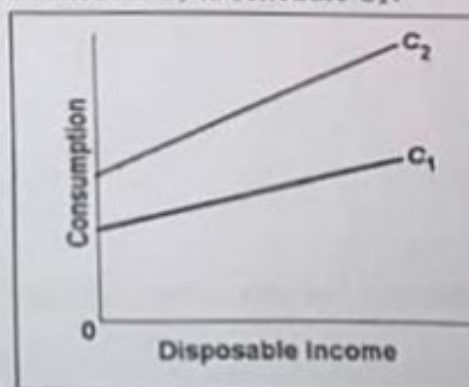


CHOOSE THE CORRECT ANSWER (45%)

1. Kamal is searching for a job, but he can't find because he does not have enough skills in technology. Kamal is considered to be:  
A. structurally unemployed  
B. frictionally unemployed  
C. cyclically unemployed  
D. employed
2. Unanticipated inflation:  
A. invariably leads to unemployment  
B. reduces the real incomes of flexible-income receivers  
C. has the same economic consequences as anticipated inflation  
D. D. redistributes income from creditors to debtors
3. If the natural rate of unemployment is 5.5% and the actual unemployment rate is 6%, then, according to Okun's law the GDP gap is:  
A. 6%  
B. 3%  
C. -1%  
D. -2%
4. In which of the following industries or sectors (قطاعات) of the economy will business cycle fluctuations like have the greatest effect on output?  
A. oil products  
B. textile products  
C. agricultural commodities  
D. capital goods
5. Potential GDP is defined as domestic production with:  
A. zero unemployment rate  
B. unemployment equal to frictional and structural unemployment  
C. zero cyclical unemployment  
D. B and C
6. The consumption schedule is:  
A. an inverse relationship between consumption and the price level  
B. a direct relationship between consumption and disposable income  
C. an inverse relationship between consumption and saving  
D. an inverse relationship between consumption and the tax rate
7. Which of the following might have caused the shift from consumption schedule  $C_1$  to schedule  $C_2$ ?  
A. An increase in disposable income  
B. An increase in household wealth  
C. An increase in household debt  
D. An increase in taxes
8. If consumption and disposable income are equal at a particular level of income:  
A. the MPC must be one at this point  
B. the MPS must be zero at this point  
C. the APC must be less than one at this point  
D. saving must be zero at this point



25. A restrictive fiscal policy can shift:
- A. the AD curve to the right
  - B. the AD curve to the left
  - C. the AS curve to the right
  - D. the AS curve to the left
26. The purchasing power of the dollar:
- A. increases with the rate of inflation
  - B. is inversely related to the price level
  - C. is directly related to the supply of money
  - D. is directly related to the price level
27. Writing a check to purchase a new computer is an example of using money primarily as a:
- A. unit of account
  - B. standard of value
  - C. medium of exchange
  - D. store of value
28. If the current interest rate is below the equilibrium rate:
- A. the money supply exceeds the quantity of money demanded
  - B. the money supply will increase and the interest rate will rise
  - C. the money supply will decrease and the interest rate will rise
  - D. the interest rate will rise and the quantity of money demanded will decrease
29. A decrease in the money supply will:
- A. raise interest rates, reducing planned investment and GDP
  - B. raise interest rates, increasing planned investment and lowering GDP
  - C. reduce interest rates, increasing planned investment and GDP
  - D. reduce interest rates, reducing planned investment and GDP
30. Which of the following is included in M2 but not M1?
- A. Currency held by banks
  - B. Small-denominated time deposits (less than \$100,000)
  - C. Credit card balances
  - D. Large time deposits (at least \$100,000)

## PART II/ SHORT ANSWER QUESTIONS

### Question 1 (6 points)

Complete the following table:

Year	CPI	Rate of annual inflation	Years to double
1	100		
2	108	_____	_____
3	120	_____	_____

### Question 2 (12 points)

Given the following data, compute what follows:

	Thousands of people
Labor force	400
Frictionally unemployed	10
Structurally unemployed	30
Cyclically unemployed	24

a. Total unemployment rate: .....

b. Natural rate of unemployment: .....

c. Use Okun's law to compute the GDP gap in percentage points:.....

If you know that potential GDP is \$200 billion, what is the value of the GDP gap?

