Questions and Answers

Chapter 3

Q1: MCQ

1. The most important determinant of consumer spending is:
   
   A) the level of household debt. C) the stock of wealth.
   B) consumer expectations. D) the level of income.
   Answer: D

2. The most important determinant of consumption and saving is the:
   
   A) level of bank credit. B) level of income. C) interest rate. D) price level.
   Answer: B

3. If Smith's disposable income increases from $1,200 to $1,700 and her level of saving increases from minus $100 to a plus $100, her marginal propensity to:
   
   A) save is three-fifths. C) consume is three-fifths.
   B) consume is one-half. D) consume is one-sixth.
   Answer: C

4. With an MPS of .4, the MPC will be:
   
   A) 1.0 minus .4. B) .4 minus 1.0. C) the reciprocal of the MPS. D) .4.
   Answer: A

5. The MPC can be defined as that fraction of a:
   
   A) change in income that is not spent. C) given total income that is not consumed.
   B) change in income that is spent. D) given total income that is consumed.
   Answer: B

6. The 45-degree line on a graph relating consumption and income shows:
   
   A) all points where the MPC is constant.
   B) all points at which saving and income are equal.
   C) all the points at which consumption and income are equal.
   D) the amounts households will plan to save at each possible level of income.
   Answer: C

7. As disposable income goes up the:
   
   A) APC falls. C) volume of consumption declines absolutely.
B) APS falls. D) volume of investment diminishes.
Answer: A

8. The consumption schedule shows:

A) that the MPC increases in proportion to GDP.
B) that households consume more when interest rates are low.
C) that consumption depends primarily on the level of business investment.
D) the amounts households plan or intend to consume at various possible levels of aggregate income.
Answer: D

9. The consumption schedule relates:

A) consumption to the level of disposable income. C) disposable income to domestic income.
B) saving to the level of disposable income. D) consumption to saving.
Answer: A

10. A decline in disposable income:

A) increases consumption by moving upward along a specific consumption schedule.
B) decreases consumption because it shifts the consumption schedule downward.
C) decreases consumption by moving downward along a specific consumption schedule.
D) increases consumption because it shifts the consumption schedule upward.
Answer: C

11. The APC is calculated as:

A) change in consumption / change in income C) change in income / change in consumption
B) consumption / income D) income / consumption
Answer: B

12. The consumption schedule shows:

A) a direct relationship between aggregate consumption and accumulated wealth.
B) a direct relationship between aggregate consumption and aggregate income.
C) an inverse relationship between aggregate consumption and accumulated financial wealth.
D) an inverse relationship between aggregate consumption and aggregate income.
Answer: B

13. The APC can be defined as the fraction of a:

A) change in income that is not spent.
B) change in income that is spent.
C) specific level of total income that is not consumed.
D) specific level of total income that is consumed.
Answer: D
14. The consumption schedule in the above diagram indicates that:

A) consumers will maximize their satisfaction where the consumption schedule and 45° line intersect.
B) up to a point consumption exceeds income, but then falls below income.
C) the MPC falls as income increases.
D) households consume as much as they earn.
Answer: B

15. The consumption schedule is drawn on the assumption that as income increases consumption will:

A) be unaffected.
B) increase absolutely, but remain constant as a percentage of income.
C) increase absolutely, but decline as a percentage of income.
D) increase both absolutely and as a percentage of income.
Answer: C

16. Which of the following is correct?

A) APC + APS = 1. B) APC + MPS = 1. C) APS + MPC = 1. D) APS + MPS = 1.
Answer: A

17. For all levels of income to the left of the intersection of the 45-degree line and the consumption schedule, the APC is:

A) greater than 100 percent.  B) less than the APS.
C) equal to the MPC.  D) equal to 100 percent.
Answer: A

18. The consumption and saving schedules reveal that the:

A) MPC is greater than zero, but less than one.
B) MPC and APC are equal at the point where the consumption schedule intersects the 45-degree line.
C) APS is positive at all income levels.
D) MPC is equal to or greater than one at all income levels.
Answer: A

19. The size of the MPC is assumed to be:
   A) less than zero. B) greater than one. C) greater than zero, but less than one. D) two or more.
   Answer: C

20. As disposable income increases, consumption:
   A) and saving both increase. C) decreases and saving increases.
   B) and saving both decrease. D) increases and saving decreases.
   Answer: A

21. The average propensity to consume indicates the:
   A) amount by which income exceeds consumption.
   B) relationship between a change in saving and the consequent change in consumption.
   C) percentage of total income that will be consumed.
   D) percentage of a change in income that will be consumed.

