

請於答案卷上作答。
分析题與計算題請寫過程，計算過程錯誤不給分。
包括 $\%$ ，如需進位，請計算至小數點以下 3 位數。
1．Given the information in the table，

|  | Labor Hours Needed to Make One Unit of： |  |
| :--- | :---: | :---: |
|  | Baskets | Birdhouses |
| Montana | 6 | 3 |
| Missouri | 3 | 2 |

（1）the opportunity cost of 1 basket for Montana is＿＿＿birdhouse．（2\％）
（2）the opportunity cost of 1 basket for Missouri is birdhouse． （2\％）
（3）the opportunity cost of 1 birdhouse for Montana is $\qquad$ basket． （2\％）
（4）the opportunity cost of 1 birdhouse for Missouri is $\qquad$ baskets． （2\％）
（5）Which state has an absolute advantage in baskets？ $\qquad$ （2\％）
（6）Which state has a comparative advantage in baskets？ $\qquad$ （2\％）
（7）If Montana and Missouri trade based on the principle of comparative advantage， which goods will Montana export？ $\qquad$ ．$(2 \%)$

What will the terms of trade for this export good？ $\qquad$ （2\％）
$\cdot 2$ ．The demand function for movies is $D(P)=50-3 P+0.2 M$ ，where $P$ is the price and $M$ is income．When $\mathrm{P}=10, \mathrm{M}=100$ ，
（1）the income elasticity is $\qquad$ （2\％）
（2）the price elasticity is $\qquad$ （2\％）
（3）From the answer above，what kinds of goods movies are？For example，normal goods，inferior goods，necessary goods，or luxury goods．（4\％）


3．In the figure shown，（ $10 \%, 2 \%$ for each blank）

（1）Consumer surplus with free trade would be represented by the area of
$\qquad$ ． $2 \%$ ）
（2）The domestic price after the tariff would be $\qquad$ （2\％）
（3）Producer surplus after the tariff would be $\qquad$ ． $2 \%$ ）
（4）As a result of the tariff，government revenue would be $\qquad$ ．$(2 \%)$
（5 ）As a result of the tariff，deadweight loss would be $\qquad$ ．． ．$(2 \%)$

4．Suppose that a budget equation $20 \mathrm{X}+15 \mathrm{Y}=120$ ．Now if the government decides to impose a lump－sum tax of $\$ 30$ ，a quantity tax on good X of $\$ 10$ ，and a quantity subsidy on good Y of $\$ 10$ ．What is the new budget line？ $\qquad$ （8\％）

5. A firm has the following cost structure:

| Output | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Total Cost(\$) | 30 | 32 | 36 | 42 | 50 | 63 | 77 |

(1) If this firm is in a typical perfectly competitive market, in the long run it will
likely produce $\qquad$ units of output. (3\%)
(2) If a monopolistically competitive firm has the same cost structure, but with the following demand curve:

| Price (\$) | 20 | 18 | 15 | 12 | 9 | 7 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Quantity | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

To maximize profit (or minimize losses), the firm will produce $\qquad$ units. (3\%)
(3) If the government forces this firm to produce at its efficient scale, it will

- produce $\qquad$ units and earn (or lose) $\qquad$ . $4 \%$, with $2 \%$ each $)$

6. If the labor force participation rate is $60 \%$, there are 3 million people unemployed, and there are 30 million people not in the labor force. How many people are employed? (6\%)
7. The minimum monthly wage was set at NT\$600 in 1968. Now it is set at NT $\$ 19,000$ starting in January $1^{\text {st }}$ of 2013. Suppose the consumer price index is 20,100 , and 110 respectively in 1968,2006 , and 2013.

Then the real minimum monthly wages for the years of 1968 is $\qquad$ -
(3\%)
The real minimum monthly wages for the years of 2013 is $\qquad$ . (3\%)

8. Dong-hwa lives three periods. She earns nothing and pays her tuition for $\$ 100$ during the learning period, earns $\$ 1100$ during her working period, and receives welfare benefits for $\$ 484$ during her retirement period. She has initial assets of $\$ 500$. The real interest rate is $10 \%$. Please calculate the present value of her lifetime wealth. $\qquad$ (8\%)
9. Suppose the economy is characterized by the following equations:

Desired consumption: $\quad C^{d}=130+0.5(Y-T)-500 r$
Desired investment: $\quad I^{d}=100-500 r$
Real money demand: $\quad \dot{L}=30+0.5 Y-1000 i$
where i is the nominal interest rate, expected inflation rate is $\pi^{e}=0.03$, government purchase and taxes are equal at $G=\mathrm{T}=100$, nominal money supply is $M=1320$, and full employment level is $\underline{Y}=500$.
(1). Write the equations for IS and LM curves. (8 \%)
(2) Find the equilibrium values of the real interest rate and the price level. (6\%)
10. Suppose that a country's central bank increases the money supply. Illustrate how this policy affects interest rate and price level in the short and the long run. Also indicate how this policy will affect the nominal exchange rate. Explain your answer. (14\%)