ECO

ST

### Question 3 (22 points)

Given the following table of mixed closed economy:

Real GDP (billions)	C (billions)	I <sub>g</sub> (billions)	G (billions)	Taxes (billions)	Disposable Income (billions)	APC	Aggregate expenditures (billions)
\$ 80	\$60	\$10	\$30	\$20	\$		\$
120	90	10	30	20			
160	120	10	30	20			
200	150	10	30	20			
240	180	10	30	20			

- Complete the above table.
- What is the break-even income?
- What are the economy's MPC and MPS?
- What is the economy's multiplier?
- What is the equilibrium GDP?
- If the government decreased its expenditure by \$5 billion, what will be the equilibrium GDP?

...the economy is at the equilibrium GDP found in (e) and the government decreased taxes by \$3  
 ...what will be the equilibrium GDP?  
 ...the equilibrium GDP...

- a. Size of the labor force: .....
- b. Total unemployment rate: .....
- c. Labor force participation rate: .....

**Question 6: (11 points)**

Use this aggregate demand-aggregate supply schedule for a hypothetical economy to answer the following questions.

Real domestic output demanded (in billions)	Price level	Real domestic output supplied (in billions)
3000	350	5000
4000	300	6000
5000	250	7000
6000	200	8000
7000	150	9000
8000	100	10000

1. What will be the equilibrium price level and quantity of real domestic output?

.....

2. If the quantity of real domestic output demanded increased by \$2000 at each price level, what will be the new equilibrium price level and quantity of real domestic output?

.....

3. Using the original data from the table, if the quantity of real domestic output demanded increased by \$5000 and the quantity of real domestic output supplied increased by \$1000 at each price level, what would the new equilibrium price level and quantity of real domestic output be?

.....

PART III: THE GRADE OF THE FOLLOWING QUESTIONS  
GRADE OF THE SECOND EXAM

Question 5: (9 points)

Given the following data, compute the below national accounts:

	Thousands of people
Total Population	6,000
Under 16 or institutionalized	1,000
Out of the labor force	2,000
Unemployed	210

- a. Size of the labor force: .....
- b. Total unemployment rate: .....
- c. Labor force participation rate: .....

Question 6: (11 points)

Use this aggregate demand-aggregate supply schedule for a hypothetical economy to answer the following questions.

Real domestic output demanded (in billions)	Price level	Real domestic output supplied (in billions)
\$3000	350	\$9000
4000	300	8000
5000	250	7000
6000	200	6000
7000	150	5000
8000	100	4000

- a. What will be the equilibrium price level and quantity of real domestic output?

If the quantity of real domestic output demanded increased by \$2000 at each price level, what will be the new equilibrium price level and quantity of real domestic output?

the original

Question 3 (22 points)

Given the following table of mixed closed economy:

Real GDP (billions)	C (billions)	I <sub>g</sub> (billions)	G (billions)	Taxes (billions)	Disposable Income (billions)	APC	Aggregate expenditures (billions)
\$ 80	\$60	\$10	\$30	\$20	\$ _____	_____	\$ _____
130	90	10	30	20	30	_____	_____
180	120	10	30	20	40	_____	_____
230	150	10	30	20	_____	_____	_____
280	180	10	30	20	_____	_____	_____

- a. Complete the above table.
- b. What is the break-even income? .....
- c. What are the economy's MPC and MPS? .....
- d. What is the economy's multiplier? .....
- e. What is the equilibrium GDP? .....
- f. If the government increased its expenditure by \$3 billion, what will be the equilibrium GDP? .....
- g. Assume the economy is at the equilibrium GDP found in (e) and the government increased billion, what will be the equilibrium GDP? .....
- h. Assume the economy is at the equilibrium GDP found in (e) and the potential GDP is \$80 there be an inflationary or recessionary expenditure gap? By how much? .....

