

科目：管理學

系所組：企業管理學系管理學碩士班甲組

共計四題申論題，請在答案卷上標註題號並依序作答，未依規定作答者不予計分

1. 奇異(General Electric Company)的前執行長 Jack Welsh 曾說「科層體制讓組織中所有員工都面向執行長(CEO)、背對客戶」，顯見科層體制在企業中產生的負面效果。(1)請說明何謂科層體制？(2)科層體制對於企業成長帶來的負面效果有哪些(可舉例說明)？(25%)
2. 企業領導人的管理風格對於企業決策有深遠的影響，從追隨者角度看待領導可分成轉換型領導(Transformational Leadership)和魅力型領導(Charismatic Leadership)二類，請分析二種領導類型的差異。(25%)
3. 創新有助於驅動企業的成長，而破壞式創新(disruptive innovation)為有效的方法之一，(1)試問何謂破壞式創新？(2)請試舉一個破壞式創新的例子並說明其如何對既有產業或產品產生破壞性。(25%)
4. 隨著 Z 世代逐漸進入工作職場，許多企業面臨員工管理的挑戰，以往常用的激勵方式不一定奏效，進而導致員工溝通管理出問題、組織績效不彰等。(1)試問 Z 世代具備哪些明顯與其他世代不一樣的特徵？(2)前述 Z 世代的特徵對於企業激勵員工方式帶來哪些啟發？(25%)

※ 注意：1.考生須在「彌封答案卷」上作答。

2.本試題紙空白部份可當稿紙使用。

3.考生於作答時可否使用計算機、法典、字典或其他資料或工具，以簡章之規定為準。

科目：經濟學

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一、選擇題 (40%)

1. Bob gives up his factory job in order to open a bait-and-tackle shop. The earnings from his factory job represent
 - a. the hourly wage paid by the shop
 - b. the marginal cost of running the shop
 - c. the average cost of running the shop
 - d. a fixed cost that can vary in the long run
 - e. an implicit cost of opening the shop
2. What is true only at the output level where price equals average total cost?
 - a. Marginal cost equals marginal revenue.
 - b. Profit is maximized.
 - c. Losses are minimized.
 - d. Profit is zero.
 - e. Cost is minimized.
3. For a perfectly competitive firm,
 - a. marginal revenue equals total revenue
 - b. total revenue always exceeds total cost
 - c. price always exceeds average total cost
 - d. marginal cost always equals average cost
 - e. the marginal revenue curve and the demand curve lie on top of each other
4. If a non-discriminating monopolist decides to lower its price to sell one more unit of its product, then
 - a. total revenue rises by an amount equal to the price
 - b. some revenue is lost to the extent that units previously sold at a higher price now sell for a lower price; however, the additional unit sold brings in new revenue
 - c. marginal revenue increases when total revenue increases
 - d. the net effect on total revenue is typically zero since the price must fall
 - e. the net effect on total revenue is typically negative since the price must fall
5. Cecilia's Cafe is a monopolistic competitor. If Cecilia's is currently producing at the output level at which her average total cost is minimized and the cafe is earning an economic profit, then, in the long run, output will
 - a. decline and average total cost will increase
 - b. decline and average total cost will decrease
 - c. remain unchanged as Cecilia's strives to minimize costs
 - d. increase and average total cost will be greater
 - e. increase and average total cost will be smaller
6. Suppose workers agreed to a contract that guaranteed a real wage increase of 3 percent per year. If the inflation rate was 7 percent over the following year, what is the required increase in the nominal wage to meet the contract requirements?
 - a. 10 percent
 - b. 3 percent
 - c. 4 percent
 - d. 7 percent
 - e. 1 percent
7. If real consumption spending increases by \$400 billion each time real disposable income rises by \$1,000 billion, the marginal propensity to consume is
 - a. 40
 - b. 4
 - c. 0.4
 - d. 0.04
 - e. 0.004

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8. Why is inflation considered a problem?
- Firms gain too much economic power.
 - It is always very high when it exists.
 - People prefer falling prices.
 - It is costly for society.
 - Individuals prefer higher prices to lower prices.
9. According to Say's Law, in the aggregate
- demand creates its own supply
 - the production of output will generate exactly enough income to purchase what has been produced
 - the economy is incapable of producing output fast enough to ensure full employment
 - full employment cannot be sustained without government action
 - consumer saving prevents the economy from reaching full employment
10. Use the table below to determine the marginal propensity to consume (MPC).

