## 科目：經濟學

考試時間：100分鐘

系所：金融管理學系
本科原始成績：100分

是否使用計算機：否

## I ．Multiple Choice Questions（2 points each，total 60 points）

1．Consider a housing development built near an existing airport．After the houses are occupied， homeowners complain that the airport imposes a negative externality on them and it should be moved or otherwise limited．Is the airport a negative externality？
（a）No，the airport was there first．
（b）No，if the original property values reflect the costs imposed by the airport．
（c）No，airports are government entities and therefore don＇t impose costs on individuals．
（d）Yes，the airport＇s noise should be curtailed for the wellbeing of the homeowners．
2．At age 40，Joe is considering quitting his job and going back for a college degree．He needs two more years full－time．Tuition is $\$ 10,000$ per year．He earns $\$ 30,000$ per year．A college degree would raise his annual income by $\$ 10,000$ per year．He will retire at age 70 ．Which of the following makes it less likely that Joe will decide to go back to college full－time？
（a）The extra income due to a college degree rises．
（b）The rate of interest decreases．
（c）The government enacts mandatory retirement at age 60 ．
（d）Tuition decreases．
3．If a firm is a price taker in both the labor market and the output market，it will
（a）earn zero economic profit in the short run．
（b）hire labor until the marginal product of labor equals zero．
（c）hire labor until the marginal revenue product equals the output price．
（d）hire labor until the marginal revenue product equals the wage rate．
4．Table 1 shows the payoff matrix facing an incumbent firm and a potential entrant．


Table 1
The potential entrant cannot earn a profit if the incumbent
（a）chooses the Cournot level of output．

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（b）chooses the Stackelberg leader level of output．
（c）shuts down．
（d）deters entry．
5．Table 1 shows the payoff matrix facing an incumbent firm and a potential entrant．Assuming a fixed cost of entry，the incumbent will deter entry because
（a）it is more profitable than accommodating entry．
（b）it increases consumer surplus．
（c）the potential entrant winds up with zero profit．
（d）the incumbent would earn zero profit if it accommodated entry．
6．Table 1 shows the payoff matrix facing an incumbent firm and a potential entrant．Assuming a fixed cost of entry，the outcome will be that the incumbent
（a）deters entry．
（b）chooses the Stackelberg leader level of output but the potential entrant does not enter anyway．
（c）chooses the Stackelberg leader level of output and the potential entrant enters．
（d）deters entry and earns zero profit．
7．Table 1 shows the payoff matrix facing an incumbent firm and a potential entrant．If the fixed cost of entry were to increase，which of the following would occur？
（a）The incumbent chooses the Cournot level of output．
（b）The incumbent shuts down．
（c）The entry－deterring level of output rises．
（d）The entry－deterring level of output falls．
8．Figure 1 shows the demand and cost curves facing a monopoly．


Figure 1

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The deadweight loss of this monopoly is
（a）$\$ 100$ ．
（b）$\$ 250$ ．
（c）$\$ 1,250$ ．
（d）$\$ 2,500$ ．
9．Figure 1 shows the demand and cost curves facing a monopoly．A $\$ 100$ per unit tax would raise price by
（a）$\$ 100$ ．
（b）$\$ 50$ ．
（c）$\$ 25$ ．
（d）$\$ 0$ ．
10．Figure 1 shows the demand and cost curves facing a monopoly．If a $\$ 100$ per unit tax is charged， what is the incidence of the tax on consumers？
（a） $100 \%$
（b） $50 \%$
（c） $25 \%$
（d） $0 \%$
11．Figure 1 shows the demand and cost curves facing a monopoly．If a $\$ 100$ per unit tax is charged， the loss in welfare resulting from the tax is
（a）$\$ 250$ ．
（b）$\$ 312.50$ ．
（c）$\$ 1,250$ ．
（d）$\$ 1,562.50$ ．
12.


Figure 2

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At Jolin＇s Lawncutting Service，a lawn mower cannot cut grass without a laborer．A laborer cannot cut grass without a lawn mower．Which graph in Figure 2 best represents the isoquants for Jolin＇s Lawncutting Service when capital per day is on the vertical axis and labor per day is on the horizontal axis？
（a）Graph A
（b）Graph B
（c）Graph C
（d）Graph D
13．Lectures in microeconomics can be delivered either by an instructor（labor）or a movie（capital） or any combination of both．Each minute of the instructor＇s time delivers the same amount of information as a minute of the movie．Which graph in Figure 2 best represents the isoquants for lectures in microeconomics when capital per day is on the vertical axis and labor per day is on the horizontal axis？
（a）Graph A
（b）Graph B
（c）Graph C
（d）Graph D
14．Lectures in microeconomics can be delivered either by an instructor（labor）or a movie（capital） or any combination of both．Yet，it gets harder and harder to substitute more movies for an instructor the more movies are already used．Which graph in Figure 2 best represents the isoquants for lectures in microeconomics when capital per day is on the vertical axis and labor per day is on the horizontal axis？
（a）Graph A
（b）Graph B
（c）Graph C
（d）Graph D
15．Which graph in Figure 2 represents the isoquants where，as the amount of labor used increases and the amount of capital used decreases，the marginal product of labor rises when capital per day is on the vertical axis and labor per day is on the horizontal axis？
（a）Graph A
（b）Graph B