9. The change in GDP associated with a change in taxes is:
- equal to the change in taxes
  - smaller than—and opposite in sign to—that associated with an equal change in government spending
  - smaller than—and of the same sign as—that associated with an equal change in net exports
  - larger than—and opposite in sign to—that associated with an equal change in government spending
10. If inventories are increasing unexpectedly (مشكل غير متوقع) at the current level of GDP:
- GDP exceeds (يزيد عن) the level of current expenditures
  - GDP is at its equilibrium level
  - current expenditures exceed the level of GDP and GDP will increase
  - GDP is below its equilibrium level
11. When planned injections of investment, government spending, and exports equal leakages of saving, taxes, and imports:
- aggregate expenditures will equal GDP
  - consumption plus injections will be greater than aggregate expenditures
  - net exports will be zero
  - output will be below its equilibrium level
12. All else equal, if domestic consumers begin to spend a greater fraction (نسبة أكبر) of their consumption expenditures on foreign-produced goods:
- exports will also rise, offsetting the increase in imports
  - the multiplier will increase
  - aggregate expenditures and GDP will both increase
  - aggregate expenditures and GDP will both decrease
13. In a closed private economy, if aggregate expenditure is greater than the level of GDP:
- savings are greater than investment
  - investment is greater than savings
  - savings and investment are equal
  - can be either A or B
14. Which of the following can cause a shift in the aggregate demand curve to the left?
- a reduction in the price level
  - a reduction in aggregate supply
  - a decline in personal taxes
  - a decrease in government spending
15. A leftward shift of the short-run aggregate supply curve would illustrate:
- a positive GDP gap
  - cost-push inflation
  - demand-pull inflation
  - an inflationary gap
16. The aggregate demand curve slopes downward to the right:
- because a lower domestic price level reduces net exports
  - because of the income and substitution effects of lower prices
  - at low prices, but not at high prices
  - because a lower price level reduces the demand for money, which lowers the interest rate and investment



Question 4 (15 points)

Use the table below for the next set of questions. Column 1 shows the interest rate, column 2 shows the total demand for money and columns 3-5 show different levels of money supply. All quantities are in millions (\$).

(1)	(2)	(3)	(4)	(5)
Interest rate	$D_m$	$S_{m1}$	$S_{m2}$	$S_{m3}$
10%	\$1800	\$2100	\$2400	\$1800
8	1800	2100	2400	1800
6	2100	2100	2400	1800
4	2400	2100	2400	1800
2	2700	2100	2400	1800

Given the demand for money, what will be the equilibrium interest rate at the level of money supply  $S_{m1}$ ?

.....

If transaction demand for money was \$400 billion, what will be the asset demand for money at interest rate level of 4%?

.....

Assume the economy was in equilibrium at  $D_m$  and  $S_{m2}$ . If the central bank decides to change the money supply to  $S_{m3}$  and the interest rate stays the same, how much of a shortage or surplus in the money supply will there be?

.....

Assume the economy was in equilibrium at  $D_m$  and  $S_{m2}$ . If the central bank decides to change the money supply to  $S_{m3}$  what will be the new equilibrium interest rate.

What will happen to aggregate demand, GDP and price level when the central bank changes money supply from  $S_{m2}$  to  $S_{m3}$ . Is this an expansionary or restrictive monetary policy?

.....

.....

.....

.....

## PART II/ SHORT ANSWER QUESTIONS

### Question 1 (6 points)

Complete the following table:

Year	CPI	Rate of annual inflation	Years to double
1	100		
2	110	_____	_____
3	108	_____	_____

### \* Question 2 (12 points)

Given the following data, compute what follows:

	Thousands of people
Labor force	200
Frictionally unemployed	10
Structurally unemployed	8
Cyclically unemployed	16

a. Total unemployment rate: .....

b. Natural rate of unemployment: .....

c. Use Okun's law to compute the GDP gap in percentage points:.....

d. If you know that potential GDP is \$200 billion, what is the value of

- A contractionary fiscal policy is shown as a:
- A. rightward shift in the economy's aggregate demand curve.
  - B. rightward shift in the economy's aggregate supply curve.
  - C. movement along an existing aggregate demand curve.
  - D. leftward shift in the economy's aggregate demand curve.

27. Suppose that the economy experiences an excessively high rate of economic growth above the potential GDP and a high inflation rate. Which of the following policies would be most effective (أفضل)?
- A. Reduction in the tax rates on personal and corporate income.
  - B. Increase in the tax rates on personal and corporate income.
  - C. Reduction in government purchases.
  - D. Increase in government purchases.

### PART II: SHORT ANSWER QUESTIONS

1. Evaluate the effect of the following on the AD curve, AS curve, equilibrium price level and equilibrium output (increase, decrease, or unchanged). (10 points)

	Aggregate demand	Aggregate supply	Equilibrium price	Equilibrium output
Increase in tariffs (الضريبة الجمركية) on imported goods				
Increase in personal taxes				
Reduction of business taxes				
Contractionary monetary policy				
Technology improvement				

2. Suppose the aggregate demand and supply schedules for an economy are as shown below. (8 points)

Amount of real domestic output demanded	Price level (price index)	Amount of real domestic output supplied
\$ 200	300	\$1000
400	250	800
600	200	600
800	150	400

- a. What are the equilibrium price level and GDP?  
 GDP: .....  
 Price level: .....
- b. The government increased its spending by \$400, what will be equilibrium GDP?  
 GDP: .....  
 Price level: .....

the consumption schedule directly relates:  
consumption to the level of disposable income.  
saving to the level of disposable income.  
disposable income to domestic income.  
consumption to saving.

