

NATIONAL UNIVERSITY OF LESOTHO
BA SUPPLEMENTARY EXAMINATIONS
EC1512 – PRINCIPLES OF MACROECONOMICS

August 2023

100 MARKS

3 HOURS

INSTRUCTIONS:

- 1.** Answer **all questions** in Section A
 - 2.** Answer **one question** from section B and **one question** from section C.
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SECTION A: Multiple Choice Questions

- 1) Which of the following questions can be answered using the concepts of macroeconomics?
- A) Why does the rate of economic growth fluctuate from year to year?
 - B) What is the difference between a public good and a private good?
 - C) What is the effect of an increase in price on the supply of a good?
 - D) Why do some firms produce differentiated goods?
- 2) Which of the following is likely to be included in a country's Gross Domestic Product in a particular year?
- A) The total amount steel used in the production of automobiles in that year
 - B) An unsold inventory of automobiles produced in that year
 - C) An unused stock of goods produced in the previous year
 - D) The total amount of flour used by bakeries to make bread in that year
- 3) A _____ occurs when a country's imports exceed its exports.
- A) fiscal deficit
 - B) budget surplus
 - C) trade surplus
 - D) trade deficit
- 4) The value of a country's exports during a particular year was \$610,000 and the value of its imports was \$995,000. Which of the following is true?
- A) The country ran a trade deficit of \$385,000 during that year.
 - B) The country ran a trade surplus of \$385,000 during that year.
 - C) The country ran a budget surplus of \$1,605,000 during that year.
 - D) The country ran a fiscal deficit of \$605,000 during that year.
- 5) Which of the following will lead to a decrease in the gross domestic product of a country, all other variables remaining unchanged?
- A) An increase in exports
 - B) An increase in imports
 - C) An increase in the expenditure on consumption
 - D) An increase in the expenditure on investment

Table 1 below shows the values of various economic variables of a country during a particular year.

Table 1: Macroeconomic data for a country

Variables	Value
Consumption	\$185,000
Investment	\$60,000
Government Expenditure	\$103,000
Exports	\$54,000
Imports	\$50,000

- 6) Refer to Table 1 above. The gross domestic product of the country is _____.
- A) \$452,000
 - B) \$402,000
 - C) \$554,000
 - D) \$352,000
- 7) Refer to Table 1 above. The trade balance of the country during that particular year was _____.
- A) -\$104,000
 - B) \$50,000
 - C) -\$6,000
 - D) \$4,000
- 8) The expenditure on consumption in Barotswana during a particular year was \$310,000, the expenditure on investment was \$180,000, the expenditure incurred by the government was \$75,000, the expenditure of foreign economic agents on domestic products was \$80,000, and domestic expenditure on foreign produced goods was \$103,000. What is the gross domestic product of Barotswana during that year?
- A) \$530,000
 - B) \$479,000
 - C) \$542,000
 - D) \$645,000
- 9) A bridge built by the government of Barotswana collapsed in the same year it was constructed. If the total cost of building the bridge was \$4 million, which of the following will happen as a result of its collapse?
- A) Barotswana's GDP will decrease.
 - B) Barotswana's GDP will remain unchanged.
 - C) Barotswana's trade deficit will increase.
 - D) Barotswana's trade surplus will increase.
- 10) The gross national product of a country for a certain year was \$340,000. If the contribution of its factors of production in the production of various goods and services in other countries was worth \$140,000 and the contribution of foreign factors of production in the production of goods and services in this country was worth \$50,000, the gross domestic product of the country for that year was _____.
- A) \$430,000
 - B) \$160,000
 - C) \$250,000
 - D) \$480,000
- 11) If the value of the output generated by a country's factors of production within the borders of foreign countries is higher than the value of output of foreign factors of production within its borders, _____.
- A) the GDP of the country is higher than its GNP
 - B) the GDP of the country is lower than its GNP
 - C) the GDP of the country equals its GNP
 - D) the GDP of the country equals its trade balance

12) The GDP deflator of a country in the base year was 100 and it is 130 in the current year. This implies that the prices of final goods and services produced in the country have increased by _____ between the two years.

- A) 30%
- B) 3%
- C) 10%
- D) 0.1%

13) The price of a given basket of goods in Year 1 was M1,300. The price of the same basket of goods in Year 2 was M1,560. The consumer price index for Year 2 taking Year 1 as the base year is _____.

- A) 101
- B) 120
- C) 156
- D) 100

14) Ms. Tauhali inherited a sum of \$30,000 in 2000. If the price index for 2000 was 100 and the price index for 2022 is 188, the value of the money she inherited in 2022 dollars is _____.

- A) \$56,400
- B) \$45,200
- C) \$38,800
- D) \$48,000

15) If the population of a country increases, while GDP remaining constant, then _____.

