1. The law of one price works under some assumptions. Which of the following is NOT an assumption for the law of one price?
A) There is free competition.
B) There is no transportation cost.
C) There are no tariffs.
D) The skill level of workers is identical in both countries.

2. If a pound of coffee beans costs 85 pesos in Mexico City and 10 pesos = 35 rupees, then the same pound of coffee should cost ________ in New Delhi, under the condition of the law of one price.
A) 300 rupees
B) 297.50 rupees
C) 29,750 rupees
D) 3,500 rupees

3. When the price of a good in the United States is $2, in Spain is €2, and the nominal exchange rate is $/€=1.5, what is the relative price of the good in Spain versus the United States?
A) 1
B) 1.5
C) 2/3
D) 1/2

4. In the international goods market, prices of goods in different countries expressed in a common currency must be equalized. This concept is called ________.
A) exchange rate theory
B) depreciation
C) appreciation
D) purchasing power parity (PPP)
5. If a basket of goods in the United States costs $1,000, and the same basket of goods in Japan costs ¥125,000, then for PPP to exist, $1 should trade for ____ Japanese yen.
   A) 4
   B) 50
   C) 125
   D) 125,000

6. The real exchange rate between two currencies tells us:
   A) changes in the exchange rate over time.
   B) how many units of one currency can be purchased with one unit of the home currency.
   C) how much in terms of goods and services the home currency will buy in the foreign nation compared to the home nation.
   D) how much depreciation or appreciation has occurred in the home exchange rate.

7. If the real exchange rate for a foreign currency falls (a real appreciation), what is the situation?
   A) It takes more home goods to purchase the same quantity of foreign goods.
   B) It takes fewer home goods to purchase the same quantity of foreign goods.
   C) The nominal exchange rate has risen as well.
   D) The nominal exchange rate has fallen.

8. If the prices of goods in Europe increase, while the nominal exchange rate between the euro and the U.S. dollar has not changed, we say that the U.S. dollar has:
   A) experienced a nominal appreciation.
   B) experienced a nominal depreciation.
   C) experienced a real appreciation.
   D) experienced a real depreciation.

9. What is the situation when a home currency purchases fewer goods and services at home than abroad when converted to a foreign currency?
   A) The currency is undervalued.
   B) The currency is overvalued.
   C) The currency is unstable.
   D) The currency is appreciating.
10. Which of the following situations would exhibit relative PPP?
   A) Europe's yearly inflation rate rises from 5% to 7%, \textit{ceteris paribus}, and the euro-yen rate depreciates by 7%.
   B) Europe's yearly inflation rate rises from 5% to 7%, \textit{ceteris paribus}, and the euro-yen rate depreciates by 2%.
   C) Europe's yearly inflation rate rises from 5% to 7%, \textit{ceteris paribus}, and the euro-yen rate appreciates by 2%.
   D) Europe's yearly inflation rate rises from 5% to 7%, \textit{ceteris paribus}, and the euro-yen rate appreciates by 5%.

11. Short-run PPP may not hold for a variety of reasons. Which of the following is NOT cited in your textbook as one of those reasons?
   A) weather and other environmental conditions that affect trade
   B) transactions costs
   C) non-traded goods
   D) imperfect competition and price stickiness

12. Evidence suggests that convergence to PPP occurs:
   A) instantly, as arbitrageurs take advantage of profit opportunities.
   B) rapidly, as arbitrageurs learn of profit opportunities.
   C) slowly, as arbitrageurs operate, and production, prices, and exchange rates adjust.
   D) Convergence to PPP has never been observed.