9. A decrease in the real interest rate will:
- A. increase the amount of investment spending along the investment demand curve.
  - B. shift the investment schedule downward.
  - C. shift the investment demand curve to the right.
  - D. shift the investment demand curve to the left.
20. In the aggregate expenditure model, if aggregate expenditures exceed (تتجاوز) GDP in a private closed economy:
- A. leakages will exceed injections.
  - B. planned investment will exceed saving.
  - C. unplanned investment in inventories will occur.
  - D. saving will exceed planned investment.
21. The aggregate demand curve is:
- A. vertical (عمودي) under conditions of full employment.
  - B. horizontal (أفقي) when there is considerable unemployment in the economy.
  - C. downward sloping because of the interest-rate, real-balances, and foreign purchases effects.
  - D. upward sloping because production costs decrease as real output rises.
22. An economy's aggregate demand curve shifts leftward or rightward by more than changes in initial spending because of the:
- A. net export effect.
  - B. wealth effect.
  - C. real-balances effect.
  - D. multiplier effect.
23. Which of the following would most likely reduce aggregate demand (shift the AD curve to the left)?
- A. A reduced amount of excess capacity.
  - B. Increased government spending on military equipment.
  - C. Domestic currency appreciation (ارتفاع قيمة العملة المحلية) relative to foreign currencies.
  - D. Increased consumer optimism (تفاؤل) regarding future economic conditions.
24. The determinants of aggregate supply:
- A. are consumption, investment, government, and net export spending.
  - B. explain why real domestic output and the price level are directly related.
  - C. explain why aggregate supply is vertical in the long run.
  - D. include resource prices and resource productivity.
25. Suppose that the economy is in the middle of a recession period. Which of the following policies is most likely to end the recession and stimulate (تحفز) output growth?
- A. Reductions in the wages of the public sector employees.
  - B. Reductions in agricultural subsidies.
  - C. Postponement (تأجيل) of a highway construction program.
  - D. Reductions in tax rates on personal and corporate income.

**WRITE MULTIPLE CHOICE QUESTIONS (54 Points)**

**WRITE YOUR ANSWERS ON THE FRONT PAGE**

1. GDP is the:
- A. national income minus all non-income charges against output.
  - B. monetary value of all final goods and services produced within the borders of a nation in a particular year.
  - C. monetary value of all economic resources used in producing a year's output.
  - D. monetary value of all goods and services, final and intermediate, produced in a specific year.
2. The total monetary value of all final goods and services produced in a particular country in 2010 is \$500 billion and the total monetary value of final goods and services sold (to  $\neq$ ) is \$450 billion. We can conclude that:
- A. GDP in 2010 is \$450 billion.
  - B. NDP in 2010 is \$450 billion.
  - C. GDP in 2010 is \$500 billion.
  - D. inventories in 2010 fell by \$50 billion.
3. If in some year gross investment was \$120 billion and net investment was \$65 billion, then in that year the country's capital stock:
- A. may have either increased or decreased.
  - B. increased by \$65 billion.
  - C. increased by \$55 billion.
  - D. decreased by \$55 billion.
4. In 2001, nominal GDP of a country increased but its real GDP declined. We can conclude that:
- A. nominal income declined by more than personal income.
  - B. the price level rose by more than nominal GDP.
  - C. real wages declined by more than real GDP.
  - D. the price level decreased by more than real GDP.
5. If real GDP was \$5,000 billion last year and is \$5,200 billion this year, the approximate rate of economic growth over the past year is:
- A. 0.2%
  - B. 0.4%
  - C. 4%
  - D. \$200 billion
6. Which of the following is *not* a supply factor in economic growth?
- A. the stock of capital
  - B. technological advance
  - C. the size and quality of the labor force
  - D. aggregate expenditures of households, businesses, and government
7. Economic growth can be portrayed as:
- A. an outward shift of the production possibilities curve.
  - B. an inward shift of the production possibilities curve.
  - C. a movement from a point *on* to a point *inside* a production possibilities curve.
  - D. a movement from one point to another point on a fixed production possibilities curve.
8. Labor productivity is measured by:
- A. the ratio of capital to labor.
  - B. real output per worker hour.
  - C. real output per capita.
  - D. the ratio of worker hours to real GDP.