22. The relationship between consumption and disposable income is such that:
   A) an inverse and stable relationship exists between consumption and income.
   B) a direct, but very volatile, relationship exists between consumption and income.
   C) a direct and relatively stable relationship exists between consumption and income.
   D) the two are always equal.
   Answer: C

23. If the MPC is .8 and disposable income is $200, then
   A) consumption and saving cannot be determined from the information given.
   B) saving will be $20.
   C) personal consumption expenditures will be $80.
   D) saving will be $40.
   Answer: A

24. The MPC for an economy is:
   A) the slope of the consumption schedule or line.
   B) the slope of the savings schedule or line.
   C) 1 divided by the slope of the consumption schedule or line.
   D) 1 divided by the slope of the savings schedule or line.
   Answer: A

25. In contrast to investment, consumption is:
A) relatively stable. B) relatively unstable. C) measurable. D) immeasurable.
Answer: A

Use the following to answer questions 26-27:

Answer the next question(s) on the basis of the following consumption schedule:
C = 20 + .9Y,
where C is consumption and Y is disposable income.

26. Refer to the above data. The MPC is:
A) .45. B) .20. C) .50. D) .90.
Answer: D

27. Refer to the above data. At an $800 level of disposable income, the level of saving is:
Answer: C

28. Which one of the following will cause a movement down along an economy's consumption schedule?
A) an increase in stock prices
B) a decrease in stock prices
C) an increase in consumer indebtedness
D) a decrease in disposable income
Answer: D

29. The above diagram shows consumption schedules for economies A and B. We can say that the:
A) MPC is greater in B than in A.
B) APC at any given income level is greater in B than in A.
C) MPS is smaller in B than in A.
D) MPC is greater in A than in B.
Answer: D
30. At the point where the consumption schedule intersects the 45-degree line:

A) the MPC is 1.00.  
B) the APC is 1.00.  
C) saving is equal to consumption.  
D) the economy is in equilibrium.  
Answer: B

31. Holly's break-even level of income is $10,000 and her MPC is 0.75. If her actual disposable income is $16,000, her level of:

A) consumption spending will be $14,500.  
B) consumption spending will be $15,500.  
C) saving will be $2,500.  
D) saving will be $2,500.  
Answer: A

32. If Ben's MPC is .80, this means that he will:

A) spend eight-tenths of any increase in his disposable income.  
B) spend eight-tenths of any level of disposable income.  
C) break even when his disposable income is $8,000.  
D) save two-tenths of any level of disposable income.  
Answer: A

33. Suppose a family's consumption exceeds its disposable income. This means that its:

A) MPC is greater than 1.  
B) MPS is negative.  
C) APC is greater than 1.  
D) APS is positive.  
Answer: C

34. If the equation for the consumption schedule is \( C = 20 + 0.8Y \), where \( C \) is consumption and \( Y \) is disposable income, then the average propensity to consume is 1 when disposable income is:

A) $80.  
B) $100.  
C) $120.  
D) $160.  
Answer: B

35. The equation \( C = 35 + .75Y \), where \( C \) is consumption and \( Y \) is disposable income, shows that:

A) households will consume three-fourths of whatever level of disposable income they receive.  
B) households will consume $35 if their disposable income is zero and will consume three-fourths of any increase in disposable income they receive.  
C) there is an inverse relationship between disposable income and consumption.  
D) households will save $35 if their disposable income is zero and will consume three-fourths of any increase in disposable income they receive.  
Answer: B

36. If the equation \( C = 20 + .6Y \), where \( C \) is consumption and \( Y \) is disposable income, were graphed:
37. One can determine the amount of any level of total income that is consumed by:

A) multiplying total income by the slope of the consumption schedule.
B) multiplying total income by the APC.
C) subtracting the MPS from total income.
D) multiplying total income by the MPC.
Answer: B

38. Which of the following is correct?

A) MPC + MPS = APC + APS
B) APC + MPS = APS + MPC
C) APC + MPC = APS + MPS
D) APC - APS = MPC - MPS
Answer: A

39. The consumption and saving schedules reveal that:

A) consumption rises, but saving declines, as disposable income rises.
B) saving varies inversely with the profitability of investment.
C) saving varies directly with the level of disposable income.
D) saving is inversely related to the rate of interest.
Answer: C

40. Dissaving means:

A) the same thing as disinvesting.
B) that households are spending more than their current incomes.
C) that saving and investment are equal.
D) that disposable income is less than zero.
Answer: B

41. Dissaving occurs where:

A) income exceeds consumption.
B) saving exceeds consumption.
C) consumption exceeds income.
D) saving exceeds income.
Answer: C

42. Which of the following relations is not correct?

A) 1 - MPC = MPS
B) APS + APC = 1
C) MPS = MPC + 1
D) MPC + MPS = 1
Answer: C
43. The saving schedule is drawn on the assumption that as income increases:

A) saving will decline absolutely and as a percentage of income.
B) saving will increase absolutely, but remain constant as a percentage of income.
C) saving will increase absolutely, but decline as a percentage of income.
D) saving will increase absolutely and as a percentage of income.
Answer: D

44. At the point where the consumption schedule intersects the 45-degree line:

A) the MPC equals 1.  
B) the APC is zero.
C) saving equals income.  
D) saving is zero.
Answer: D

