3) The consumption function relates the consumption expenditure decisions of households to
A) the level of disposable income.
B) saving decisions of households.
C) investment decisions of firms.
D) the nominal interest rate.

3) The consumption function relates consumption expenditure and disposable income. Disposable income is usually graphed on the horizontal axis, while consumption expenditure is on the vertical axis. This infers that the amount of disposable income (the independent variable) impacts the amount of consumption expenditure (the dependent variable). Answer: A

4) The slope of the consumption function is
A) less than 1. B) 1. C) negative. D) greater than 1.

4) If every dollar of additional disposable income earned by households were spent on consumer goods, our consumption function would have a slope of 1, showing a one-to-one relationship between the two variables. However, we know that when additional disposable income is earned, not all of it is expended. Some, we save. Hence, the slope of the consumption function is less than 1. Answer: A

11) The marginal propensity to save (MPS) is
A) the decrease in saving that is caused by inflation.
B) the decrease in saving per dollar increase in consumption expenditure.
C) the increase in saving per dollar increase in disposable income.
D) total saving divided by total consumption expenditure.

11) The marginal propensity to consume (MPC) represents the proportion of each additional dollar of disposable income that we spend. The marginal propensity to save (MPS) is the proportion of each additional dollar of disposable income that we save. Recognize that the MPC and MPS should add up to zero, meaning that for each additional dollar of disposable income, households either save it or spend it. Answer: C.
<table>
<thead>
<tr>
<th>Disposable income (dollars)</th>
<th>Consumption expenditure (dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>225</td>
</tr>
<tr>
<td>200</td>
<td>300</td>
</tr>
<tr>
<td>300</td>
<td>375</td>
</tr>
<tr>
<td>400</td>
<td>450</td>
</tr>
<tr>
<td>500</td>
<td>525</td>
</tr>
<tr>
<td>600</td>
<td>600</td>
</tr>
</tbody>
</table>

12) Using the data in above table, the marginal propensity to consume is
   A) constant at 0.25.
   B) equal to 1.0 when disposable income equals $600.
   C) constant at 0.75.
   D) increasing as disposable income increases.

12) In the table, you will notice that for every 100 dollar increase in disposable income (say, from 200 to 300), there was a 75 dollar increase in consumption expenditure (300 to 375). Normalizing to the unit of a single dollar, the table shows that for every dollar of increased disposable income, 75 cents goes towards spending. This relationship of between disposable income and consumption expenditure remains constant for all values in the table. Hence, the MPC is constant throughout. Answer: C.

13) For a household, the marginal propensity to save plus the marginal propensity to consume
   A) equals 0.
   B) equals a number that is larger the larger the household's disposable income.
   C) equals 1.
   D) equals a number that is smaller the larger the household's disposable income.

13) In the explanation for question 11, it was noted that for every additional dollar of disposable income, it either goes towards consumption expenditure or savings. In other words, the MPC and MPS will always add to 1. Answer: C.
20) In the above figure, at the equilibrium, induced expenditure is
   A) $100 billion.                          B) $200 billion.
   C) some amount not given in the above answers.  D) $300 billion.

20) The figure above graphs Aggregate Planned Expenditure with Real GDP. The
    equilibrium amount of aggregate expenditure is equal to $300 billion. Of that $300
    billion, 200 represents autonomous expenditure, meaning that even if the economy
    yielded no income (Real GDP), households would still plan to spend $200 billion.
    Induced expenditure is the amount of aggregate planned expenditure that varies with
    real GDP. Therefore, it is the equilibrium amount of AE minus the autonomous
    expenditure. 300 - 200 = 100. Answer: A

21) In the above figure, autonomous expenditure is
   A) $200 billion.                          B) $100 billion.
   C) $300 billion.                          D) some amount not given in the above answers.

20) See explanation for question 20.
23) If real GDP is $2 billion and planned aggregate expenditure is $2.25 billion, inventories will
  A) be depleted and output will decrease.  B) be depleted and output will increase.
  C) pile up and output will decrease.              D) pile up and output will increase.

23) If the economy produces $2 billion worth of goods in a period, while households plan to spend $2.25 billion, then the difference will come out of business inventories. Inventories will be depleted, but firms will respond by hiring more capital and labor to increase production for the next period. Firms will respond by increasing their output to restore inventories to their target or planned levels. Answer: B

24) If prices are fixed, an increase in aggregate expenditures results in an increase in equilibrium GDP that
  A) is greater than the change in aggregate expenditure.
  B) is less than the change in aggregate expenditure.
  C) has no necessary relationship to the size of the change in aggregate expenditure.
  D) is equal to the change in aggregate expenditure.

24) Think about the slope of the AE line. It is less than 1, meaning that while aggregate expenditure and real GDP will increase together, the rise (AE) will be less than the run (real GDP). Because the slope of the AE line is less than 1, an increase in AE will generate an even larger increase in real GDP. Answer: A
25) Because of the multiplier, a one-time change in expenditure will
   A) expand income by an infinite amount.
   B) generate more additional income than the initial change in expenditure.
   C) decrease saving and investment activity and future income.
   D) have little secondary effect on income.

25) The multiplier is the amount by which a change in autonomous expenditure is
magnified or multiplied to determine the change in equilibrium expenditures and real
GDP. The multiplier's effect can be seen by shifting the AE curve up by a small
amount. The upward shift represents an increase in autonomous expenditure. You
will notice, however, that the intersection between the 45 degree line and the new AE
curve is at a level of real GDP that is a much greater increase from initial real GDP
than the increase in autonomous expenditure. In other words, an increase in
autonomous income will generate more additional income than the initial change in
expenditure. The same concept can be applied to a one-time change in expenditure.
Answer: B