naled) has just finished school and is searching for his first job. He is considered to be:  
structurally unemployed  
frictionally unemployed  
cyclically unemployed  
J. employed

10. Suppose nominal GDP in the base year was \$380 billion. Five years later, nominal GDP was \$456 billion and the GDP price index was 120. Over those five years, real GDP:  
A. increased by \$20 billion  
B. increased by \$96 billion  
C. increased by \$80 billion  
D. did not change
11. The GDP gap measures the difference between:  
A. NDP and GDP.  
B. NI and PI.  
C. actual GDP and potential GDP.  
D. nominal GDP and real GDP.
12. If the natural rate of unemployment is 5.5% and the actual unemployment rate is 6.5%, then, according to Okun's Law the GDP gap is:  
A. 1%  
B. 3%  
C. -1%  
D. -2%
13. The phase of the business cycle in which real GDP declines is called:  
A. the peak.  
B. an expansion.  
C. a recession.  
D. the trough.
14. Which of the following statements is true about causes (أسباب) of business cycle fluctuations (تقلبات)؟  
A. Economists all agree that supply shocks are the cause of most business cycle fluctuations.  
B. Economists all agree that productivity shocks are the cause of most business cycle changes.  
C. Economists all agree that monetary changes are primarily responsible for business cycle fluctuations.  
D. All the above can be causes of business cycle movements.
15. Which of the following would most likely move the economy into a recession in the short term?  
A. Invention (اختراع) of a new product that most consumers want to buy.  
B. Innovations (ابتكارات) in management that enhance (تشجع) worker productivity.  
C. The central bank reduced money supply more than was anticipated.  
D. Government decision to reduce personal income tax rates.
16. The consumer price index was 177.1 in 2001 and 179.9 in 2002. Therefore, the rate of inflation in 2002 was about:  
A. 2.8 percent.  
B. 3.4 percent.  
C. 1.6 percent.  
D. 4.1 percent.
17. If the rate of inflation is 11 percent per year, the price level will double in about:  
A. 4 years.  
B. 6 years.  
C. 10 years.  
D. 12 years.

- A contractionary fiscal policy is shown as a:
- rightward shift in the economy's aggregate demand curve.
  - rightward shift in the economy's aggregate supply curve.
  - movement along an existing aggregate demand curve.
  - leftward shift in the economy's aggregate demand curve.

27. Suppose that the economy experiences an excessively high rate of economic growth above the potential GDP and a high inflation rate. Which of the following policies would be most effective (أفضل)?
- Reduction in the tax rates on personal and corporate income.
  - Increase in the tax rates on personal and corporate income.
  - Reduction in government purchases.
  - Increase in government purchases.

### PART II: SHORT ANSWER QUESTIONS

1. Evaluate the effect of the following on the AD curve, AS curve, equilibrium price level and equilibrium output (increase, decrease, or unchanged). (10 points)

	Aggregate demand	Aggregate supply	Equilibrium price	Equilibrium output
Increase in tariffs (الضريبة الجمركية) on imported goods				
Increase in personal taxes				
Reduction of business taxes				
Contractionary monetary policy				
Technology improvement				

2. Suppose the aggregate demand and supply schedules for an economy are as shown below. (8 points)

Amount of real domestic output demanded	Price level (price index)	Amount of real domestic output supplied
\$ 200	300	\$1000
400	250	800
600	200	600
800	150	400

- What are the equilibrium price level and GDP?  
 GDP: .....  
 Price level: .....
- The government increased its spending by \$400, what will be equilibrium GDP?  
 GDP: .....  
 Price level: .....

- D) An increase in disposable income
18. Which of the following statements is TRUE?
- A) An increase in imports, other things constant, would tend to fall in equilibrium level of GDP. ✓
- B) An increase in exports has the same effect on equilibrium GDP as an equal decrease in government purchases. ✓
- C) Balance budget multiplier equal 1
- D) All statements are true
- $x \uparrow \rightarrow GDP \uparrow$  d.