45. The saving schedule is such that as aggregate income increases by a certain amount saving:

A) increases by the same amount as the increase in income.
B) does not change.
C) increases, but by a smaller amount.
D) increases by an even larger amount.
Answer: C

46. If the consumption schedule is linear, then the:

A) saving schedule will also be linear.  
B) MPS will decline as income rises.
C) MPC will decline as income rises.  
D) APC will be constant at all levels of income.
Answer: A

47. Given the consumption schedule, it is possible to graph the relevant saving schedule by:

A) subtracting the MPC from 1 at each level of income.
B) subtracting investment from consumption at each level of GDP.
C) plotting the horizontal differences between the consumption schedule and the 45-degree line.
D) plotting the vertical differences between the consumption schedule and the 45-degree line.
Answer: D

48. As aggregate income decreases, the APC:

A) and APS will both increase.  
B) will decrease, but the APS will increase.
C) will increase, but the APS will decrease.  
D) and APS will both decrease.
Answer: C

49. If the marginal propensity to consume is 0.9, then the marginal propensity to save must be:

A) 1.  
B) 0.1.  
C) 1.1.  
D) 0.9.
Answer: B
50. The greater is the marginal propensity to consume, the:

   A) smaller is the marginal propensity to save.  C) lower is the average propensity to consume.
   B) higher is the interest rate.  D) lower is the price level.
   Answer: A

51. If the saving schedule is a straight line, the:

   A) MPS must be constant.  C) APC must be constant.
   B) APS must be constant.  D) MPC must be rising.
   Answer: A

52. Which one of the following will cause a movement up along an economy's saving schedule?

   A) an increase in household debt outstanding  C) an increase in stock prices
   B) an increase in disposable income  D) an increase in interest rates
   Answer: B

53. The wealth effect is shown graphically as a:

   A) shift of the consumption schedule.
   B) movement along an existing consumption schedule.
   C) shift of the investment schedule.
   D) movement along an existing investment schedule.
   Answer: A

Use the following to answer questions 54-57:

54. Refer to the above graph. A movement from b to a along C1 might be caused by a:

   A) recession.
   B) wealth effect of an increase in stock market prices.
C) decrease in income tax rates.
D) increase in saving.
Answer: A

55. Refer to the above graph. A shift of the consumption schedule from C1 to C2 might be caused by a:

A) recession.
B) wealth effect of an increase in stock market prices.
C) increase in income tax rates.
D) increase in saving.
Answer: B

56. Refer to the above graph. A movement from a to b along C1 might be caused by a:

A) recession.
B) wealth effect of an increase in stock market prices.
C) increase in income tax rates.
D) increase in real GDP.
Answer: D

57. Refer to the above graph. A shift of the consumption schedule from C2 to C1 might be caused by a:

A) increase in real GDP.
B) reverse wealth effect, caused by a decrease in stock market prices.
C) decrease in income tax rates.
D) decrease in saving.
Answer: B

58. An upward shift of the saving schedule suggests:

A) nothing with respect to changes in the APC and APS.
B) that the APC and APS have both decreased at each GDP level.
C) that the APC and APS have both increased at each GDP level.
D) that the APC has decreased and the APS has increased at each GDP level.
Answer: D

59. Which of the following will not tend to shift the consumption schedule upward?

A) a currently small stock of durable goods in the possession of consumers
B) the expectation of a future decline in the consumer price index
C) a currently low level of household debt.
D) the expectation of future shortages of essential consumer goods.
Answer: B

60. If the consumption schedule shifts upward and the shift was not caused by a tax change, the saving schedule:
A) will not shift.  
C) will shift downward.  
B) may shift either upward or downward.  
D) will also shift upward.  
Answer: C

61. Which of the following will not cause the consumption schedule to shift?

A) a sharp increase in the amount of wealth held by households  
B) a change in consumer incomes  
C) the expectation of a recession  
D) a growing expectation that consumer durables will be in short supply  
Answer: B

62. An increase in personal taxes will shift:

A) both the consumption and saving schedules downward.  
B) both the consumption and saving schedules upward.  
C) the consumption schedule upward and the saving schedule downward.  
D) the consumption schedule downward and the saving schedule upward.  
Answer: A

63. If for some reason households become increasingly thrifty, we could show this by:

A) a downshift of the saving schedule.  
B) an upshift of the consumption schedule.  
C) an upshift of the saving schedule.  
D) an increase in the equilibrium GDP.  
Answer: C

64. Suppose the economy’s saving schedule shifts from S1 to S2 as shown in the above diagram. We can say that its:

A) MPC has increased.  
B) MPS has increased.  
C) APS has increased at all levels of disposable income.
65. If a consumption schedule shifts upward, this necessarily means that the:
   A) MPC has increased.
   B) MPS has decreased.
   C) APC is now higher at each level of disposable income.
   D) APC is now lower at each level of disposable income.
   Answer: C

66. Assume the economy's consumption and saving schedules simultaneously shift downward. This must be the result of:
   A) an increase in disposable income.
   B) an increase in household wealth.
   C) an increase in personal taxes.
   D) the expectation of a recession.
   Answer: C

