

## Module 2 Summer 20

1. Discuss what happens in an expansionary phase of the business cycle with respect to borrowing, liquidity and psychological outlook. Explain why to the liquidity answer.

2. For each, state whether the unemployment is structural, frictional, seasonal or cyclical.

a. As the United States becomes a more high-tech producer, labor-intensive factories no longer need as many workers

b. Unemployment rises as output in the economy slows.

c. Unemployment rate rises as the tourism months come to an end.

d. As it becomes more acceptable for mothers to work, more women enter the labor market looking for work. The unemployment rate rises.

e. The demand for workers in the southwest increases as more people search for work in the north-east.

3. Calculate the following given the information about the economy in the table: Show work

Total population 236 Million

Those in institutions: 10 Million

Those in the military: 17 Million

Under the age of 16: 23 Million

Those who are unwilling or unable to (voluntarily idle): 42 million

Employed: 140 Million

Those seeking employment: 4 Million

a. Labor force. \_\_\_\_\_

b. Unemployment rate. \_\_\_\_\_ (go out two decimals) Show work.

New unemployment rate when 2 million employed workers are sent off to prison: \_\_\_\_\_ (show work)

4. Create a price index for NY Giants fans using the following basket of goods with 2019 prices as the base year. Show work.

| Quantities             | Price per unit 2019 | Price per unit 2020 |
|------------------------|---------------------|---------------------|
| 10 boxes of face paint | \$4.00              | \$4.50              |
| 2 jerseys              | \$30.00             | \$31.00             |
| 6 game tickets         | \$65.00             | \$70.00             |

5. Calculate the following based on this information about an economy in 2017, 2018, and 2019: Show work.

|                                      | 2017   | 2018   | 2019   |
|--------------------------------------|--------|--------|--------|
| Nominal GDP (in billions of dollars) | \$6400 | \$7600 | _____  |
| GDP deflator (base year 2015)        | 89     |        | 106    |
| Real GDP                             | _____  | _____  | \$8800 |

- Nominal GDP in 2019. \_\_\_\_\_
- Real GDP in 2017 and 2018. \_\_\_\_\_
- Rate of inflation for 2018 \_\_\_\_\_
- Growth rate in 2019. Give a percent change. \_\_\_\_\_

6. Answer the following question about real output change in the country of Ulsteria:

- Nominal output increased from \$6.75 trillion to \$9.75 trillion from 2017 to 2018. The GDP deflator index rose from 120 to 125 in that time. By how much did real output change? **Show work.**

7. Use the following table showing the production of 500 boxes of Wheaties cereal to calculate the contribution to GDP using the value-added approach.

| Participants  | Cost of Materials | Value of Sales | Value Added  |
|---------------|-------------------|----------------|--------------|
| Farmer        | \$0               | \$550          | _____        |
| Mill          | \$550             | \$900          | _____        |
| Cereal maker  | _____             | \$_____        | \$300        |
| Wholesaler    | \$_____           | \$1750         | _____        |
| Grocery store | \$_____           | _____          | <u>\$200</u> |

- Calculate the value added at each stage of production.
- What is the market value of the final good?

- c. What is the total value added?
- d. What is the contribution to GDP for the production of those Wheaties?

8. You have been hired as a research assistant and are given the following data about the economy:  
All figures are in billions of dollars.

|                                   |                   |
|-----------------------------------|-------------------|
| Transfer payments                 | 80                |
| Interest paid by consumers        | 5                 |
| Exports                           | 20                |
| Indirect business taxes           | 44                |
| Change in inventory               | -50 (negative 50) |
| Corporate income tax              | 69                |
| Contribution for social insurance | 48                |
| Imports                           | 40                |
| New Home Construction             | 50                |
| Plant and equipment               | 350               |
| Government purchases (all)        | 480               |
| Personal Household Consumption    | 3250              |

Calculate the GDP using the expenditures approach. Show work \_\_\_\_\_

9. You have been hired as a research assistant and are given the following data about another economy

|                               |        |
|-------------------------------|--------|
| Corporate income tax          | \$200  |
| Profits                       | \$ 600 |
| Rent                          | \$ 120 |
| Depreciation                  | \$20   |
| Indirect business taxes       | \$110  |
| Net foreign factor income     | \$-5   |
| Interest charged to borrowers | \$295  |
| Social security contribution  | \$30   |
| Transfer payments             | \$80   |
| Wages                         | \$1100 |
| Personal taxes                | \$175  |

Calculate the GDP using the factor payment approach. Show work. \_\_\_\_\_