PART A

1. D
2. D
3. D
4. B
5. D
6. C
7. B
8. D
9. A
10. C
11. D
12. B
13. C
14. C
15. B
16. B
17. B
18. A
19. B
20. B
PART B

B-1. In the short-run, a continual decline in real estate price would lead an economy into a recession.

True.

Consider the AS/AD model which determines the price level and real GDP. Assume that the economy is initially at the long-run equilibrium $A$ in Figure-1 and there is no government intervention. A continual decline in the real estate price would make the owners of real estates poorer, so they would buy less goods and services. In addition, investment in the real estate sector would also decrease because people would be more willing to sell rather than buy new houses. This decrease in investment would decrease the aggregate demand too. Some of the construction workers would lose their jobs and become unemployed. So, the national income would also decrease which would lead to a further decrease in the demand for goods and services. Overall, the aggregate demand would decrease and AD curve would shift left to $AD_2$. Thus, the economy would slide into a recessionary short-run equilibrium $B$, where the price level is $P_2$ which is lower than the initial price level $P_1$, the real output is $Y_2$ which is lower than the initial potential output and the unemployment rate is higher than the natural rate of unemployment.

B-2. In the long-run, an economic boom in the U.S. would increase both the price level and real output of Canada.

False.

Consider the AS/AD model which determines the price level and real GDP. Assume that the economy is initially at the long-run equilibrium $A$ in Figure-2 and there is no government intervention. An economic boom in the U.S. means that U.S. real GDP is increasing at a higher rate. This means the U.S. citizens, on average, now have higher income. So, they would demand more Canadian goods and services. As a result, Canadian exports to U.S. would increase, which would turn, increase net exports and aggregate demand in Canadian economy. So, AD curve would shift right to $AD_2$ and the economy would move to a new short-run equilibrium $B$ with higher price and output level. To produce at B, which is beyond the potential output, firms need to compete with each other to hire labors and other factors of production. This competition would lead to increase in wages and other factor costs. Thus, in the long-run, costs of production would increase and the short-run aggregate supply curve would shift upward to $SAS_2$. In this long-run adjustment process, the economy would move to a new long-run equilibrium $C$ with a higher price level $P_3$ but no change in real GDP.
B-3. The unemployment rate is zero percent at the potential output.

False.

The unemployment is equal to the natural rate of unemployment, which is composed of structural unemployment and frictional unemployment, at the potential output. The natural rate of unemployment is also called the full employment rate of unemployment or target rate of unemployment. At the potential output, the economy is using labor and other factors of production at the highest sustainable rate possible. That means, there is no cyclical unemployment, unemployment resulting from fluctuations in economic activity, at the potential output. However, there are structural unemployment and frictional unemployment even at the potential output. The structural unemployment is caused by the economic restructuring which makes some skills obsolete. The frictional unemployment is caused by the search frictions (it refers to the time required to match an unemployed worker with an employer who wants to fill a vacancy) in the labor market. At any point in time, an economy will have these two types of unemployment. The time when an economy operates at the potential output is not an exception.

PART C

C1.

\[
\text{GDP} = C + I + G + (X – IM) = 500 + 185 + 195 + 4 = 884.
\]
\[
\text{GNP} = \text{GDP} + \text{net foreign factor income} = 884 + 2 = 886.
\]

C2.

\[
\text{NDP} = \text{GDP} – \text{depreciation} = 884 – 59 = 825.
\]
\[
\text{NI} = \text{GNP} – \text{depreciation} – \text{indirect business taxes less subsidies} = 886 – 59 – 47 = 780.
\]

C3.

\[
\text{PI} = \text{NI} + \text{transfers from government} – \text{corporate retained earnings (undistributed corporate profits)} – \text{corporate income taxes} – \text{EI and CPP contrib.} \\
= 780 + 72 – 51 – 64 – 35 = 702
\]

C4.

\[
\text{DPI} = \text{PI} – \text{personal income tax} = 702 – 91 = 611
\]