67. Suppose an economy's consumption schedule shifts from $C_1$ to $C_2$ as shown in the above diagram. We can say that its:
   A) MPC has increased but its APC at each income level is unchanged.
   B) APC at each income level is increased but its MPC is unchanged.
   C) MPC and APC at each income level have both increased.
   D) MPC and APC at each income level have both decreased.
   Answer: C

Use the following to answer questions 68-70:

<table>
<thead>
<tr>
<th>Disposable income</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
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<td>275</td>
<td>265</td>
</tr>
<tr>
<td>300</td>
<td>285</td>
</tr>
</tbody>
</table>
68. Refer to the above data. The marginal propensity to consume is:

A) .25. B) .75. C) .20. D) .80.
Answer: D

69. Refer to the above data. At the $200 level of disposable income:

A) the marginal propensity to save is 2½ percent.
B) dissaving is $5.
C) the average propensity to save is .20.
D) the average propensity to consume is .80.
Answer: B

70. Refer to the above data. If disposable income was $325, we would expect consumption to be:

Answer: B

Use the following to answer questions 71-76:

71. Refer to the above diagram. The average propensity to consume is 1 at point:

A) F. B) A. C) D. D) B.
Answer: B

72. Refer to the above diagram. The marginal propensity to consume is equal to:

A) AE/0E. B) CF/CD. C) CB/AB. D) CD/CF.
Answer: C

73. Refer to the above diagram. At income level F the volume of saving is:
74. Refer to the above diagram. Consumption will be equal to income at:

A) an income of E. B) an income of F. C) point C. D) point D.
Answer: A

75. Refer to the above diagram. The economy is dissaving:

A) in the amount CD. C) at income level H.
B) at all income levels greater than E. D) at income level E.
Answer: C

76. Refer to the above diagram. The marginal propensity to save is:

A) CD/EF. B) CB/CF. C) CB/AF. D) EF/CB.
Answer: A

77. The above figure suggests that:

A) consumption would be $60 billion even if income were zero.
B) saving is zero at the $120 billion income level.
C) as income increases, consumption decreases as a percentage of income.
D) as income increases, consumption decreases absolutely.
Answer: C

78. Refer to the above figure. If the relevant saving schedule were constructed:

A) saving would be minus $20 billion at the zero level of income.
B) aggregate saving would be $60 at the $60 billion level of income.
C) its slope would be 1/2.
D) it would slope downward and to the right.
Answer: A
Answer the next question(s) on the basis of the following data for a hypothetical economy.

<table>
<thead>
<tr>
<th>Disposable income</th>
<th>Saving</th>
</tr>
</thead>
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<td>20</td>
</tr>
<tr>
<td>200</td>
<td>30</td>
</tr>
</tbody>
</table>

79. Refer to the above data. The marginal propensity to consume is:
A) .80. B) .75. C) .20. D) .25.
Answer: A

80. Refer to the above data. At the $100 level of income, the average propensity to save is:
A) .10. B) .20. C) .25. D) .90.
Answer: A

81. Refer to the above data. If plotted on a graph, the slope of the saving schedule would be:
A) .80. B) .10. C) .20. D) .15.
Answer: C

Use the following to answer questions 82-86

82. Refer to the above diagram. The marginal propensity to save is equal to:
A) CD/0D. B) 0B/0A. C) 0D/0D. D) CD/BD.
Answer: D
83. Refer to the above diagram. At disposable income level D, the average propensity to save is equal to:

A) CD/BD.  B) CD/D.  C) D/CD.  D) A/B.
Answer: B

84. Refer to the above diagram. At disposable income level D, consumption is:

A) equal to CD.  B) equal to D minus CD.  C) equal to CD/D.  D) equal to CD plus BD.
Answer: B

85. Refer to the above diagram. Consumption equals disposable income when:

A) disposable income is B.  B) disposable income is D.  C) CD equals A.  D) B equals CD.
Answer: A

86. The saving schedule shown in the above diagram would shift downward if, all else equal:

A) the average propensity to save increased at each income level.  
B) the marginal propensity to save rose at each income level.  
C) consumer wealth rose rapidly because of a significant increase in stock market prices.  
D) the real interest rate fell.
Answer: C

Use the following to answer questions 87-94:

Answer the next question(s) on the basis of the following consumption schedules. DI signifies disposable income and C represents consumption expenditures. All figures are in billions of dollars.