Use the following to answer questions 13-14:

\textbf{Table: Exchange Rates and Prices}

<table>
<thead>
<tr>
<th>Country</th>
<th>Exchange Rate per Dollar</th>
<th>Price of a Computer in Local Currency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil (real)</td>
<td>2.2</td>
<td>1,200</td>
</tr>
<tr>
<td>Mexico (peso)</td>
<td>10</td>
<td>6,000</td>
</tr>
<tr>
<td>India (rupee)</td>
<td>45</td>
<td>18,000</td>
</tr>
<tr>
<td>South Africa (rand)</td>
<td>8</td>
<td>3,500</td>
</tr>
</tbody>
</table>

13. Suppose a computer costs $500 in the United States. With the price of the computer given in local currency, the Indian rupee is _____ by ______%.
   A) overvalued; 9.1
   B) overvalued; 20
   C) undervalued; 12.5
   D) undervalued; 20
14. Suppose a computer costs $500 in the United States. If PPP were to hold, then the price of a computer in South Africa would be _____ rands.
   A) 4,000
   B) 40
   C) 800
   D) 8,000

15. Price stickiness refers to:
   A) slow movements in prices.
   B) the sticker price for big-ticket items.
   C) the price of oil.
   D) the price of a Big Mac across countries.

16. If nominal income in a nation decreases, economists would predict:
   A) the supply of money will rise.
   B) the demand for money will rise.
   C) the supply of money will decrease.
   D) the demand for money will decrease.

17. If prices are held constant and income increases by 12%, the demand for money will ______ by ______%.
   A) decrease; 21
   B) increase; 12
   C) decrease; 12
   D) remain unchanged

18. Using monetary theory, one can show that the price level (index) in an economy is equal to:
   A) the inflation rate minus the interest rate.
   B) the average change in the level of trade over the past 5 quarters.
   C) the velocity of money.
   D) the ratio of the nominal supply of money to the demand for real balances.

19. The long-run monetary model of the price level provides that:
   A) the demand for money is always proportional to the supply of money.
   B) when the demand for money decreases, prices respond very slowly.
   C) as long as prices are flexible, a change in the supply of money or the demand for money will result in a change in the price level to restore equilibrium.
   D) equilibrium conditions require a change in real GDP to lower inflation.
20. If U.S. real income increases, then the prediction of the monetary model of exchange rates would be that the U.S. dollar would:
   A) become stronger.
   B) appreciate in the short run, but not in the long run.
   C) depreciate.
   D) depreciate in the short run, but not in the long run.

21. Under the monetary approach to exchange rates, if the exchange rate has appreciated, this suggests that:
   A) the home country's money supply has risen.
   B) the foreign country's money supply has risen.
   C) the home country's income has fallen.
   D) the foreign country's money supply has fallen.

22. Combining the relative PPP with the monetary model of exchange rates, we find: the rate of depreciation of a currency (relative to another nation) in the long run is equal to:
   A) the sum of nominal money supply growth rates in each nation.
   B) the difference between the nominal money supply growth rates in each nation minus the difference between growth rates of real GDP.
   C) the average of growth rates of real GDP in each nation.
   D) the sum of population growth plus technology growth.

23. If Europe has a real GDP growth rate of 5%, and the United States has a real GDP growth rate of 6%, while money growth in Europe is 7%, and money growth in the United States is 5%, what would the monetary exchange rate model predict for exchange rates in the long run?
   A) The U.S. dollar would appreciate by 3% against the euro.
   B) The U.S. dollar would depreciate by 3% against the euro.
   C) The U.S. dollar and the euro would not change against each other because the growth rates are offsetting.
   D) The U.S. dollar would appreciate by 1% against the euro.

24. If the U.S. growth rate is greater than that of Canada, then the dollar will depreciate:
   A) only if the U.S. inflation rate exceeds Canada's.
   B) regardless of the relative inflation rates.
   C) only if the U.S. inflation rate is less than Canada's.
   D) only if the U.S. inflation rate is less than that of Canada's other trade partners.
25. In the general model of the demand for money, the demand for real balances is based on which two variables?
   A) the supply of money and the price level
   B) the demand for assets and the supply of assets
   C) the level of real income and the nominal rate of interest
   D) expectations of inflation and money velocity

26. We can use the existence of arbitrage and the idea of uncovered interest parity (UIP) to assume that any interest rate differential between two currencies must be offset by:
   A) the change in the quantity of money.
   B) an offsetting differential in the expected exchange rates.
   C) offsetting changes in real income.
   D) resulting increases in borrowing denominated in the low-interest currency.