19. At break-even income:
- A) Consumption = saving
- B) Saving = 1
- C) APC = 1
- D) All of the above

$$APC = 1 - \frac{APS}{0}$$

20. As disposable income decreases the APC \_\_\_\_\_ and APS \_\_\_\_\_
- A) Falls; falls
- B) Falls; rises
- C) Rises; rises
- D) Rises; falls

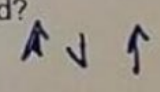
21. Depreciation of domestic currency
- A) Make prices of domestic goods equal prices of foreign goods that leads to increase in net exports ✓
- B) Make foreign goods cheaper (البضائع الأجنبية أرخص) than domestic goods that leads to increase in net exports ✗
- C) Make domestic goods cheaper than foreign goods that leads to increase in net exports ✗
- D) Depreciation of domestic currency does not affect net exports

22. Consumption is \$141 billion, gross investment is \$15 billion, and saving is \$15 billion in a private closed economy. At this level:

- A) Leakage is less than injection
- B) There will be unplanned increases in inventories (change in inventory positive)
- C) The economy is in equilibrium
- D) Leakage is greater than injection

$GDP \rightarrow 141$   
 $S \rightarrow 15$   
 $I \rightarrow 15$

23. Which of the following will NOT tend to shift the consumption schedule upward?
- A) higher level of household borrows (زيادة كمية القروض)
- B) The expectation of a recession (توقع بحدوث ركود)
- C) Interest rate fall
- D) Increase in the amount of wealth held by households (زيادة مقدار الثروة التي تحتفظ بها الأسر)



24. Which event would most likely decrease an economy's net exports?
- A) An increase the prosperity of trading partners for this economy (ثراء الشركاء التجاريين)
- B) A depreciation of a nation's currency relative to foreign currencies
- C) A decline in the tariff (التعرفة الجمركية) on products imported from abroad ↓
- D) All of the above

25. firm invests in a new machine that costs \$2,000 a year but which is expected to produce an increase in total revenue of \$2,200 a year. The current real rate of interest is 8 percent. The firm should:
- A. Undertake the investment because the expected rate of return of 9 percent is greater than the real rate of interest
- B. Not undertake the investment because the expected rate of return of 7 percent is less than the real rate of interest
- C. Undertake the investment because the expected rate of return of 12 percent is greater than the real rate of interest
- D. Undertake the investment because the expected rate of return of 10 percent is greater than the real rate of interest

$$\frac{2200 - 2000}{2000} = 0.1$$



8. The investment demand curve suggests:
- There is a direct (علاقة طردية) relationship between disposable income and the level of investment spending.
  - There is a direct relationship between interest rate and the level of investment spending.
  - There is an inverse relationship (علاقة عكسية) between interest rate and the level of investment spending.
  - There is an inverse relationship between expected rate of return and the level of investment spending.
9. If a lump-sum tax of \$60 billion is levied (فرضت) at each level of income and the MPC is 0.90, then consumption:
- Increase by 54
  - Increase by 600
  - Decrease by 54
  - Decrease by 600
- $MPC \times T$      $\uparrow T$      $\downarrow C$
10. If the stock of available capital goods in hand in the economy is running too high (إذا كان مخزون السلع الرأسمالية المتاحة في متناول) (اليد في الاقتصاد مرتفع للغاية), then the:
- Consumption schedule will shift upward
  - Consumption schedule will shift downward
  - Investment demand will shift to the right
  - Investment demand will shift to the left
11. Suppose the MPC = 0.75, equilibrium GDP = 900 billion, and the government decrease taxes by \$50 billion. What is the new equilibrium GDP?
- GDP = \$750 billion
  - GDP = \$937.5 billion
  - GDP = \$950 billion
  - GDP = \$1,050 billion
- $\Delta GDP = m \times T$      $m = \frac{-MPC}{1-MPC}$
12. In an inflationary expenditure gap, the equilibrium level of GDP is:
- Greater than full-employment GDP
  - Less than full-employment GDP
  - Less than aggregate expenditures
  - Greater than aggregate expenditures
13. In private open economy,
- $AE = C + I_g + X_n$
  - $AE = C + I_g + G + X_n$
  - $AE = C + I_g + G$
  - $AE = C + I_g + G + T$
14. If the interest rate rises, then
- Aggregate expenditure (AE) will shift upward and increase in equilibrium GDP
  - Aggregate expenditure (AE) will shift downward and increase in equilibrium GDP
  - Aggregate expenditure (AE) will shift upward and decrease in equilibrium GDP
  - Aggregate expenditure (AE) will shift downward and decrease in equilibrium GDP
15. In mixed open economy, Injections are:
- Gross investment, government purchases, and exports
  - Saving, taxes, and imports
  - Imports, taxes, and government purchases
  - Saving, taxes, and gross investment
- $X \quad I_g \quad I_n$
16. Assuming that MPC is 0.80, equal increases in government spending (G) and tax collections (T) by \$20 billion will:
- Leave the equilibrium GDP unchanged
  - Increase the equilibrium GDP by \$20 billion
  - Increase the equilibrium GDP by \$180 billion
  - Reduce the equilibrium GDP by \$180 billion
- $m = \frac{1}{1-MPC} = 100$
17. Assume the economy's consumption and saving schedules simultaneously (في نفس الوقت) shift downward. This must be the result of:
- An increase in household wealth
  - An increase in income taxes
  - The expectation of a recession

