Suggested Solutions to Assignment Three

Part A   **Multiple-Choice Questions**   **[30 marks]**

Each question is worth 2 marks. There is no negative marking for wrong answers

To answer each question correctly, you have to choose the best answer from the given four choices.

1. C
2. B
3. C
4. A
5. C
6. C
7. D
8. B
9. C
10. A
11. D
12. D
13. B
14. B
15. B

Part B   Problem Solving Questions   [40 marks]

Answer all parts of the following three questions.

B-1   What effects would each of the following have on aggregate demand or short-run aggregate supply? In each case use a diagram to show the expected effects on the equilibrium price level and level of real output. Assume that all other things remain constant.

   a.   A widespread fear of depression on the part of consumers.

   b.   A $2 increase in the excise tax on a pack of cigarettes.

   c.   A reduction in interest rates at each price level.

   d.   A major increase in federal spending for health care.

   e.   The expectation of rapid inflation.

   f.   The complete disintegration of OPEC, causing oil prices to fall by one-half.

   g.   A 10 percent reduction in personal income tax rates.

   h.   A sizable increase in labor productivity (with no change in nominal wages).

   i.   A 12 percent increase in nominal wages (with no change in productivity).

   j.   Depreciation in the international value of the dollar.

[Draw the appropriate diagrams following Figures 8-7, 8-8, 8-9 and 8-10 of the text book]

(a) AD curve left, output down, and price level down (assuming prices are flexible downward).

(b) AS curve left, output down, and price level up.

(c) AD curve right, output and price level up.

(d) AD curve right, output and price level up (any real improvements in health care resulting from the spending would eventually increase productivity and shift AS right).

(e) AD curve right, output and price level up.

(f) AS curve right, output up and price level down.

(g) AD curve right, output and price level up.

(h) AS curve right, output up and price level down.

(i) AS curve left, output down and price level up.

(j) AD curve right (increased net exports); AS curve left (higher input prices). Price level up. But the effect on output is ambiguous. Output can increase, decrease or remain unchanged depending on the magnitude of the shifts in the AD and AS curves.

B-2   Suppose the full employment level of real output (Q) for a hypothetical economy is $250 and the price level (P) initially is 100. Use the short-run aggregate supply schedules below to answer the questions which follow:

AS($P=100$)		AS($P=125$)		AS($P=75$)	
P	Q	P	Q	P	Q
125	280	125	250	125	310
100	250	100	220	100	280
75	220	75	190	75	250

a. What will be the level of real output in the ***short run*** if the price level unexpectedly rises from 100 to 125 because of an increase in aggregate demand? What if the price level falls unexpectedly from 100 to 75 because of a decrease in aggregate demand? Explain each situation, using numbers from the table.

b. What will be the level of real output in the ***long run*** when the price level rises from 100 to 125? When it falls from 100 to 75? Explain each situation.

c. Show the circumstances described in parts a and b on a graph, and derive the long-run aggregate supply curve.

(a) $280; $220. When the price level rises from 100 to 125 [in aggregate supply schedule AS(P_{100})], producers experience higher prices for their products. Because nominal wages are constant, profits rise and producers increase output to $Q = \$280$. When the price level decreases from 100 to 75, profits decline and producers adjust their output to Q = $75. These are short-run responses to changes in the price level.

(b) $250; $250. In the long run, a rise in the price level to 125 leads to nominal wage increases. The AS(P_{100}) schedule changes to AS(P_{125}) and Q returns to $250, now at a price level of 125. In the long run, a decrease in price level to 75 leads to lower nominal wages, yielding aggregate supply schedule AS(P_{75}). Equilibrium Q returns to $250, now at a price level of 75.

(c) Graphically, the explanation is identical to Figure 8-11. Short-run AS: $P_1 = 100$; $P_2 = 125$; $P_3 = 75$; and $GDP_f = Q_f = \$250$; $GDP_2 = Q_2 = \$280$; and $GDP_3 = Q_3 = \$220$. Long-run aggregate supply (AS_{LR}) is vertical at $GDP_f = Q_f = \$250$ at each of the three price levels.