Real Disposable Income (\$Billions)	Real Consumption Spending (\$Billions)
\$ 0	\$ 100
200	280
400	460
600	640
800	820
1,000	1,000
1,200	1,180

- 0.7
 - 0.8
 - 0.9
 - 1.0
 - 1.8
11. If a good is a normal good then
- other things equal, no consumer will buy it
 - a rise in income or wealth will increase the amount of the good that consumers will purchase
 - a decline in income will increase the amount of it that consumers will purchase
 - abnormal goods are never substituted for it
 - normal consumers will always demand it
12. If an excise tax is imposed on steak,
- the government's tax revenue will decrease
 - the government's tax revenue will increase
 - the amount of steak produced and sold will increase
 - the market price of steak will decrease
 - the market price will rise but the market quantity will be unaffected

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13. Which of the following statements about straight-line demand curves is true?
a. The price elasticity of demand becomes larger in absolute value as price falls.
b. The price elasticity of demand becomes smaller in absolute value as price falls.
c. The price elasticity of demand is constant along the curve.
d. The price elasticity of demand and the slope of the demand curve are the same.
e. Demand is price elastic everywhere along the curve.
14. The ratio of the price of the good on the horizontal axis divided by the price of the good on the vertical axis multiplied by -1
a. is the slope of the demand curve
b. measures the price elasticity of demand for a particular good
c. defines real income for the consumer
d. is the slope of the budget line
e. is the slope of the indifference curve
15. 經濟學家特別重視均衡時的價量，其原因為何 A) 均衡以外之價量不可能出現 B) 均衡以外之價量違反供需法則 C) 均衡之價量難以達到 D) 均衡以外之價量無法持續存在
16. 近年來常聽到計程車司機要求調高計程車費，但亦有些司機反對，其反對之理由可能為 A) 計程車的需求彈性很小 B) 計程車的替代品很少 C) 計程車為服務性質 D) 計程車的需求彈性很大
17. 假設「辣妹檳榔攤」為完全競爭廠商，則其短期供給曲線為 A) 平均成本最低點以上的邊際成本線 B) 平均變動成本最低點以上的邊際成本線 C) 平均固定成本最低點以上的邊際成本線 D) 短期供給曲線不存在
18. 製鞋廠今年新建廠房，請問此廠房 A) 計於GDP中，視為民間消費支出 B) 不計於GDP中 C) 計於GDP中，視為公共部門投資支出 D) 計於GDP中，視為民間投資支出 E) 不計於GDP中，但視為中間投入
19. 關於凱因斯學派對於儲蓄的看法，下列何者為真： A) 儲蓄的增加有助於個人財富的累積，有助於經濟成長 B) 儲蓄的增加有助於品質和技術的提昇，有助於經濟成長 C) 儲蓄的增加，會導致總產出的減少 D) 儲蓄增加有助於資本存量的累積，會提高總產出
20. 貨幣供給透過何種管道影響總合需求？ A) 由利率變化改變投資及消費需求，進而影響總合需求 B) 由所得變化改變消費及出口，進而影響總合需求 C) 由利率變化改變儲蓄及總合供給，進而影響總合需求 D) 由利率變化改變出口及總合供給，進而影響總合需求 E) 由所得變化改變利率及貨幣需求，進而影響總合需求

二、問答題 (60%)

1. 請用無異曲線分析法畫圖說明，當兩產品為「完全互補」及「完全替代」時，消費者的最適選擇為何？ (15%)
2. 由於COVID-19疫情的影響，人們減少出門的頻率，且OPEC亦決定減產石油，試以AD-AS模型畫圖說明，經濟體系在短期及長期下會發生什麼樣的變化？ (15%)
3. 請以供需模型畫圖說明，政府提供給大學「學生」學費補貼政策，會造成什麼樣的影響。 (15%)
4. 請畫圖說明當獨佔廠商及完全競爭廠商，已經有了虧損是否還會繼續生產，為什麼？ (15%)

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Notice: Please list your computation in details on answer sheet.

1. For $f(x) = \begin{cases} 4-x, & x < 3 \\ 3, & x = 3 \\ \frac{x}{3}, & x > 3 \end{cases}$, find $\lim_{x \rightarrow 3} f(x)$. (4%)
2. Find the derivative of the following function using the **definition** of the derivative.
 $f(x) = \frac{1}{\sqrt{x}}$ (10%)
3. Find the derivative of the following function.
 $f(x) = \ln \sqrt{\frac{2x+9}{3x^2+4x-5}}$ (6%)
4. A company's demand equation is $x = \sqrt{4000 - p^2}$, where p is the price in dollars. Find $\frac{dp}{dx}$ when $p = 60$ and interpret your answer. (12%)
5. Find the equation of the tangent line to the curve $f(x) = \frac{x^2}{1 + \ln x}$ at $x = 1$. (12%)
6. Please evaluate $\int_1^3 x^2 \ln x dx$ (12%)
7. Please evaluate $\int x e^{x^2} dx$ (7%)
8. Please evaluate $\int_{-\infty}^0 \frac{x^4}{(x^5 - 1)^2} dx$ (12%)
9. When a company sells a product with a lifetime guarantee, the number of items returned for repair under the guarantee usually decreases with time. A company estimates that the annual rate of returns after t years will be $800e^{-0.1t}$. Find the total number of returns by summing (integrating) this rate from 0 to ∞ . (12%)
10. Find the radius of convergence of the power series:
 $\frac{1}{2}x + \frac{2}{4}x^2 + \frac{3}{8}x^3 + \cdots + \frac{n}{2^n}x^n + \cdots$ (13%)

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