27. Using the relationship between expected exchange rates and inflation differentials in combination with uncovered interest parity, we find:
   A) changes in inflation rates are directly related to changes in nominal interest rates.
   B) changes in inflation rates are inversely related to changes in nominal interest rates.
   C) changes in inflation rates are unrelated to changes in nominal interest rates.
   D) changes in inflation rates are directly related to changes in real interest rates.

28. If inflation in the United States is 4% per year and in the United Kingdom it is 8% per year, and interest rate in the United Kingdom is 6%, then the Fisher effect predicts that:
   A) the interest rate in the United States is 2%.
   B) the interest rate in the United States is 4%.
   C) the interest rate in the United States is 6%.
   D) the interest rate in the United States is 8%.

29. Real interest parity indicates that, when PPP and UIP hold:
   A) nominal interest rates are equal across countries.
   B) inflation rates are equal across countries.
   C) real interest rates are equal across countries.
   D) nominal interest rates vary across countries.
30. Incorporating the liquidity preference function into the simple model changes its outcome somewhat. What is the impact?
   A) Changes in the growth of the money supply cause inflation and nominal interest rates to change, which affects demand for real balances and causes further discontinuous impacts on prices.
   B) Changes in the inflation rate no longer affect nominal interest rates: the Fisher effect is no longer operative.
   C) Changes in nominal interest rates have an immediate effect on the real exchange rate, bypassing the adjustment process.
   D) Changes in the money growth rate increase real balances, since prices are no longer flexible.

31. It has been abundantly demonstrated that nominal interest rates, exchange rates, and inflation are very tightly linked. In Italy, during the 1970s and 1980s, the inflation rate of the Italian lira was very erratic, changing each year in a range of 7% to 20% per year. In the space below, briefly explain the effect on Italy's nominal interest rates and its exchange rates with other nations during that period.
Use the following to answer questions 32-33 and explain briefly in the spaces provided:

A basket of goods sold in the Eurozone is priced and weighted as follows:

<table>
<thead>
<tr>
<th>Good</th>
<th>Price</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat</td>
<td>€33/ton</td>
<td>0.3</td>
</tr>
<tr>
<td>Textiles</td>
<td>€20/ton</td>
<td>0.5</td>
</tr>
<tr>
<td>Grain</td>
<td>€10/ton</td>
<td>0.2</td>
</tr>
</tbody>
</table>

And the same basket for the United States is priced and weighted as follows:

<table>
<thead>
<tr>
<th>Good</th>
<th>Price</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat</td>
<td>$14/ton</td>
<td>0.5</td>
</tr>
<tr>
<td>Textiles</td>
<td>$20/ton</td>
<td>0.3</td>
</tr>
<tr>
<td>Grain</td>
<td>$10/ton</td>
<td>0.2</td>
</tr>
</tbody>
</table>

The exchange rate for $/€ is 1.25.

32. Does purchasing power parity hold?

33. In which nation should an arbitrageur purchase goods to resell in the other nation?
Use the following to answer questions 34-36:

**SCENARIO: FUTURE EXPECTED EXCHANGE RATE**
Assume that the U.S. interest rate is 5%, the European interest rate is 2%, and the future expected exchange rate in 1 year is $1.224.

34. If the spot rate is $1.16, then the expected dollar return on euro deposits is:
   A) 7.52%.
   B) 5%.
   C) 3%.
   D) 2%.

35. If the spot rate is $1.24, then the expected dollar return on euro deposits is:
   A) 4%.
   B) 7.1%.
   C) 0.71%.
   D) 0.129%.

36. At approximately what exchange rate will the returns between the United States and Europe be equalized?
   A) $1.20
   B) $1.224
   C) $1.188
   D) $1.98

37. If UIP holds, the interest rate at home is 4%, and the exchange rate is expected to rise by 3%, then the foreign interest rate is:
   A) 1%.
   B) 3%.
   C) 7%.
   D) 12%.

38. Using the UIP equation to determine the spot exchange rate, assume that the expected spot rate (after 1 year) for euros (in terms of dollars) = $1.50, the current interest rate on euro deposits is 4.5%, and the current interest rate on dollar deposits is 5.5%. What current spot rate would satisfy the equation?
   A) $1.65
   B) $1.50
   C) $1.485
   D) $1.25
39. Using the UIP equation, equilibrium in the short run occurs when:
   A) arbitrage is possible.
   B) the spot rate is such that foreign and domestic investment returns are equalized.
   C) the spot rate is less than the forward rate.
   D) foreign interest rates are higher than domestic rates of interest.

