

科目：管理學

系所組：企業管理學系管理學碩士班甲組

1. 根據生命週期理論，企業在不同的發展階段中會有不同的需求，而馬斯洛的需求層次理論強調人類需求的五個層次。
(1)、請問馬斯洛的需求層次理論包含哪五項需求以及其內涵為何？(10%)
(2)、請結合馬斯洛的需求層次理論，分析企業在不同發展階段（如初創期、成長期、成熟期）應如何設計激勵措施，以滿足員工的不同需求並提升組織績效。(15%)
2. 在數位化浪潮下，許多企業推動數位轉型以應對市場競爭與技術變革，過程中有些企業採用目標管理法進行。
(1)、試問何謂目標管理法？(10%)
(2)、請結合目標管理法的流程，分析企業在數位轉型過程中如何設定階段性目標，並確保這些目標具有可行性與可衡量性。(15%)
3. 組織變革常面臨來自員工、部門或文化的阻力，
(1)、試問組織變革過程中產生的主要阻力來源有哪些？(10%)
(2)、請以 Kurt Lewin 的變革模型為基礎，提出具體的管理策略以克服這些阻力並促進變革成功。(15%)
4. 近期全球性危機（如疫情、氣候變遷或地緣政治衝突）對組織的生存與發展帶來挑戰。面對危機時領導者的行為對組織產生很大的影響。
(1)、試問何謂情境領導理論(situational theory)？(10%)
(2)、請以情境領導理論分析領導者在應對危機時應具備的關鍵能力與決策策略，並舉例說明成功的領導行為對組織的影響。(15%)

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科目：經濟學

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一、單選題 5*10=50%

- Mary used to consume 100 units of X and 50 units of Y when the price of X was 2 and the price of Y was 4. If the price of X rose to 6 and the price of Y rose to 8, how much would Mary's income have to rise so that he could still afford his original bundle?
(A)800 (B) 600 (C)400 (D) 1200
- If there are only two goods, if more of good 1 is always preferred to less, and if less of good 2 is always preferred to more, then:
(A) IC slope downwards. (B) IC slope upwards.
(C) IC may cross. (D) IC could take the form of ellipses.
- If a price ceiling is not binding, then
(A) there will be a surplus in the market
(B) there will be a shortage in the market.
(C) there will be no effect on the market price or quantity sold.
(D) the market will be less efficient than it would be without the price ceiling.
- Mary's utility function is $U(x, y) = x + 63y - 3y^2$. Her income is 184. If the price of x is 1 and the price of y is 33, how many units of good x will Wanda demand?
(A) 17. (B)22. (C) 24. (D) 19.
- If a profit-maximizing firm in a competitive market discovers that, at its current level of production, price is greater than marginal cost, it should
(A) shut down (B) continue to produce at the current levels
(C) increase its output. (D) reduce its output but continue operating
- Unlike the GDP deflator, the CPI includes the prices of:
(A)goods purchased by firms (B)goods purchased by governments
(C)exported goods (D)imported goods
- The right of seigniorage is the right to :
(A) levy taxes on the public. (B) borrow money from the public.
(C) draft citizens into the armed forces. (D) print money.
- Efficiency-wage theories suggest that a firm may pay workers more than the market-clearing wage for all of the following reasons except to:
(A) reduce labor turnover (B) improve the quality of the firm's labor force
(C) increase worker effort (D) reduce the firm's wage bill
- Suppose the U.S. dollar appreciates against the Japanese yen by 150%. How much did the yen depreciate against the dollar?
(A) 150% (B) 100% (C)67% (D)60%

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10. If a great wave of immigration increased employment in the United States, this wave would:

- (A) increase the marginal productivity of capital in the United States.
- (B) decrease the marginal productivity of capital in the United States.
- (C) leave the marginal productivity of capital in the United States unchanged.
- (D) increase the marginal productivity of capital in the country from which the immigrants came.

二、You and Tom are assigned a project on which you will receive one combined grade. You each want to receive a good grade, but you also want to avoid hard work. In particular, here is the situation :

- If both of you work hard, you both get an A, which gives you 40 units of happiness but give Tom 80 units of happiness.
- If only one of you works hard, you both get a B, which gives you 30 units of happiness but give Tom 50 units of happiness..
- If neither of you work hard, you both get a D, which gives each of you 10 units of happiness.
- Working hard costs 25 units of happiness.

