Lori Perez Matos
NOTE: I don't have word so I copy and paste on to google docs incase things look different)

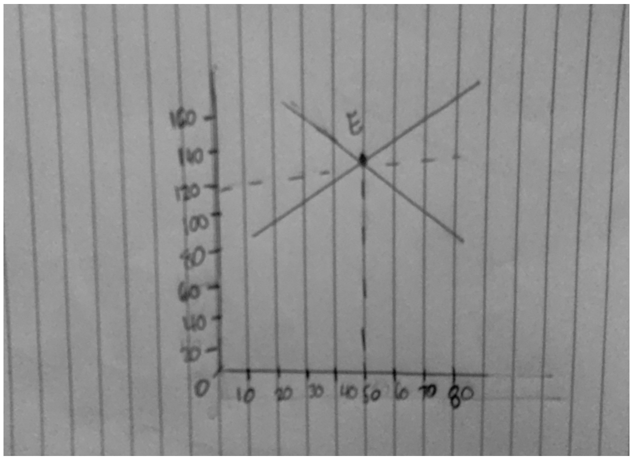
ECON 1101: MACROECONOMICS SECTIONS HD81, OL13, WH08

Midterm Part II: Problem Sets (Be sure to label your answers to the corresponding questions) (25 Points)

1. **A market research team has come up with the demand and supply schedules for gasoline in Motorville in the table below. Use these data to analyze the situation in the market for gasoline in Motorville.**

Price (cents per gallon)	Quantity demanded (thousands of gallons per week)	Quantity supplied (thousands of gallons per week)
90	80	20
100	70	30
110	60	40
120	50	50
130	40	60
140	30	70
150	20	80

a) Draw a graph showing the demand curve for gasoline and the supply curve of gasoline. Mark the market equilibrium price and quantity in your graph. Make sure to have price on the vertical axis and quantity on the horizontal axis. Otherwise, no credit is given. (5 points)



b) **What is the market equilibrium price and quantity? (not definition, just state the actual equilibrium price and quantity based on the information in the table) (2 points)**

The equilibrium is 120 and Quantity is 50

c) **Suppose the price is $1.30. Describe the situation in the market and explain how the price adjusts. (2 points) (there are two parts to this question)**

If the price for gasoline was $1.30 per gallon and the quality is supplied is 60 and the demand is 40 that means there is a surplus within the market which means there more goods then demand for those goods.

d) **Now suppose the price is $1.00. Describe the situation in the market and explain how the price adjusts. (2 points) (there are two parts to this question)**

If the price was to be 1 dollar then it will be a shortage opposite of surplus because theres more demand which is 70 then there is supply which is 30.

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2. **Use the table below to answer the following questions:**

The information in the table is the economic data for Sandy Island in 2021.

Item Billions of
Dollars

Item	**Billions of Dollars**
Personal consumption expenditure	**900**
Government expenditure on goods and services	**300**
Net indirect taxes	**350**
Investment expenditure	**200**
Exports of goods and services	**300**
Imports of goods and services	**500**
Depreciation	**100**

a. **Using the information in the table above, calculate the value of GDP for Sandy Island in 2021 (Show your calculation). (2 points)**

GOD = C + I + G + X - M =

900 + 200+300+(300-500) = 1,200 (GPD)

Answer : 1,200

b. **Calculate the value of net exports (Show your calculation). (2 points)**

X-m = net exports
300-500= -200

Answer : -200

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3. **A labor force survey in Econland records the following data:**
Employed: 189,000
Unemployed: 15,000
Not in the labor force: 84,000

a) Calculate the unemployment rate. (show your calculation) (2 points)

unemployed/(Number of employed+unemployed)
15,000/ (189,000 + 15,000) = 0.07352941176
Answer : 0.0735

b) Calculate the size of the labor force. (show your calculation) (2 points) (answer how many people are in the labor force, do not calculate the labor force participation rate)

(Employed + Unemployed)/(Employed+ Unemployed+ Not in Workforce)
(189,000+15,000) / (189,000+15,000+84,000) = 0.70833333333
Answer : 0.7083

4. **Suppose that in 2019 a country has a population of 1 million and real GDP of $1 billion. In 2020, the population is 1.1 million and the real GDP is $1.1 billion. What is the real GDP per person growth rate? (Show your calculation) (2 points)**

Gdp 2013 (1,000,000,000 / 1,000,000) = 100
Gdp 2014 (1,000,000,000 / 1,000,000) = 100
Answer (100-100)/100 = 0

5. If when income increases by 2 percent and the price does not change, the quantity of airplane travel demanded increases by 6 percent, what is the income elasticity of demand of airplane travel? (show your calculation) (2 points)

(change in price / change in demand) = 2% / 6% = 0.3333
Answer: .3333

6. What is the official U.S. unemployment rate for February 2022? (2 points)
Your answer: 3.8%