40. Using the UIP equation, what would happen to the spot rate for euros if the interest rate on U.S. dollar deposits rises *ceteris paribus*?
   A) the spot rate to purchase euros would rise (dollar depreciation).
   B) the spot rate to purchase euros would fall (dollar appreciation).
   C) the spot rate to purchase euros would be unchanged.
   D) the U.S. Federal Reserve would have to raise U.S. short-term interest rates.

Use the following to answer questions 41-42:

**Figure: The Domestic Interest Rate**

41. If \( i_e \) falls, the result is:
   A) the dollar interest rate line shifts up and the spot rate rises.
   B) the dollar interest rate line shifts down and the spot rate rises.
   C) the foreign return line shifts up and to the right and the spot rate rises.
   D) the foreign return line shifts down and to the left and the spot rate falls.
42. If the expected future exchange rate falls from $1.224 to $1.15:
   A) the dollar interest rate line shifts up and the spot rate rises.
   B) the dollar interest rate line shifts down and the spot rate rises.
   C) the foreign return line shifts up and to the right and the spot rate rises.
   D) the foreign return line shifts down and to the left and the spot rate falls.

43. The money market (short-run) equilibrium equation states that the demand for real balances \((M/P)\) is always equal to the supply of real balances \((M/P)\) because ____ adjust(s) to ensure that people are willing to hold the entire stock.
   A) nominal interest rates
   B) real interest rates
   C) the price level
   D) nominal GDP

44. Normally, whenever the central bank lowers the rate it charges banks for overnight loans:
   A) market rates of interest are not affected.
   B) market rates of interest fall at the same rate.
   C) market rates of interest increase.
   D) market rates of interest are unstable.

45. During the financial crisis of 2007–2008, the U.S. central bank lowered its discount rate from 5.25% to 0%. What was the effect on market rates of interest?
   A) Market rates increased by 5%.
   B) Market rates fell by 5%.
   C) Market rates fell below zero.
   D) Market rates barely moved at all.

46. To move quickly to turn around the crisis during 2007–2008, the U.S. Federal Reserve relied on:
   A) lowering taxes.
   B) removing restrictions on collateral, adding more categories of securities purchased by the Federal Reserve, and expanding its operations with nonbank dealers.
   C) tightening up credit rules and keeping banks out of trouble.
   D) admonishing the administration for its excessive debt situation.
47. In the short run/long run, a strong currency goes with:
   A) a low interest rate/a high interest rate.
   B) a high interest rate/a high interest rate.
   C) a high interest rate/a low interest rate.
   D) a low interest rate/a low interest rate.

48. A perceived permanent rise in the rate of money growth will cause what long-run effects in the economy?
   A) a rise in the nominal rate of interest and a rise in inflation by the same percentage
   B) a rise in the nominal rate of interest and a rise in real GDP by the same percentage
   C) a fall in the nominal rate of interest and a rise in inflation by the same percentage
   D) a fall in the nominal rate of interest and a fall in real GDP by the same percentage

49. Assume sticky prices and given expectations of future exchange rates, what is the immediate effect on the exchange rate of the U.S. dollar (purchasing euros) if there is a temporary increase in the quantity of U.S. dollars?
   A) U.S. nominal and real returns rates decline while euro rates hold steady, and the U.S. dollar depreciates against the euro.
   B) U.S. nominal returns rise, U.S. real returns fall, euro rates rise, and the U.S. dollar appreciates against the euro.
   C) U.S. nominal returns fall, U.S. real returns rise, euro rates fall, and the U.S. dollar appreciates against the euro.
   D) U.S. dollar returns and euro returns both rise, leaving the exchange rate unchanged.

50. When a country's central bank temporarily switches from an expansionary to a more conservative monetary policy, one would expect the exchange rate to:
   A) depreciate in the short run, then return to its initial value.
   B) appreciate in the short run, then return to its initial value.
   C) depreciate in the short run and then stay higher.
   D) appreciate in the short run and then stay lower.