<table>
<thead>
<tr>
<th></th>
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<th>(2)</th>
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</tbody>
</table>

87. Refer to the above data. The marginal propensity to consume in economy (1) is:

A) .5.  B) .3.  C) .8.  D) .7.
Answer: D

88. Refer to the above data. The marginal propensity to consume:

A) is highest in economy (1).  B) is highest in economy (2).  C) is highest in economy (3).  D) cannot be calculated from the data given.
Answer: C
89. Refer to the above data. The marginal propensity to save:

A) is highest in economy (1).  
B) is highest in economy (2).  
C) is highest in economy (3).  
D) cannot be determined from the data given.  
Answer: A

90. Refer to the above data. At an income level of $40 billion, the average propensity to consume:

A) is highest in economy (1).  
B) is highest in economy (2).  
C) is highest in economy (3).  
D) cannot be determined from the data given.  
Answer: B

91. Refer to the above data. At an income level of $400 billion, the average propensity to save in economy (2) is:

A) .9125.  
B) .0725.  
C) .0875.  
D) .9305.  
Answer: C

92. Refer to the above data. When plotted on a graph, the vertical intercept of the consumption schedule in economy (3) is _____ and the slope is _____.

A) minus $2; .9.  
B) $2; .18.  
C) $100; .5.  
D) $2; .9.  
Answer: D

93. Refer to the above data. Suppose that consumption decreased by $2 billion at each level of DI in each of the three countries. We can conclude that the:

A) marginal propensity to consume will remain unchanged in each of the three countries.  
B) marginal propensity to consume will decline in each of the three countries.  
C) average propensity to save will fall at each level of DI in each of the three countries.  
D) marginal propensity to save will rise in each of the three countries.  
Answer: A

94. Refer to the above data. A $2 billion increase in consumption at each level of DI could be caused by:

A) a decrease in consumer wealth.  
B) new expectations of higher future income.  
C) an increase in taxation.  
D) an increase in saving.  
Answer: B

95. The level of aggregate expenditures in the private closed economy is determined by the:

A) expenditures of consumers and businesses.  
B) intersection of the saving schedule and the 45-degree line.  
C) equality of the MPC and MPS.  
D) intersection of the saving and consumption schedules.  
Answer: A
Use the following to answer questions 96-98:
Answer the next question(s) on the basis of the following data for a private closed economy.

<table>
<thead>
<tr>
<th>Possible levels of domestic output and income (GDP = DI)</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
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<td>330</td>
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<td>370</td>
<td>355</td>
</tr>
<tr>
<td>380</td>
<td>362</td>
</tr>
</tbody>
</table>

96. Refer to the above data. The MPS is:
   Answer: B

97. Refer to the above data. At the $370 billion level of DI the APS is approximately:
   A) 4 percent. B) 7 percent. C) 1 percent. D) 16 percent.
   Answer: A

98. Refer to the above data. If gross investment is $12 billion, the equilibrium level of GDP will be:
   Answer: C

99. Refer to the above diagram for a private closed economy. The equilibrium level of GDP is:
A) $400. B) $300. C) $200. D) $100.
Answer: B

100. Refer to the above diagram for a private closed economy. At the equilibrium level of GDP, investment and saving are both:

A) $50. B) $100. C) $20. D) $40.
Answer: A

101. Refer to the above diagram for a private closed economy. The $400 level of GDP is:

A) that output at which saving is zero. 
B) too high because consumption exceeds investment. 
C) unstable because aggregate expenditures exceed GDP. 
D) unstable because aggregate expenditures are less than GDP.
Answer: D

102. Refer to the above diagram for a private closed economy. Unplanned changes in inventories will be zero:

A) only at the $300 level of GDP. C) at all levels of GDP. 
B) only at the $200 level of GDP. D) only at the $400 level of GDP.
Answer: A

103. Refer to the above diagram that applies to a private closed economy. The APC is equal to 1 at income level:

A) J. B) M. C) H. D) G.
Answer: D

104. Refer to the above diagram that applies to a private closed economy. If aggregate expenditures are C + Ig2, the amount of saving at income level J is:

A) LK. B) KN. C) KD. D) JD.
Answer: B
105. Refer to the above diagram that applies to a private closed economy. The slope of the consumption schedule in this figure reveals that the:

A) MPS rises as income rises.  
C) APC is constant.  
B) MPC is constant.  
D) APC increases as income increases.  
Answer: B

106. Refer to the above diagram that applies to a private closed economy. If gross investment is Ig1, the equilibrium GDP and the level of consumption will be:

A) H and HB respectively.  
C) J and JK respectively.  
B) J and JI respectively.  
D) H and HF respectively.  
Answer: D

107. Other things equal, the slope of the aggregate expenditures schedule will increase as a result of:

A) a decline in the size of the inflationary gap.  
C) an increase in the MPS.  
B) an increase in the MPC.  
D) a decline in the general price level.  
Answer: B

108. The equilibrium level of GDP in a private closed economy is where:

A) MPC = APC.  
B) unemployment is about 3 percent of the labor force.  
C) consumption equals saving.  
D) aggregate expenditures equal GDP.  
Answer: D

109. In a private closed economy, when aggregate expenditures equal GDP:

A) consumption equals investment.  
B) consumption equals aggregate expenditures.  
C) planned investment equals saving.  
D) disposable income equals consumption minus saving.  
Answer: C

110. In a private closed economy, when aggregate expenditures exceed GDP:

A) GDP will decline.  
C) saving will decline.  
B) business inventories will rise.  
D) business inventories will fall.  
Answer: D

111. If an unintended increase in business inventories occurs at some level of GDP, then GDP:

A) entails a rate of aggregate expenditures in excess of the rate of aggregate production.  
B) may be either above or below the equilibrium output.
C) is too low for equilibrium.
D) is too high for equilibrium.
Answer: D

112. The equilibrium level of GDP is associated with:

A) an excess of planned investment over saving.
B) no unintended changes in inventories.
C) an unintended decrease in business inventories.
D) an unintended increase in business inventories.
Answer: B

113. Which aggregate expenditure schedule AE in the above diagram for a private closed economy implies the largest MPC, assuming investment is the same at each level of income?

