**AP Macroeconomics Unit 3 Practice Test Answers/Explanations**

1. C - The Multiplier is: 1/1-MPC = 1/1-.63 = 1/.37

2. D - The APC = Consumption over Income or C/I. At income $50, consumption is $40, so 40/50 = .80

3. C - The Multiplier is: 1/1-MPC. The MPC is: Change in Consumption/Change in Income. Going row by row, we see income is increasing by 10 and consumption is increasing by 7, so the MPC is 7/10 = .70.

With that MPC, the Multiplier = 1/1-.70 = 1/.30 = 3.33…

4. A - Recall that every time there is a change in C, Ig, G, or Xn; aggregate demand (or AD) shifts up or down, but then it shifts up or down again. This is the multiplier effect. To determine the exact size of the overall shift, we need to multiply the initial change in C, Ig, G, or Xn by the multiplier. The initial change is given. It is - $10 billion. The multiplier is 1/1-MPC. The MPC is given at 3/4 or .75. Using that MPC, we get: Multiplier = 1/1-MPC = 1/1-.75 = 1/.25 = 4. Multiplying this multiplier by the original change in AD of - $10 billion we get: 4 X -$10 billion = - $40 billion. So AD shifts down by 10 billion at first and then by another 30 billion to give us a total decrease of $40 billion. Graphically, this looks just like the graph for question number 8. Take a look. Pretend that AD has shifted 10 billion to the left in that graphic. However, notice that the new equilibrium has not moved the full 10 billion to the left. It has moved by some amount less than 10 billion. However, because prices are "sticky" when AD shifts to the left, GDP along the bottom does move all the way from Q1 to Q3 not just Q2. The multiplier effect is in full effect when AD shifts to the left, so the decrease in GDP along the bottom is equal to the full decrease in the AD curve.

5. D - The MPS is: Change in Saving/Change in Income. Saving is not given in the table, but we can create a savings column next to the Consumption column. Starting at the top row, if your income is zero but you are still spending $5, you must be borrowing $5, so savings is -$5. Next row: If your income is $10 and you are spending $12, you must be borrowing $2, so savings is -$2. If your income is $20 and you are spending 19, you must be saving $1. Continuing, we get savings of $4, $7, and $10. Comparing these amounts row by row, we see that saving is increasing by 3. Income is increasing by 10, so the MPS = 3/10 = .30.

6. D - A change in any of the determinants of demand (C, Ig, G, or Xn) will be multiplied into more consumption.

7. The reason that changes in C, Ig, G, or Xn are multiplied is because part of the money that American producers earn by creating and selling new goods and services is re-spent over and over again on other new goods and services. The part that is re-spent and multiplied is the MPC, so it makes sense that a large MPC would lead to a large multiplier. That is why, looking at the MPC formula (1/1-MPC), if the MPC is large, you will get a large multiplier (plug in an MPC of .80 and then .10 to see). But a large MPC means a small MPS because if you are spending a large percentage of your extra income, you must be saving a small percentage. So the answer is D, a small or decreasing MPS.

8. D - A decrease in C, Ig, G, or Xn would cause the decrease in AD that is shown.

9. A - In econ, energy and oil (which actually is a form of energy) are considered inputs, things that businesses must purchase in order to make other things. If this input is now less expensive for businesses to buy, the cost of making things (the "per-unit production cost") goes down. So they can make more. This is shown by an increase in the SRAS curve, graph A.

10. A - This is discussed your Aggregate Demand Outline Template which I believe is the first activity we did for this unit. Appreciation and depreciation of the dollar effect one of the determinants of demand, Xn, which is Exports - Imports. When the dollar appreciates, it means that our dollar will buy more of another countries' 'dollars.' And, since we buy their products with their 'dollars' when the dollar appreciates, imports increase. This causes Xn to do gown (because it's - imports) and AD to shift to the left. One the other hand, when our dollar deprecates (like in this question), their 'dollars' will buy more of our dollars and more of our products, so Xn increases (because it's + Exports). So the answer is A.

11. C - Demand-Pull inflation is the nickname of the inflation that happens when AD shifts to the right, 'pulling' up the price. Cost-Push inflation is the nickname of the inflation that happens when AS shifts to the left, pushing up the price. It is called 'cost-push' instead of 'supply-push' because the reason AS shifts left is because of an increase in input 'costs,' (like an increase in energy prices or something). FYI - These increased input costs are usually the result of 'supply shocks,' sudden shortages of these inputs that drive up their price, like an oil shortage.