- A) income per capita will remain unchanged
- B) income per capita will decrease
- C) trade deficit will decrease
- D) gross national product will increase

16) The average income per capita of Lesotho is 75,000 units. If one US dollar is worth M20, the income per capita of Lesotho in dollars is _____.

- A) \$1,850
- B) \$2,500
- C) \$3,750
- D) \$15,000

17) A bundle of goods that costs \$1 in the U.S. is worth 5 units in Country A's currency. If Country A's GDP in its own currency is 5,000,000 units, Country A's GDP in purchasing power parity-adjusted dollars is _____.

- A) \$1,000,000
- B) \$2,500,000
- C) \$3,000,000
- D) \$50,000,000

18) The price of a given basket of goods in Country 1 is 10 karls. The price of the same basket of goods in Country 2 is 25 ritz and \$2 in the U.S. Country 1 has a income per capita of 3,200 karls and Country 2 has a income per capita of 5,500 ritz. Which of the following is true?

- A) The purchasing power parity-adjusted income per capita of Country 1 is \$3,500.
- B) The purchasing power parity-adjusted income per capita of Country 2 is \$5,800.
- C) The purchasing power parity-adjusted income per capita of Country 1 is higher than that of Country 2.
- D) The purchasing power parity-adjusted income per capita of Country 1 is lower than that of Country 2.

19) Suppose the price of a secondhand MacBook is \$500 in the U.S, and 30,000 lira in Türkiye. If a secondhand MacBook is representative of average prices within a country, then the price of a basket of goods worth \$1 in the U.S. costs _____.

- A) 0.17 lira in Türkiye
- B) 2 lira in Türkiye
- C) 60 lira in Türkiye.
- D) 100 lira in Türkiye

20) The income per worker of a country increases if _____.

- A) the country's GDP increases, all other variables remaining constant
- B) the country's GDP falls, all other variables remaining constant
- C) the number of children in the country aged below 15 increases
- D) the number of retired people in the country increases

21) The _____ nature of economic growth is one of the major reasons why there are large differences in GDP per capita across countries.

- A) linear
- B) exponential
- C) logarithmic
- D) quadratic

22) Consider two countries: country A and country B. At the beginning of year 2010, the GDP per capita in both countries is \$2,400. The annual growth rate of output in country A is 3%, while the annual growth rate of output in country B is 5%.

What will be the GDP per capita of country A at the beginning of year 2012?

- A) \$2,410.26
- B) \$2,546.16
- C) \$2,760.24
- D) \$2,800

23) Singapore had a GDP per capita of \$395 in 1960, and \$52,918 in 2013. The U.S had a GDP per capita of \$2,881 in 1960 and \$52,839 in 2013. Such a growth is referred to as:

- A) catch-up growth.
- B) sustained growth.
- C) instant growth.
- D) disguised growth.

24) Countries in sub-Saharan Africa are economically disadvantaged because infectious diseases spread in these countries relatively easily. This statement reflects the:

- A) culture hypothesis.
- B) geography hypothesis.
- C) institutions hypothesis.
- D) location hypothesis.

25) The unemployment rate is defined as the:
A) percentage of labor force that is unemployed.
B) percentage of total population that is unemployed.
C) percentage of civilian non-institutionalized population aged 12 or over that is unemployed.
D) percentage of civilian non-institutionalized population aged 14 or over that is unemployed.

26) Economic agents who borrow funds are known as:
A) creditors.
B) debtors.
C) receivers.
D) investors.

27) Credit is:
A) the loan that a debtor receives.
B) the income that an employee earns.
C) any good that is available for free.
D) any good that cannot be consumed but is used for the production of other goods

28) Which of the following statements is true?
A) Money that is lent out is considered to be a liability.
B) People who lend money are known as debtors.
C) People who borrow money are known as creditors.
D) Non-bank institutions are also a part of the credit market.

29) The additional payment a borrower has to make on a loan is referred to as:
A) credit.
B) stock.
C) interest.
D) principal

30) If an individual borrows \$200 at an annual rate of interest of 10%, what is the total amount that he will have to repay after one year?
A) \$20
B) \$200
C) \$210
D) \$220

31) When an asset is traded for goods and services it is serving the function of a _____.
A) store of value
B) unit of account
C) loanable fund
D) medium of exchange

32) When an asset enables people to transfer purchasing power into the future it serves the function of a _____.
A) store of value
B) unit of account
C) medium of exchange
D) means of deferred payment

