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 100 points (to be scaled up to 160 points) and is scheduled to take 50 minutes. Therefore, expect to spend 1 minute for every 2 points. For example, a 12-point question should take 6 minutes. I cannot give extra time because some students have a class after your class.

1) (12 points) Answer EITHER Part A OR Part B.
A) One of the book's "keys for development" is creative destruction. What does that mean and how does that help the country's economy to grow?
B) When we calculated the government spending multiplier, what did we assume about interest rates? If that assumption is relaxed, what will happen to the size of the multiplier? Explain your logic.

2) (12 points) Answer EITHER Part A OR Part B.
A) In an effort to get more people vaccinated against COVID-19, some places are not letting the unvaccinated to eat in restaurants. Use terminology from this course to explain how that will get more people vaccinated.
B) On the second homework assignment, there was a question about the opportunity costs of going to college. I accepted room & board as a valid answer for some students but not for other students. Why did I accept it as a valid answer sometimes, but not other times? Explain your logic.

3) (14 points) Answer EITHER Part A OR Part B.
A) Given the tax table to the right, what are the marginal tax rate, total taxes paid, and average tax rate for a person earning $50,000? Show all work, and if there is no work to show, state where you got the information.
B) Suppose at the start of the year, the CPI was 400 and at the end of the year it was 408. What was the inflation rate? Show all work. If people had expected 4% inflation, then name two groups of people who are hurt by the inflation and briefly explain how they are hurt.

Bracket	Rate
Income $\leq$ $10,000	10%
$10,000 < Income $\leq$ $30,000	20%
$30,000 < Income $\leq$ $60,000	30%
$60,000 < Income $\leq$ $90,000	40%
$90,000 < Income	50%

4) (14 points) Answer EITHER Part A OR Part B.
A) When answering the second half of the final, we will assume that counter-cyclical fiscal policy will work. However, Ricardian Equivalence implies it might not work as intended. Explain Ricardian Equivalence and why it might prevent counter-cyclical fiscal policy from working as intended.
B) When answering the second half of the final, we will assume that counter-cyclical monetary policy will work. However, the Keynesian Liquidity trap implies it might not work as intended. Explain the Keynesian Liquidity Trap and why it might prevent counter-cyclical fiscal policy from working as intended. You should draw a graph.

5) (16 points) Answer EITHER Part A OR Part B.
A) Draw the supply and demand for cars. Illustrate the effects on increase in the cost of the computer chips which control the cars. Explain why the curve(s) moved as drawn. What happened to the price of

a car and the quantity of cars sold?

B) Draw the supply and demand diagram for chairs. Illustrate the effects of an increase in the price of bedframes. Explain why the curve(s) moved as drawn. What happens to the price of a chair and the quantity of chairs sold?

6) (16 points) Answer EITHER Part A OR Part B.

A) Draw a PPF for toilet paper and masks. Illustrate the effects of COVID-19 on the graph. Explain why the curve moved as drawn.

B) Draw the supply and demand for rental housing. Sweden has rent controls (price ceiling). Illustrate the effects of the rent controls on the diagram. Explain why your diagram changed as drawn. Are consumers and producers helped or hurt? Explain your logic.

7) (16 points) Answer EITHER Part A OR Part B.

A) What is the long-term problem facing Social Security? What are the two long-term trends which mean the problem will be getting worse for at least a decade? One of the proposals to reduce the problem is to means test benefits. How would that reduce the problem? If you were the president, would you use that proposal as part of the solution? Explain your logic.

B) Suppose that a project costs $3000. If completed, it would allow the firm to sell 1 item to each of 200 people at a profit of $20 per item. There is a negative externality which affects 300 people at a cost of $3 per person. Should this project be done? Would the market provide it? Would the government provide it? Show all work for each calculation and briefly explain what you did.

I hope you have a good break and I hope to see you in future classes.