What is likely outcome? Explain your answer. (20%)

三、請問何謂貨幣政策？何謂財政政策？若要提升國家所得、降低失業，政府應該採取甚麼政策？

這些政策在促進經濟成長之餘，有甚麼副作用嗎？ 10%

如果你是中國執政當局，針對近況，你會建議採取甚麼政策？為什麼？ 10%

如果你是日本執政當局，針對近況，你會建議採取甚麼政策？為什麼？ 10%

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1. The Flying BA is a marathon (26.2 mile long) running race held every year in FJU, Xinzhuang. Suppose that the following data show the ages for a sample of 25 marathon runners.

49 33 40 37 56 44 46 57 55 32 50 52 43
64 40 46 24 30 37 43 31 43 50 36 61

- (a) Using a class width of 10 (20~29, 30~39...), construct a frequency histogram for the ages of 25 marathon runners. (10%)
- (b) Develop a stem-and-leaf display for the ages of 25 marathon runners. (leaf unit=1) (5%)
2. FJUBA is an organization that tests outdoor gear used for climbing, camping, mountaineering, and backpacking. Suppose that the following data show the ratings of hardshell jackets based on the breathability, durability, versatility, features, mobility, and weight of each jacket. The ratings range from 0 (lowest) to 100 (highest).
- 42 66 67 71 78 62 61 76 71 67 61 64 61 54 62
83 63 68 69 81 53 96 32 62 77 62 68 67 67 63
- (a) Compute the mean, median, and mode. (5%)
- (b) Compute and interpret the 80th percentile. (5%)
3. The 10.1" iPads will have faster processors and a cheaper price point in an effort to take market share away from Google Chromebooks in public school districts. Suppose that the following data represent the percentages of students currently using Apple iPads for a sample of 20 U.S. public school districts.
- 7 22 12 21 26 18 42 29 64 20
16 23 18 24 27 24 26 19 34 29
- (a) Compute the first and third quartiles and I.Q.R. (9%)
- (b) Using "lower and upper limit" to determine the outliers if any. (6%)
4. According to *Franchise Business Review*, over 50% of all food franchises earn a profit of less than \$50,000 a year. In a sample of 187 casual dining restaurants, 96 earned a profit of less than \$50,000 last year.
- (a) Provide a 95% confidence interval for the proportion of casual dining restaurants that earned a profit of less than \$50,000 last year. (5%)
- (b) How large a sample is needed if the desired margin of error is 0.03? (5%)

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5. BCC and BAMedia provided a television channel targeted to individuals waiting in supermarket checkout lines. The channel showed news, short features, and advertisements. The length of the program was based on the assumption that the population mean time a shopper stands in a supermarket checkout line is 10 minutes. A sample of actual waiting times will be used to test this assumption and determine whether actual mean waiting time differs from this standard.

(a) Formulate the hypotheses for this application. (5%)

(b) A sample of 64 shoppers showed a sample mean waiting time of 9 minutes.

Assume a population standard deviation of $\sigma = 3.2$ minutes.

What is the value of the test statistic. (5%)

(c) What is the p-value? At $\alpha = 0.05$, what is your conclusion? (5%)

6. Consider the following hypothesis test.

$$\begin{cases} H_0: \mu_1 - \mu_2 = 0 \\ H_1: \mu_1 - \mu_2 \neq 0 \end{cases}$$

The following data for two independent random samples taken from two normal populations.

Sample 1	10	7	13	7	9	8
Sample 2	8	7	8	4	6	9

(a) What is the value of the test statistic? (5%)

(b) What is the degrees of freedom for the distribution? (5%)

(c) What is the p-value? And what is your conclusion? (5%)

7. A personal fitness company produces both a deluxe and a standard model of a smoothie blender for home use. Selling prices obtained from a sample of retail outlets follow.

(let μ_{DX} : mean price of **Deluxe**, μ_{STD} : mean price of **Standard**)

Retail Outlet	1	2	3	4	5	6	7
Deluxe	40	48	44	46	43	46	42
Standard	31	28	31	29	29	34	29

The manufacturer's suggested retail prices for the two models show a \$10 price differential.

Use a 0.05 level of significance and test that the mean difference between the prices of the two models is \$10.