A) AE4  B) AE3  C) AE2  D) AE1
Answer: A

114. If at some level of GDP the economy is experiencing an unintended decrease in inventories:

A) the aggregate level of saving will decline.  C) the business sector will lay off workers.
B) the price level will fall.  D) domestic output will increase.
Answer: D

115. The equilibrium GDP is the level of domestic output:

A) where consumption equals saving.  C) which is sustainable.
B) where actual investment equals consumption.  D) where full employment exists.
Answer: C

116. If an unintended increase in business inventories occurs:
A) we can expect aggregate production to be unaffected.  
B) we can expect businesses to increase the level of production.  
C) we can expect businesses to lower the level of production.  
D) aggregate expenditures must exceed the domestic output.  
Answer: C

117. Assume that in a private closed economy consumption is $240 billion and investment is $50 billion, both at the $280 billion level of domestic output. Thus:

A) saving is $10 billion.  
B) unplanned decreases in inventories of $10 billion will occur.  
C) the MPC is .80.  
D) unplanned increases in inventories of $10 billion will occur.  
Answer: B

118. A private closed economy will expand when:

A) actual GDP is less than potential GDP.  
B) unplanned decreases in inventories occur.  
C) aggregate expenditures are less than GDP.  
D) unplanned increases in inventories occur.  
Answer: B

119. If aggregate expenditures exceed GDP in a private closed economy:

A) leakages will exceed injections.  
B) planned investment will exceed saving.  
C) unplanned investment in inventories will occur.  
D) saving will exceed planned investment.  
Answer: B

120. For a private closed economy, an unintended decline in inventories suggests that:

A) aggregate expenditures are less than the business sector expected them to be.  
B) aggregate expenditures exceed GDP.  
C) actual investment exceeds saving.  
D) planned investment is greater than consumption.  
Answer: B
121. Refer to the above diagram for a private closed economy. The equilibrium GDP is:

A) $60 billion.  
B) $180 billion.  
C) between $60 and $180 billion.  
D) $60 billion at all levels of GDP.  
Answer: B

122. Refer to the above diagram for a private closed economy. In this economy investment:

A) decreases as GDP increases.  
B) increases as GDP increases.  
C) is $40 billion at all levels of GDP.  
D) is $60 billion at all levels of GDP.  
Answer: C

123. Refer to the above diagram for a private closed economy. In this economy aggregate expenditures:

A) do not change as GDP increases.  
B) increase by $2 for every $5 increase in GDP.  
C) increase by $2 for every $4 increase in GDP.  
D) increase by $2 for every $3 increase in GDP.  
Answer: D

124. Refer to the above diagram for a private closed economy. Aggregate saving in this economy will be zero when:

A) $C + Ig$ cuts the 45-degree line.  
B) GDP is $180$ billion.  
C) GDP is $60$ billion.  
D) GDP is also zero.  
Answer: C

125. For a private closed economy aggregate expenditures consist of:
A) C + Ig.  B) C - Ig.  C) C + S.  D) C - S.
Answer: A

Use the following to answer questions 126-128:

Answer the next question(s) on the basis of the following consumption and investment data for a private closed economy. Figures are in billions of dollars.
C = 60 + .6Y
I = I0 = 30

126. Refer to the above data. The equilibrium level of income (Y) is:
Answer: B

127. Refer to the above data. In equilibrium the level of consumption spending will be:
Answer: D

128. Refer to the above data. In equilibrium the level of saving will be:
Answer: A

Use the following to answer questions 129-131:

Answer the next question(s) on the basis of the following information for a private closed economy, where Ig is gross investment, S is saving, and Y is gross domestic product (GDP).

\[ I_g = I_g = 80 \]
\[ S = -80 + .4Y \]

129. Refer to the above information. The equilibrium GDP will be:
Answer: B

130. Refer to the above information. In equilibrium consumption will be:
Answer: C

131. Refer to the above information. In equilibrium saving will be:
A) $40.  B) $120.  C) $60.  D) $80.
Answer: D
132. What will be the effect of an excess of planned investment over saving in a private closed economy with unemployed resources?