51. The asset approach basically looks at ____ as the fundamental variable affecting ____ exchange rates.
   A) interest rates; short-run
   B) interest rates; long-run
   C) the price level; short-run
   D) the price level; long-run
52. From full long-run equilibrium, expectations of future exchange rates can only change when there is:
   A) a political change.
   B) a permanent change in the quantity of money.
   C) a change in short-run interest rates.
   D) a temporary decrease in the quantity of money.

53. When traders perceive a permanent money supply adjustment, short-term nominal interest rates ___ affected, the expected exchange rate ____ affected, and the spot exchange rate _____ affected.
   A) are; is; is
   B) are; is; is not
   C) are not; is not; is not
   D) are; is not; is

54. If you observe that the dollar is appreciating because of a permanent change in the U.S. monetary supply, then the money supply must have:
   A) fallen.
   B) stayed the same.
   C) risen.
   D) Not enough information is provided.

55. When the exchange rate has fallen in the short run and then risen slightly in the long run, it implies that:
   A) the foreign money supply has temporarily risen.
   B) the foreign money supply has permanently risen.
   C) the foreign money supply has temporarily fallen.
   D) the foreign money supply has permanently fallen.

56. In the United States, where there is a permanent increase in the money supply, the exchange rate overshooting is caused in part by:
   A) higher domestic interest rates.
   B) an appreciation of the dollar.
   C) lower foreign interest rates.
   D) a depreciation of the dollar.
57. Put the following events related to an increase in the money supply leading to overshooting in their proper order:
   i. The price level is sticky in the short run, but rises in proportion to the change in the money supply in the long run.
   ii. In the short run, the exchange rate rises even more, resulting in overshooting the equilibrium level.
   iii. A perceived permanent shock to the money supply instantaneously raises real money balances, which revert to their former level in the long run.
   iv. The exchange rate rises (depreciates) to a new higher level in the long run in proportion to the change in the money supply.
   A) i, ii, iii, iv
   B) ii, i, iv, iii
   C) iii, i, iv, ii
   D) iv, iii, i, ii

58. Central banks control exchange rates by intervention. If a nation such as Japan wished to peg its market rate at a certain level, such as ¥100 = $1, what should it do if the actual market rate began to depreciate to ¥125 = $1?
   A) It should purchase dollars with its own currency.
   B) It should sell dollars from its treasury and retire its own currency.
   C) It should increase its GDP to increase exports.
   D) It should petition the IMF for a rate change.

59. With fixed exchange rates and capital mobility:
   A) interest rates in the home country and in foreign countries are equalized.
   B) interest rates in the home country are higher.
   C) interest rates in foreign countries are higher.
   D) monetary policy maintains its autonomy.

60. Which of the following is correct?
   A) If a nation changes its money supply, it disrupts the long-run PPP equilibrium, which causes traders to purchase in the cheaper markets and sell in the pricier markets, which, in turn, causes demand for the domestic currency (vis-à-vis the international currency) to be lower.
   B) The peg changes the long-run expectation of exchange rates, and this is a determinant of short-run rates which, in turn, affect deposit rates of return.
   C) The Federal Reserve has complete control of monetary policy; it is independent of political control, so, in the United States at least, monetary policy can coexist with an exchange rate peg.
   D) Pegging its own currency causes a nation to lose political control, and it is forced to sell its own resources at world prices.
61. A country with a fixed exchange rate faces:
   A) no monetary policy constraints in the long run.
   B) no monetary policy constraints in the short run.
   C) no monetary policy constraints in the long run and the short run.
   D) monetary policy constraints in the long run and the short run

Please answer questions 62-64 in a separate attached page.

62. Explain the intuition for the fact that short-run nominal interest rates rise in response to an increase in the real income.

63. Describe the effect of a permanent increase in the quantity of money on exchange rates in both the long and short run.

64. On the outlined graphs that follow, label each axis and each linear relationship. If the money supply in the United States is temporarily increased from M1 to M2, and prices are sticky, trace the effects of the change and predict the effect on the dollar, assuming other variables remain constant.