- 33) Which of the following statements is true?
- A) One of the limitations of using money is that it does not allow for the transfer of purchasing power into the future.
 - B) The necessary condition required for money to function as a medium of exchange is that it also needs to be a store of value.
 - C) Hours of labor that go into producing a product is a better unit of account than paper money.
 - D) When money is used as a yardstick to describe the price of various goods and services, it is serving as a store of value.
- 34) In Economics, money supply is most commonly referred to as _____.
- A) M1
 - B) M2
 - C) M3
 - D) M4
- 35) In the United States, recessions are informally defined as _____ in real GDP.
- A) two consecutive quarters of negative growth
 - B) three consecutive quarters of negative growth
 - C) two consecutive quarters of positive growth
 - D) three consecutive quarters of positive growth
- 36) Which of the following falls during a boom?
- A) Unemployment
 - B) Gross Domestic Product
 - C) Consumption
 - D) Investment
- 37) Which of the following terms refers to an unusually severe, prolonged recession, typically with an unemployment rate that exceeds 20%?
- A) Depression
 - B) Inflation
 - C) Deflation
 - D) Depreciation
- 38) Which of the following is likely to happen if the level of technology used in an economy improves, assuming all else equal?
- A) The economy's labor demand curve will shift to the right.
 - B) The economy's labor demand curve will shift to the left.
 - C) There will be an upward movement along the labor demand curve.
 - D) There will be a downward movement along the labor demand curve.
- 39) The marginal product of a country's workers increases during summer due to the pleasant weather. Which of the following is likely to happen in this case, assuming all else equal?
- A) The country's labor demand curve will shift to the right in summer.
 - B) The country's labor demand curve will shift to the left in summer.
 - C) There will be an upward movement along the labor demand curve.
 - D) There will be a downward movement along the labor demand curve.

- 40) Which of the following economic variables is affected when the central bank adopts countercyclical monetary policy?
- A) Government spending
 - B) Personal income tax rates
 - C) Corporate tax rates
 - D) Interest rates
- 41) Which of the following economic variables is affected when the government adopts countercyclical fiscal policy?
- A) Government spending
 - B) Interest rates
 - C) Bank reserves
 - D) M2 measure of money supply
- 42) If the labor demand curve shifts to the right due to a government policy during a recession, and if wages are flexible, _____.
- A) real wages will increase
 - B) real wages will decrease
 - C) unemployment will increase
 - D) prices will fall
- 43) The _____ due to a countercyclical policy during a recession is _____ when wages are downwardly rigid than when wages are flexible.
- A) increase in employment; lower
 - B) increase in employment; higher
 - C) increase in taxes; higher
 - D) increase in interest rates; lower
- 44) Identify the correct definition of the federal funds rate.
- A) The federal funds rate is the interest rate at which banks lend their deposits with the Fed to other banks.
 - B) The federal funds rate is the interest rate at which the Fed lends money to households.
 - C) The federal funds rate is the interest rate at which the Fed lends money to business firms.
 - D) The federal funds rate is the interest rate at which banks lend money to the Fed.
- 45) Trade, both within and across national borders, _____.
- A) exploits absolute advantage
 - B) increases productive efficiency
 - C) discourages specialization in production
 - D) reduces interdependence among nations
- 46) A producer is said to have a comparative advantage in the production of a good when:
- A) the producer has a lower opportunity cost than another producer.
 - B) the producer has a higher opportunity cost than another producer.
 - C) the producer can produce more units of the good per hour than another producer.
 - D) the producer charges a higher price for the good than the other producers.

47) Mark can make 3 tables and 1 chair in a day while John can make 4 tables and 1 chair in a day. Which of the following is true?

- A) Mark has a comparative advantage in making tables.
- B) John has a comparative advantage in making chairs.
- C) Mark has an absolute advantage in making tables.
- D) John has an absolute advantage in making tables.

48) Which of the following is true of international trade?

- A) International trade in services is not allowed.
- B) International trade benefits all participants equally.
- C) International trade increases overall economic efficiency.
- D) International trade reduces the total surplus enjoyed by an economy.

49) Which of the following statements is correct?

- A) Transfer payments refer to the payments made to foreign firms.
- B) Imports refer to goods and services that are produced domestically and are consumed abroad.
- C) Exports refer to the goods and services that are produced domestically and are consumed abroad.
- D) Net exports are the value of the country's exports minus the value of its transfers.

50) Which of the following is most likely to discourage international trade?