A) a decline in the rate of interest  
B) an unintended accumulation of inventories by businesses  
C) a rise in the real GDP  
D) the Federal budget will automatically move toward a deficit

Answer: C

133. Which of the following statements is correct for a private closed economy?

A) Saving equals planned investment only at the equilibrium level of GDP.  
B) All levels of GDP where planned investment exceeds saving will be too high for equilibrium.  
C) Planned and actual investment are identical at all possible levels of GDP.  
D) Saving equals actual investment only at the equilibrium level of GDP.

Answer: A

134. At the $180 billion equilibrium level of income, saving is $38 billion in a private closed economy. Planned investment must be:

A) $138 billion.  
B) $126 billion.  
C) $38 billion.  
D) $180 billion.

Answer: C

135. In which of the following situations for a private closed economy will the level of GDP expand?

A) when planned investment exceeds saving  
B) when planned investment exceeds consumption  
C) when saving exceeds consumption  
D) when consumption exceeds investment

Answer: A

136. Planned investment plus unintended increases in inventories equals:

A) actual investment.  
B) consumption of fixed capital.  
C) consumption minus saving.  
D) unintended saving.

Answer: A

137. Planned investment equals saving:

A) at all levels of GDP.  
B) at all below-equilibrium levels of GDP.  
C) at all above-equilibrium levels of GDP.  
D) only at the equilibrium GDP.

Answer: D

138. That the economy has achieved aggregate equilibrium is indicated by:

A) an equality of saving and planned investment.  
B) an equality of aggregate expenditures and GDP.  
C) the absence of unplanned changes in inventories.  
D) all of the above.
139. Unintended changes in inventories:

A) cause the economy to move away from the equilibrium GDP.
B) are treated as components of consumption.
C) bring actual investment and saving into equality only at the equilibrium level of GDP.
D) bring actual investment and saving into equality at all levels of GDP.
Answer: D

140. Investment and saving are, respectively:

A) income and wealth.  
B) stocks and flows.  
C) injections and leakages.  
D) leakages and injections.
Answer: C

141. In a private closed economy (a) the marginal propensity to save is 0.25, (b) consumption equals income at $120 billion, and (c) the level of investment is $40 billion. What is the equilibrium level of income?

A) $280 billion  
B) $320 billion  
C) $262 billion  
D) $198 billion
Answer: A

142. If the marginal propensity to consume is 0.9 in a private closed economy, a $20 billion decline in investment spending will decrease:

A) GDP by $20 billion.  
B) GDP by $100 billion.  
C) saving by $20.  
D) consumption by $200 billion.
Answer: C

143. Suppose that the level of GDP increased by $100 billion in a private closed economy where the marginal propensity to consume is 0.5. Aggregate expenditures must have increased by:

A) $100 billion.  
B) $50 billion.  
C) $500 billion.  
D) $5 billion.
Answer: B

144. Assume the consumption schedule for a private closed economy is \( C = 40 + 0.75Y \), where \( C \) is consumption and \( Y \) is gross domestic product. The multiplier for this economy is:

A) 3.  
B) 4.  
C) 5.  
D) 10.
Answer: B

145. Assume the saving schedule for a private closed economy is \( S = -20 + 0.2Y \), where \( S \) is saving and \( Y \) is gross domestic product. The multiplier for this economy is:

A) 3.  
B) 4.  
C) 5.  
D) 10.
Answer: C
146. Refer to the above diagram for a private closed economy. The marginal propensity to consume is:

A) GF/GB.  
B) DA/GB.  
C) FE/DE.  
D) FB/0B.  

Answer: C

147. Refer to the above diagram for a private closed economy. The up-shift of the aggregate expenditures schedule from \((C + I_g)_1\) to \((C + I_g)_2\) reflects:

A) an increase in investment expenditures.  
B) a decrease in consumption expenditures.  
C) an increase in the MPC.  
D) an increase in the APS.  

Answer: A

148. Refer to the above diagram for a private closed economy. The multiplier is:

A) GF/DE.  
B) GF/GB.  
C) FE/GF.  
D) AB/GF.  

Answer: D

Q2. True Or false

1. In the private closed economy, equilibrium GDP occurs where \(C + I_g = GDP\).

Answer: True

2. When \(C + I_g = GDP\) in a private closed economy, \(S = I\) and there are no unplanned changes in inventories.

Answer: True
3. If C + Ig exceeds GDP in a private closed economy, GDP will decline.
Answer: False

4. If the MPC is .8 in a private closed economy, a $30 billion increase in planned investment will increase equilibrium real GDP by $120 billion.
Answer: False

5. Actual investment consists of planned investment plus unplanned changes in inventories (plus or minus.)
Answer: True

6. A $20 billion decrease in investment in a private closed economy that has an MPS of .5 will reduce saving by $10 billion once the multiplier process has ended.
Answer: False

7. The sum of APS and APC must be one
True, \( \text{APC} + \text{APS} = 1 \) Because \( Y_D = C + S \)
\[
\frac{Y_D}{Y_D} = \frac{C}{Y_D} + \frac{S}{Y_D} = 1
\]