## PART II: Short Answer questions

## Question #1

1. Refer to the information provided in the table below to answer the questions that follow. *Show your work*

GDP = DI	C	I <sub>g</sub>	G	Export	Imports	AE $C+I_g+G+Ex-Im$
500	520	20	25	15	20	560
550	550	20	25	15	20	590
600	580	20	25	15	20	620
650	610	20	25	15	20	650
700	640	20	25	15	20	680
750	670	20	25	15	20	710

2. Complete the table (Assume that  $T = 0$ )

3. What is the break-even income?  $DI = C \Rightarrow 550$

4. At \$500 level of disposable income, what is APC?  $APC = \frac{C}{DI} = \frac{520}{500} = 1.04$

5. What is the equilibrium level of GDP?  $650$

6. At 700 level of GDP, what is the value of change in inventory?  $700 - 640 = 60$  inventory surplus

7. At equilibrium GDP what is the value of leakages?  $Y - C - I = 650 - 610 = 40$  inventory surplus

$\Delta$  change  $60 - 40 = 20$  inventory surplus

$S + M + T = I + DI = S + C \Rightarrow 650 = 610 + S \Rightarrow S = 40$

$T = 0, \Rightarrow$  Leakage  $= S + M = 40 + 20 = 60$

8. Calculate MPC and multiplier?

$$MPC = \frac{\Delta C}{\Delta DI} = \frac{610 - 580}{650 - 600} = \frac{30}{50} = 0.6$$

$$M = \frac{1}{1 - MPC} = \frac{1}{1 - 0.6} = 2.5$$

9. Suppose that  $I_g$  decrease by 12, what is the new equilibrium GDP?

$$\Delta GDP = M \times \Delta I \Rightarrow \Delta GDP = 2.5 \times 12 = 30 \quad \Delta I \downarrow \text{GDP}$$

$$\text{New eq GDP} = 650 - 30 = 620$$

GDP AE

10. Suppose that full employment level of output is 700. Is there an inflationary gap or recessionary gap? Why? How much is the size of this gap?

recessionary gap, since full employment GDP  $>$  AE

$$\text{The GDP gap size} = GDP - AE = 700 - 650 = 50$$

$$700 - 680 = 20$$

Question #2

(15) (15 Points)

Assume that government spending on goods and services (G) is \$200 million, tax (T) is 280 million, and the equilibrium GDP is 1,000 million. Assume that the MPC were 0.75.

1. Calculate the effect of each of the following on GDP? (Calculate new GDP)? Show your work

A. Government spending (G) increase to \$260 million

$$\Delta G = 260 - 200 \Rightarrow 60, \quad m = \frac{1}{1 - MPC} = \frac{1}{1 - 0.75} \Rightarrow \frac{1}{0.25} = 4$$

$$\Delta GDP = m \times \Delta G = 4 \times 60 = 240 \Rightarrow \Delta G \uparrow, \Delta GDP \uparrow$$

$$\text{new eq GDP} = 1000 + 240 = 1240$$

B. Taxes increase to 300 million.

$$m_t = \frac{-MPC}{1 - MPC} = \frac{-0.75}{0.25} \Rightarrow -3$$

$$\Delta GDP = m_t \times \Delta T \Rightarrow -3 \times (300 - 280) = -3 \times 20 = -60$$

$$\uparrow T, \Delta GDP \downarrow$$

$$\text{new eq GDP} = 1000 - 60 = 940$$

2. Both Government spending (G) and Taxes (T) increases by 40.

New GDP will increase by 40,  $\Rightarrow 1000 + 40 \Rightarrow 1040$

for more explanation

$$\Delta GDP = m \times 40 = 160 \Rightarrow \text{GDP} = 1000 + 160 = 1160$$

$$\Delta GDP = m_t \times \Delta T = -3 \times 40 = -120 \Rightarrow \text{GDP} = 1000 - 120 = 880$$