(a) Formulate the null and alternative hypotheses for this question. (5%)

(b) What is the value of the test statistic. (7%)

(c) What is the rejection rule using the critical value? and your conclusion? (8%)

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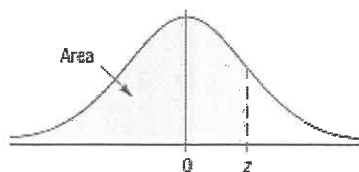
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Table E (continued)

Cumulative Standard Normal Distribution

z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
0.0	.5000	.5040	.5080	.5120	.5160	.5199	.5239	.5279	.5319	.5359
0.1	.5398	.5438	.5478	.5517	.5557	.5596	.5636	.5675	.5714	.5753
0.2	.5793	.5832	.5871	.5910	.5948	.5987	.6026	.6064	.6103	.6141
0.3	.6179	.6217	.6255	.6293	.6331	.6368	.6406	.6443	.6480	.6517
0.4	.6554	.6591	.6628	.6664	.6700	.6736	.6772	.6808	.6844	.6879
0.5	.6915	.6950	.6985	.7019	.7054	.7088	.7123	.7157	.7190	.7224
0.6	.7257	.7291	.7324	.7357	.7389	.7422	.7454	.7486	.7517	.7549
0.7	.7580	.7611	.7642	.7673	.7704	.7734	.7764	.7794	.7823	.7852
0.8	.7881	.7910	.7939	.7967	.7995	.8023	.8051	.8078	.8106	.8133
0.9	.8159	.8186	.8212	.8238	.8264	.8289	.8315	.8340	.8365	.8389
1.0	.8413	.8438	.8461	.8485	.8508	.8531	.8554	.8577	.8599	.8621
1.1	.8643	.8665	.8686	.8708	.8729	.8749	.8770	.8790	.8810	.8830
1.2	.8849	.8869	.8888	.8907	.8925	.8944	.8962	.8980	.8997	.9015
1.3	.9032	.9049	.9066	.9082	.9099	.9115	.9131	.9147	.9162	.9177
1.4	.9192	.9207	.9222	.9236	.9251	.9265	.9279	.9292	.9306	.9319
1.5	.9332	.9345	.9357	.9370	.9382	.9394	.9406	.9418	.9429	.9441
1.6	.9452	.9463	.9474	.9484	.9495	.9505	.9515	.9525	.9535	.9545
1.7	.9554	.9564	.9573	.9582	.9591	.9599	.9608	.9616	.9625	.9633
1.8	.9641	.9649	.9656	.9664	.9671	.9678	.9686	.9693	.9699	.9706
1.9	.9713	.9719	.9726	.9732	.9738	.9744	.9750	.9756	.9761	.9767
2.0	.9772	.9778	.9783	.9788	.9793	.9798	.9803	.9808	.9812	.9817
2.1	.9821	.9826	.9830	.9834	.9838	.9842	.9846	.9850	.9854	.9857
2.2	.9861	.9864	.9868	.9871	.9875	.9878	.9881	.9884	.9887	.9890
2.3	.9893	.9896	.9898	.9901	.9904	.9906	.9909	.9911	.9913	.9916
2.4	.9918	.9920	.9922	.9925	.9927	.9929	.9931	.9932	.9934	.9936
2.5	.9938	.9940	.9941	.9943	.9945	.9946	.9948	.9949	.9951	.9952
2.6	.9953	.9955	.9956	.9957	.9959	.9960	.9961	.9962	.9963	.9964
2.7	.9965	.9966	.9967	.9968	.9969	.9970	.9971	.9972	.9973	.9974
2.8	.9974	.9975	.9976	.9977	.9977	.9978	.9979	.9979	.9980	.9981
2.9	.9981	.9982	.9982	.9983	.9984	.9984	.9985	.9985	.9986	.9986
3.0	.9987	.9987	.9987	.9988	.9988	.9989	.9989	.9989	.9990	.9990
3.1	.9990	.9991	.9991	.9991	.9992	.9992	.9992	.9992	.9993	.9993
3.2	.9993	.9993	.9994	.9994	.9994	.9994	.9994	.9995	.9995	.9995
3.3	.9995	.9995	.9995	.9996	.9996	.9996	.9996	.9996	.9996	.9997
3.4	.9997	.9997	.9997	.9997	.9997	.9997	.9997	.9997	.9997	.9998

For z values greater than 3.49, use 0.9999.