8. MPC is constant along a straight line consumption line.
True,
\[
\text{MPC}\,+\,\text{MPS} = 1 \text{ Because } Y_D = C + S
\]
\[
\frac{\Delta Y_D}{\Delta Y_D} = \frac{\Delta C}{\Delta Y_D} + \frac{\Delta S}{\Delta Y_D} = 1
\]

9. An increase in interest rate leads to an increase in equilibrium national income.
False, because an increase in interest rate leads to a decrease in autonomous investment and finally the AE function. So final equilibrium national income will be less (from \( Y_1 \) to \( Y_2 \)) (with graph)

10. There is an inverse relation between income and APS.
True, Because \( \text{APS} = \frac{S}{Y} \) at higher the levels of income, APS is decreasing.
11. The slope of the income line equals zero. (With graph)

**False,** The slope is one because the income line is a 45° line where \( C = Y \) and its slope equals one. Along the 45° line (vertical distance (\( e \) n) = horizontal distance (\( e' \) n)).

12. A change in wealth (\( a \)) by 50 will cause the national income (\( Y^* = 1000 \)) to change by 100 assuming \( Z = 0.75 \).

**False,** an increase in (\( a \)) leads to an increase in autonomous consumption and \( AE = A + Z Yd \)

\[
K = \frac{1}{1-b} = \frac{1}{1-0.75} = 4 = \frac{\Delta Y}{\Delta a} , 4 = \frac{\Delta Y}{50} , \Delta Y = 200
\]

13. The change in real wealth has the same effect as the increase in autonomous investment on the new equilibrium level of national income

**True,** as (\( a \)) or (\( I \)) increase , that will cause the AE function to shift upward and it leads to an increase in equilibrium national income (graph of No. 12)

14. When consumption function intersects with income line APC is zero.

**False,** because it is a break even point where \( C = Y \) and \( S = 0 \), So \( APC=1 \) and \( APS=0 \)

15. An increase in real interest rate leads to an increase in equilibrium level of national income

**False,** because an increase in real interest rate leads to a decrease in autonomous investment and that causes a decrease in equilibrium national income .

16. If the slope of the consumption function is decreasing then the slope of the saving function is increasing .
**True,** Because MPC+MPS =1 , so the slope of the saving function is increasing at the expense of the decrease in the slope of the consumption function and vice versa,

17. The multiplier (Keynesian multiplier) is always greater than 1 if T = 0 and G =0.

**True.** Goods Market Eqm

\[ Y = C + I + G \]

\[ Y = [c0 + c1 Y - c1 T] + I + G 1 \]

multiplier → \[ 1/(1-c1) \]

If \(0 < c1 < 1\) → \(1/(1-c1) >1\)

If the marginal propensity to consume is less than 1, it means that people consume less than 100% of their disposable income. It also implies that the multiplier is greater 1. The fact that \(T = 0\) and \(G = 0\) is irrelevant.

**Q3.** If you are given the following consumption function:

\[ C=50+0.9 Y \]

Calculate the change in equilibrium national income due to an increase in desired investment by $100 and explain the result.

Solution:

\[ K = 1 / (1-b) = 1 / (1-0.9)= 10. \]

\[ K= \Delta Y/\Delta I , \text{ then } 10 = \Delta Y/ 100 \]

\[ \Delta Y= 100\times10 =1000 \]

Equilibrium national income increased by 1000 due to an increase in desired investment by $100 as long as the multiplier equals 10.

**Q4. If** the value of simple multiplier in a closed economy is (K= 2.5) . Calculate the MPS out of disposable income

Solution:

\[ K = 1 / (MBS) , \text{ then } 2.5 = 1 / (MBS) , \text{ MBS= } 1/2.5 = 0.4 \]

**Q5.** An economy is characterized by the following relationships:

\[ C=500+0.6 Y \]

\[ I= 300 \]

a) Derive the AE function

b) Calculate the equilibrium national income.

c) Calculate consumption on that level of \(Y^*\).

d) Find the value of the simple Multiplier
e) If investment rises by 100 calculate $\Delta Y$ and $Y^*$

f) Show graphically your results.

Solution:

a) In closed economy without government

$$AE = C + I$$

$$AE = 500 + 0.6 Y + 300$$

$$= 800 + 0.6 Y$$

b) In equilibrium: $AE = Y$

$$Y = 800 + 0.6 Y$$

$$Y - 0.6 Y = 800$$

$$0.4 Y = 800$$

$$Y = \frac{800}{0.4} = 2000$$

c)

$$C = 500 + 0.6 (2000)$$

$$= 500 + 1200 = 1700$$

d) $K = \frac{1}{1 - b} = \frac{1}{1 - 0.6} = \frac{1}{0.4} = 2.5$

e) $K = \frac{\Delta Y}{\Delta I}$,

$$2.5 = \frac{\Delta Y}{100}$$

$$\Delta Y = 100 \times 2.5 = 250$$

$$Y' = Y + \Delta Y = 2000 + 250 = 2250$$

f)