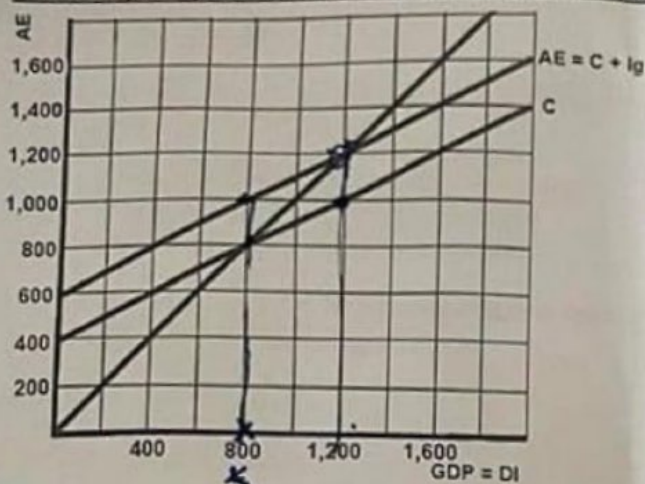
$$\text{eq GDP} = \text{old eq} + \Delta GDP(G) - \Delta GDP(T) = 1000 + 160 - 120 = 1040$$

**PART A: Multiple Choice**

1. The value of multiplier ( $m$ ) decreases when
- A) The marginal propensity to save decreases
  - B) The marginal propensity to consume decreases
  - C) Tax rates are reduced
  - D) Government spending increases

$\frac{1}{MPS}$        $\frac{1}{1-MPC}$  ↑

The next four questions (2, 3, 4 and 5) refer to the following figure



$C = DI$   
 $1200 - 100 = 200$

2. What is the amount of autonomous consumption and break-even income?
- A) Autonomous consumption = 400, break-even income = 1,200
  - B) Autonomous consumption = 0, break-even income = 400
  - C) Autonomous consumption = 300, break-even income = 600
  - D) Autonomous consumption = 400, break-even income = 800

3. At the equilibrium GDP, what is the value of gross investment ( $I_g$ )?
- A) 100
  - B) 200
  - C) 300
  - D) 400

$m = \frac{1}{1-0.5}$   
 $MPC = \frac{\Delta C}{\Delta Y} = \frac{200}{400} = 0.5$

4. What is the value of MPC and multiplier ( $m$ )?
- A) MPC = 2       $m = 0.5$
  - B) MPC = 0.5       $m = 2$
  - C) MPC = 0.75       $m = 4$
  - D) MPC = 0.8       $m = 5$

$\frac{1000-800}{1200-800} = \frac{200}{400} = 0.5$   
 $\frac{1200-800}{1200-800} = 1$

5. Suppose that the full employment level of GDP is equal 800, would there be a recessionary gap or inflationary gap? How much is the size of this gap?
- A) Recessionary gap by 200
  - B) Recessionary gap by 1,000
  - C) Inflationary gap by 1,000
  - D) Inflationary gap by 200

6. As disposable income decreases, consumption:
- A) and saving both increase.
  - B) and saving both decrease.
  - C) decreases and saving increases.
  - D) increases and saving decreases.

7. In a private closed economy
- A)  $AE = C + I_g + G$
  - B) There will be an unplanned increase in inventories when GDP less than aggregate expenditures (AE)
  - C) At the equilibrium GDP, saving equal investment
  - D) All of the above

$S = I$        $\times$  GDP

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**INSTRUCTIONS:**

1. The exam lasts 1.5 hour.
2. The exam is worth 100 points in total: 50 points for the multiple choice questions (Part A) and 50 points for three analytical problems (Part B).
3. Write your answers for part A (the multiple choice section) in the blanks below. You won't get credit for circled answers in the multiple choice section.
4. Place all of your answers for part B in the space provided. You must show your work for part B questions.

Good luck!

**PART A: Multiple Choice Problems**

Answer multiple choice questions in the space provided below.  
USE CAPITAL LETTERS.

1.	B	6.	B	11.	D	16.	<del>A</del> B	21.	C
2.	D	7.	C	12.	A	17.	<del>E</del> B	22.	C
3.	B	8.	C	13.	A	18.	<del>D</del> A	23.	B
4.	B	9.	C	14.	D	19.	C	24.	C
5.	D	10.	D	15.	A	20.	D	25.	D

50