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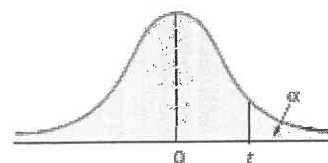
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TABLE E.3
Critical Values of t

For a particular number of degrees of freedom, entry represents the critical value of t corresponding to the cumulative probability $(1 - \alpha)$ and a specified upper-tail area (α).



Degrees of Freedom	Cumulative Probabilities					
	0.75	0.90	0.95	0.975	0.99	0.995
	Upper-Tail Areas					
	0.25	0.10	0.05	0.025	0.01	0.005
1	1.0000	3.0777	6.3138	12.7062	31.8207	63.6574
2	0.8165	1.8856	2.9200	4.3027	6.9646	9.9248
3	0.7649	1.6377	2.3534	3.1824	4.5407	5.8409
4	0.7407	1.5332	2.1318	2.7764	3.7469	4.6041
5	0.7267	1.4759	2.0150	2.5706	3.3649	4.0322
6	0.7176	1.4398	1.9432	2.4469	3.1427	3.7074
7	0.7111	1.4149	1.8946	2.3646	2.9980	3.4995
8	0.7064	1.3968	1.8595	2.3060	2.8965	3.3554
9	0.7027	1.3830	1.8331	2.2622	2.8214	3.2498
10	0.6998	1.3722	1.8125	2.2281	2.7638	3.1693
11	0.6974	1.3634	1.7959	2.2010	2.7181	3.1058
12	0.6955	1.3562	1.7823	2.1788	2.6810	3.0545
13	0.6938	1.3502	1.7709	2.1604	2.6503	3.0123
14	0.6924	1.3450	1.7613	2.1448	2.6245	2.9768
15	0.6912	1.3406	1.7531	2.1315	2.6025	2.9467
16	0.6901	1.3368	1.7459	2.1199	2.5835	2.9208
17	0.6892	1.3334	1.7396	2.1098	2.5669	2.8982
18	0.6884	1.3304	1.7341	2.1009	2.5524	2.8784
19	0.6876	1.3277	1.7291	2.0930	2.5395	2.8609
20	0.6870	1.3253	1.7247	2.0860	2.5280	2.8453
21	0.6864	1.3232	1.7207	2.0796	2.5177	2.8314
22	0.6858	1.3212	1.7171	2.0739	2.5083	2.8188
23	0.6853	1.3195	1.7139	2.0687	2.4999	2.8073
24	0.6848	1.3178	1.7109	2.0639	2.4922	2.7969
25	0.6844	1.3163	1.7081	2.0595	2.4851	2.7874
26	0.6840	1.3150	1.7056	2.0555	2.4786	2.7787
27	0.6837	1.3137	1.7033	2.0518	2.4727	2.7707
28	0.6834	1.3125	1.7011	2.0484	2.4671	2.7633
29	0.6830	1.3114	1.6991	2.0452	2.4620	2.7564
30	0.6828	1.3104	1.6973	2.0423	2.4573	2.7500
31	0.6825	1.3095	1.6955	2.0395	2.4528	2.7440
32	0.6822	1.3086	1.6939	2.0369	2.4487	2.7385
33	0.6820	1.3077	1.6924	2.0345	2.4448	2.7333
34	0.6818	1.3070	1.6909	2.0322	2.4411	2.7284
35	0.6816	1.3062	1.6896	2.0301	2.4377	2.7238
36	0.6814	1.3055	1.6883	2.0281	2.4345	2.7195
37	0.6812	1.3049	1.6871	2.0262	2.4314	2.7154
38	0.6810	1.3042	1.6860	2.0244	2.4286	2.7116
39	0.6808	1.3036	1.6849	2.0227	2.4258	2.7079
40	0.6807	1.3031	1.6839	2.0211	2.4233	2.7045
41	0.6805	1.3025	1.6829	2.0195	2.4208	2.7012
42	0.6804	1.3020	1.6820	2.0181	2.4185	2.6981
43	0.6802	1.3016	1.6811	2.0167	2.4163	2.6951
44	0.6801	1.3011	1.6802	2.0154	2.4141	2.6923
45	0.6800	1.3006	1.6794	2.0141	2.4121	2.6896
46	0.6799	1.3002	1.6787	2.0129	2.4102	2.6870
47	0.6797	1.2998	1.6779	2.0117	2.4083	2.6846
48	0.6796	1.2994	1.6772	2.0106	2.4066	2.6822

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