Wilfrid W. Csaplar Jr., Ph.D. Economics 302 Exam #1 2025/9/11

Write your name on the cover of the test booklet and nowhere else. Enclose this sheet with the booklet. Failure to follow these directions will cost you 1 point. The test has 150 points (to be scaled up to 210 points) and is scheduled to take 75 minutes. Therefore, expect to spend 1 minute for every 2 points. For example, a 12-point question should take 6 minutes. I can give extra time, but I won't give much.

1) (12 points each, i.e. 24 total points) Answer TWO of the three parts
A) What are net factor payments (NFP)? Why are they included as part of the current account (CA) rather than part of the capital-financial account (KFA)?
B) Suppose you are an American an buy \$500 worth of Ford stock and pay commissions of \$4. Suppose I also pay you \$160 to mow my lawn. What happens to GDP? Which category(ies) is(are) affected? Briefly explain your answer. If you do not use a number state why you did not use it.
C) Suppose a student from Belarus pays \$10,000 in tuition to Bethany College. Suppose the same student buys a used car for \$3000, which cost the dealer \$1900.

2) (12 points) Answer EITHER Part A OR Part B.
A) When we estimate $\bar{N}$ aka NAIRU, we only include two of the four types of unemployment. Which two do we exclude? Why don't we include them?
B) Which type of unemployment might increase or decrease when the economy improves? Explain why it might icrease and why it might decrease.

3) (12 points) Use this data to answer this question. Consumers buy \$2000 worth of goods. Firms buy \$800 worth of machines. The government buys \$900 worth of services. We import \$220 worth of goods and export \$170 worth. We paid foreigners \$10 worth of interest and received \$12. Capital lost \$40 worth of value. Firms paid \$120 dollars of sales tax and \$30 worth of business taxes while collecting \$35 worth of subsidies. They retained \$25 of earnings. Consumers paid \$220 worth of income tax and received \$140 worth of Social Security payments from the government. Show all work. If you need data which is not provided, assume it is zero.
A) If NNP you calculated as being \$4000 (it is not), then how much is NI? Show all work and state which variables you are adding or subtracting.
B) If NI you calculated as being \$3000 (it is not), then how much is PI? Show all work and state which variables you are adding or subtracting.

4) (16 points) Explain EITHER the equation in Part A OR the equation in Part B.
A) $S_{GVT} = (T - TR - INT) - G$
B) $c = b_T y_T + b_P Y_P$. Explain the Y's. For the b's, give an approximate value and explain how you got that number.

5) (16 points) Answer EITHER Part A OR Part B.
A) Explain why the labor supply curve looks as drawn in class. Which effect is stronger? Explain why that effect makes the curve slope that way.
B) In microeconomics, there are cases when an increase in the productivity of labor reduces the labor demand. However, that is not the case in macroeconomics. Explain why the labor demand increases in macroeconomics even though there may be firms in microeconomics which are laying off people.

6) (18 points) Draw the inter-temporal budget constraint. For EITHER the event in Part A OR the event

in Part B, draw the effects of the event on the graph. Explain why the curve moved as drawn. What happens to consumption now, consumption in the future, and saving? State how you reached those conclusions.
A) The real interest rate decreases.
B) Future income goes down.

7) (20 points) Use EITHER Modigliani's Life-Cycle Model OR Friedman's Permanent Income Hypothesis to explain why Ricardian Equivalence might hold for a temporary tax cut. Make sure you state which model you are using and define Ricardian Equivalence.

8) (32 points) For EITHER the event in Part A OR the event in Part B, draw both the production function with labor on the horizontal axis and the labor supply/labor demand diagrams. Explain how your diagrams change and why. What happens to the amount of labor used, the real wage rate, and the level of GDP?
A) President Biden financed many infrastructure projects.
B) The labor force participation rate has decreased over the past two decades.