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（c）Graph C
（d）Graph D
16．Which of the following counts toward changes in the current GDP？
（a）You cook yourself dinner．
（b）A firm sells a product out of inventory．
（c）You buy a used car from your parents．
（d）The government builds a new highway．
17．If nominal GDP grew by 7 percent and real GDP grew by 3 percent，then the GDP deflator grew by approximately $\qquad$ percent．
（a） 3
（b） 4
（c） 7
（d） 11
18．If GDP（measured in billions of current dollars）is $\$ 5,000$ ，consumption is $\$ 3,000$ ，investment is $\$ 700$ ，and net exports are $-\$ 2,000$ ，then government purchases are：
（a）$\$ 1,700$ ．
（b）$\$ 2,000$ ．
（c）$\$ 3,300$ ．
（d）$\$ 3,700$ ．
19．If 8 million workers are unemployed， 152 million workers are employed，and the adult population equals 200 million，then the unemployment rate equals $\qquad$ percent．
（a） 4
（b） 5
（c） 6
（d） 8
20．The quantity theory of money assumes that：
（a）velocity is constant．
（b）prices are constant．
（c）the nominal income is constant．
（d）the money supply is constant．

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21．The Fisher effect assumes that：
（a）the money supply is constant．
（b）the inflation rate is constant．
（c）the nominal interest rate is constant．
（d）the real interest rate is constant．
22．If purchasing－power parity held，if a Big Mac costs $\$ 3$ in the United States，and if 12 Mexican pesos trade for $\$ 1$ dollar，then a Big Mac in Mexico should cost：
（a） 3 pesos．
（b） 4 pesos．
（c） 12 pesos．
（d） 36 pesos．
23．If the money supply increases 10 percent，velocity decreases 4 percent，and the price level increases 5 percent，then the change in real GDP must be $\qquad$ percent．
（a） 1
（b） 4
（c） 5
（d） 9
24．If currency held by the public equals $\$ 100$ billion，reserves held by banks equal $\$ 50$ billion，and bank deposits equal $\$ 500$ billion，then the monetary base equals：
（a）$\$ 50$ billion．
（b）$\$ 100$ billion．
（c）$\$ 150$ billion．
（d）$\$ 650$ billion．
25．If the currency－deposit ratio equals 0.4 and the reserve－deposit ratio equals 0.1 ，then the money multiplier equals：
（a）0．5．
（b） 1.
（c） 2 ．
（d） 2.8 ．

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26．According to the Keynesian－cross analysis，if the MPC（Marginal Propensity to Consume）is 0．8， and government expenditures and autonomous taxes are both increased by 100 ，equilibrium income will rise by：
（a） 0 ．
（b） 80 ．
（c） 100 ．
（d） 500 ．
27．If the MPC（Marginal Propensity to Consume）$=0.8$ ，then the government purchases multiplier is：
（a） 0.2 ．
（b） 0.8 ．
（c） 1 ．
（d） 5 ．
28．Assume that the money demand function is $(M / P)^{\mathrm{d}}=1,200-100 r$ ，where $r$ is the interest rate in percent．The money supply $M$ is 2,000 and the price level $P$ is 2 ．The equilibrium interest rate is $\qquad$ percent．
（a） 2 ．
（b） 4 ．
（c） 6 ．
（d） 8 ．
29．The Phillips curve in the text shows the relationship between $\qquad$ and $\qquad$ $:$
（a）inflation；unemployment
（b）the money supply；income
（c）unemployment；income
（d）interest rate；the money supply
30．The one－to－one relation between the inflation rate and the nominal interest rate is called：
（a）the Fisher effect ．
（b）the quantity theory of money．
（c）the purchasing－power parity．
（d）the theory of liquidity preference．

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## II ．Problem Solving and Essay Questions（total 40 points）

1．Suppose a person＇s utility for leisure（ L ）and consumption（ $Y$ ）can be expressed as $U=Y+L^{0.5}$ ． Assuming a wage rate of $\$ 10$ per hour，show what happens to the person＇s labor supply curve when the person wins a lottery prize of $\$ 100$ per day．

2．Suppose three neighbors must vote on the installation of a traffic light that costs $\$ 210$ ．The cost of the light will shared by all three．Voter A values the light at $\$ 50$ ；voter B values the light at $\$ 50$ ；and voter $C$（who drives the most）values the light at $\$ 200$ ．If the voting rule is that the majority wins，does the light get purchased？Is it efficient to purchase the light？
（10 points）

3．Use graphs and explain how each of the following changes interest rates and real GDP in the short run．
（1）The Fed conducts open market sales．（5 points）
（2）An increase in government spending．（5 points）
（3）An increase in taxes．（5 points）
（4）The government decides to subsidize investment by instituting an investment tax credit．（5 points）

