and focus on the market for dollars. With the aid of a diagram, explain the effect of an expectation by market participants that the Lilangeni will depreciate against the dollar. [10]

### QUESTION TWO

- (a) 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]
- (b) Briefly explain the principles/ approaches often used to design taxes [15]
- (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]

### QUESTION THREE

(a) 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) Derive the saving function for Keynesia. [3]
- (ii) 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? [2]

(b) Out of the blue a government appears that does two things:

- (1) It buys goods and services to the value of 150; and
- (2) It imposes a tax of 10% (or 0.1) on the income of households

- (i) Derive a new consumption function of Keynesia. [5]
- (ii) Derive a new savings function of Keynesia. [4]
- (iii) If national income increases by one Key, by how much would the following increase? [4]
- Disposable income
  - Consumption
  - Saving
  - Taxes
- (iv) Present the new equilibrium level of income using the aggregate expenditure approach, in which you include the government sector. [5]