- A) Lower income tax rates
- B) Higher export subsidies
- C) Higher import tariffs
- D) Lower interest rates

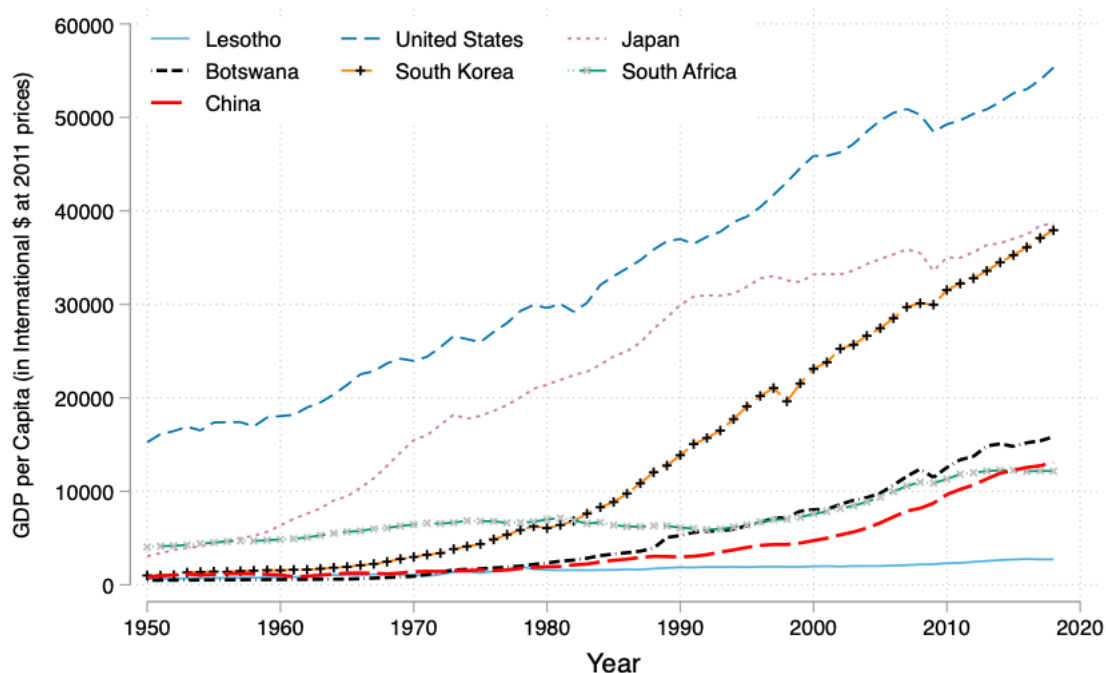
SECTION B

Question 1

Refer to Figure 1 below.

- a) Do you see any evidence of catch-up growth? If so, which countries are catching up and which ones are not? (7)
- b) What are the major factors that explain the differences in growth of the countries in this figure? (8)
- c) In 1963, Lesotho's GDP per capita was almost equal to that of China and greater than that of Botswana. In 2018, the GDP per capita of Botswana and China are more than 3 times larger than that of Lesotho. What do you think are the main factors that explain these dramatic developments? Explain. (10)

Figure 1: GDP per capita, 1950 to 2018



Source: Authors' representation using data from Our World in Data

Question 2

Suppose Lesotho produces only one good, sand stone. 10,000 sand stones were produced in Lesotho during 2022 and were sold at M42 per sand stone. The price of each sand stone of the good in 2014 was M37.

- a) Find the real and nominal GDP of Lesotho taking M37 as the base price. (5)
- b) Calculate the GDP deflator for Lesotho for 2022. (5)
- c) Several people from Zimbabwe migrated to South Africa due to political instability in their homeland. How has this affected the labour market in South Africa if labour

demand remained unchanged? Explain with a labour demand and labour supply diagram. (15)

SECTION C

Question 3

- a) Discuss the costs associated with inflation? (9)
- b) How do people form inflation expectations? (6)
- c) Before 2012, the open market operations were not well-developed in China. Its main tool of monetary policy was the reserve requirement. It required private banks to hold certain portion of their deposits, thereby reducing the amount of loans they could lend.
 - i) How would an increase in the reserve requirement have affected the demand curve for reserves? (4)
 - ii) If inflation was high, what would the Chinese banks do to lower the inflation rate — raise or reduce the reserve requirement? To answer this question, explain how change in the interest rate lowers the inflation rate and use the demand and supply of reserves graph to show how change in the reserve requirement affects the equilibrium overnight call rate (similar to federal funds rate). For simplicity, assume that the supply of reserves remains unchanged. (6)

Question 4

- a) What are the key categories on a bank's balance sheet? Illustrate using a table. (10)
- b) What is a bank run? (5)
- c) Explain how the equilibrium real interest rate and the equilibrium quantity of credit would change in each of the following scenarios, and illustrate your answer with a well-labeled graph of the credit market.
 - i) As the real estate market recovers from the 2007 – 2009 financial crises, households begin to buy more houses and condominiums, and apply for more mortgages to enable those purchases. (5)
 - ii) Congress agrees to a reduction in the federal deficit, which results in a significant decrease in the amount of government borrowing. (5)