12. D - Use the aggregate supply and demand model to figure this one out. Draw a graph of AS and AD. Notice where your equilibrium is. Then, draw a dot where you want your new equilibrium to be. An increase in real output (which is just GDP), would be straight to the right of the original equilibrium. Stable or unchanging prices would be neither higher or lower than the original equilibrium. So just draw a dot to the right of the original equilibrium. Then, draw a new AS and AD curve that cross at this new equilibrium. You will see that they have both shifted up from the original curves.

13. A - This was also discussed in your Aggregate Demand Outline Template in the Xn section. If people in another nation that we trade with get raises, they will buy more of everything, including our stuff, so Xn will increase because of the increase in exports.

14. D - see the explanation for number 11.

15. This was something you were to take notes on from the textbook and study on your own at the end of some class-notes that we did.

16. B - If the multiplier is 4 and Xn increases by $100, 4 X $100 = $400. So AD shifts to the right by $400. However, if you draw a graph of an increase in AD, you will see that the new equilibrium quantity will not shift up as far as the AD curve shifted up (draw or look at a graph of an increase in AD to see). That is because the increase in AD causes some inflation ('cost-push inflation' to be precise), and the higher prices cause consumers to purchase a bit less than they would if prices remained low. In other words, the multiplier effect is weakened by the higher prices.

17. A - This is from your Aggregate Demand Outline Template and also from your notes on Consumption, Saving, and the multiplier. When taxes go down, people have more money to spend, so they will, causing AD to shift to the rights.

18. B - This one if fun. We begin by finding the original equilibrium price level. It is where Quantity Supplied and Quantity Demanded are equal. At a price level of 200, Quantity supplied and Quantity demanded are both 400, so 200 is the equilibrium price level. In this question, government spending increases. That will increase the AD curve. On a table like this, the AD curve is represented by the quantity demanded column (which they call the 'Amount of real output demanded' column). An increase in the AD curve is shown by increasing the numbers in this column. We need to figure out how much to increase them by. We should increase them by however much the AD curve increases. To figure that out, we need to multiply the original increase in AD by the multiplier. The original increase is a $50 increase in government spending (that's given). The multiplier is 1/1-MPC. The MPC is given. It is .75, so the multiplier is 1/1-.75 = 1/.25 = 4. $50 X 4 = $200. So AD increases by $200, so we should add $200 to each value in the first column. Once you do that, you see that quantity supplied and quantity demanded are now equal at a price level of 250 where they are each $500.

19. D - The APC is the percentage of income that is spent. In this case, it is .8 or 80%. If you spend 80% of your income, you must save 20%. 20% of $375 is $75.

20. C - As people make more money, they spend and save more money overall (because they have more money overall), but they spend a smaller percentage of their money and save a larger percentage. In other words, the APC falls and the APS rises.

21. C - This is just a wordy way of saying the same thing that I said in my explanation of question number 20.

22. C - The dashed line shows where you would be if you spent exactly what you earn, no less, no more. The actual consumption curve if line C. It crosses the dashed line at the income level of 60. So there, income and consumption are the same. And if one earns $60 and spends $60, saving must be zero.

23. B - The APS is Savings/Income. At the income level of $160, consumption is $148. If you are spending $148 out of $160, you must be savings $12. $12/$160 = .075.

24. B - This is from your notes on Consumption, Saving, and the Multiplier Effect. If people are wealthy because their home or stocks or whatever is worth more money, they will spend more of their next paycheck. That means that they will save less of their next paycheck, so B.

25. C - This is also from your notes on Consumption, Saving, and the Multiplier Effect. Everything that causes you to spend less of you paycheck causes you to save more of it, so whenever C decreases, S increases, unless your taxes go up. Then you have less money overall, so C and S will both go down.

26. A - Once changes in wages catch up with changes in prices, you're in the long run.

27. B - Increases in government regulations are an 'unfavorable legal-institutional environment' because regulations are expensive for businesses to follow. So these pollution regulations would shift the SRAS curve to the left.

28. D - The short-run curves always cross on, or relatively close to, the long-run curve. So equilibrium is always on or close to the long run curve. So growth, an equilibrium with a higher GDP, can only be achieved if the long-run curve shifts to the right.