

國立高雄大學九十六學年度研究所碩士班招生考試試題

科目：統計學
考試時間：100 分鐘

系所：亞太工商管理學系甲組
亞太工商管理學系乙組 是否使用計算機：是
本科原始成績：100 分

※ 注意：第 3 頁附有 Cumulative standard normal distribution 及 Poisson probabilities 的機率表。

1. Given two discrete random variables, X and Y, the joint probability of (X, Y) are shown below.

Let $Z = 5X - 2$ and $W = 3Y + 5$.

- (A) Find $E(Y|X = 40) = ?$ (5%)
(B) Find $V(4X - 3Y) = ?$ (5%)
(C) Find the coefficient of correlation $\rho_{(z,w)} = ?$ (5%)

Y	30	60	90
X			
20	0.1	0.1	0.2
40	0.2	0.3	0.1

2. Samples of size 49 are drawn from a Uniform distribution with $X \sim U(30, 70)$.

- (A) What is the probability that X is between 45 and 80? (5%)
(B) What is the probability that the sample average (\bar{X}) will be greater than 48? (5%)

3. Number of customers arriving at the drive-through window of a fast food restaurant follows a Poisson distribution. Past record indicates that an average of 15 customers arrives at the window per hour:

- (A) What is the probability that more than three customers will arrive at the window during a ten-minute period? (5%)
(B) What is the maximum number of customers that will arrive during a twenty-minute period 90% of the time? (5%)

4. To test a hypothesis $\begin{cases} H_0 : \mu_1 = \mu_2 \\ H_a : \mu_1 \neq \mu_2 \end{cases}$ for two independent populations, you collect samples of

$n_1=40$ and $n_2=50$. The sample averages and the sample standard deviations are computed as:
 $\bar{x}_1 = 120$, $s_1 = 12$, $\bar{x}_2 = 124$ and $s_2 = 15$.

- (A) What is the p-Value for this test? (7%)
(B) Use the level of significance $\alpha=0.10$. If the true $(\mu_1 - \mu_2)$ is -3, what is the power-of-test? (8%)

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5. 試利用下述 (X_i, Y_i) 的資料，計算下列三小題

- (A) 試求 X 與 Y 的樣本相關係數? (10%)
 (B) 試求 $Y = \alpha_0 + \alpha_1 X$ 之迴歸方程式為何? (10%)
 (C) 試寫出檢定 β_0 是否為 0 之檢定統計量值=? (10%)

X_i	Y_i	$X_i - \bar{X}$	$Y_i - \bar{Y}$	$(X_i - \bar{X})^2$	$(Y_i - \bar{Y})^2$	$(X_i - \bar{X})(Y_i - \bar{Y})$
21	436	-4.5	-42.5	20.25	1806.25	191.25
22	445	-3.5	-33.5	12.25	1122.25	117.25
23	452	-2.5	-26.5	6.25	702.25	66.25
24	467	-1.5	-11.5	2.25	132.25	17.25
25	478	-0.5	-0.5	0.25	0.25	0.25
26	482	0.5	3.5	0.25	12.25	1.75
27	496	1.5	17.5	2.25	306.25	26.25
28	510	2.5	31.5	6.25	992.25	78.75
29	499	3.5	20.5	12.25	420.25	71.75
30	520	4.5	41.5	20.25	1722.25	186.75
$\Sigma=255$	$\Sigma=4785$	$\Sigma=0$	$\Sigma=0$	$\Sigma=82.5$	$\Sigma=7216.5$	$\Sigma=757.5$

6. 某大學實施校內停車收費制度，學生代聯會在校內進行問卷調查，資料經收集後，依各學院對校內停車收費認同程度之統計資料如下表：

試以顯著水準 $\alpha=0.05$ ，檢定各學院之間對收費認同程度是否有差異? (10%)

學院 \ 認同度	贊成	反對	沒意見
文學院	36	23	9
理學院	42	19	12
工學院	49	18	10
管理學院	63	11	8
法學院	21	29	5

[$\chi^2_{0.05}(8) = 15.50$ $\chi^2_{0.05}(10) = 18.31$ $\chi^2_{0.05}(12) = 21.06$ $\chi^2_{0.05}(15) = 24.99$]

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7. 某兩因子重覆實驗的樣本資料如下：

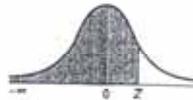
A 因素 \ B 因素		B 因素		
		B ₁	B ₂	B ₃
A ₁		34	32	38
		35	31	39
A ₂		37	34	41
		38	37	42
A ₃		34	35	43
		39	35	45

已知 SST=250.5、SSA=49.33333、SSB=170.3333、SSE=21.5

試以顯著水準 $\alpha=0.05$ ，檢定 A 因素與 B 因素之交互作用是否顯著？(10%)

[$F_{0.05}(4, 9) = 3.63$ $F_{0.05}(6, 12) = 2.996$ $F_{0.05}(4, 12) = 3.26$ $F_{0.05}(6, 18) = 2.661$]

The Cumulative Standardized Normal Distribution
 Entry represents area under the cumulative standardized normal distribution from $-\infty$ to Z.



Z	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	0.5000	0.5040	0.5080	0.5120	0.5160	0.5199	0.5239	0.5279	0.5319	0.5359
0.1	0.5398	0.5438	0.5478	0.5517	0.5557	0.5596	0.5636	0.5675	0.5714	0.5753
0.2	0.5793	0.5832	0.5871	0.5910	0.5948	0.5987	0.6026	0.6064	0.6103	0.6141
0.3	0.6179	0.6217	0.6255	0.6293	0.6331	0.6368	0.6406	0.6443	0.6480	0.6517
0.4	0.6554	0.6591	0.6628	0.6664	0.6700	0.6736	0.6772	0.6808	0.6844	0.6879
0.5	0.6915	0.6950	0.6985	0.7019	0.7054	0.7088	0.7123	0.7157	0.7190	0.7224
0.6	0.7257	0.7291	0.7324	0.7357	0.7389	0.7422	0.7454	0.7486	0.7518	0.7549
0.7	0.7580	0.7612	0.7642	0.7673	0.7704	0.7734	0.7764	0.7794	0.7823	0.7852
0.8	0.7881	0.7910	0.7939	0.7967	0.7995	0.8023	0.8051	0.8078	0.8106	0.8133
0.9	0.8159	0.8186	0.8212	0.8238	0.8264	0.8289	0.8315	0.8340	0.8365	0.8389
1.0	0.8413	0.8438	0.8461	0.8485	0.8508	0.8531	0.8554	0.8577	0.8599	0.8621
1.1	0.8643	0.8665	0.8686	0.8708	0.8729	0.8749	0.8770	0.8790	0.8810	0.8830
1.2	0.8849	0.8869	0.8888	0.8907	0.8925	0.8944	0.8962	0.8980	0.8997	0.9015
1.3	0.9032	0.9049	0.9066	0.9082	0.9099	0.9115	0.9131	0.9147	0.9162	0.9177
1.4	0.9192	0.9207	0.9222	0.9236	0.9251	0.9265	0.9279	0.9292	0.9306	0.9319
1.5	0.9332	0.9345	0.9357	0.9370	0.9382	0.9394	0.9406	0.9418	0.9429	0.9441
1.6	0.9452	0.9463	0.9474	0.9484	0.9495	0.9505	0.9515	0.9525	0.9535	0.9545
1.7	0.9554	0.9564	0.9573	0.9582	0.9591	0.9599	0.9608	0.9616	0.9625	0.9633
1.8	0.9641	0.9649	0.9656	0.9664	0.9671	0.9678	0.9686	0.9693	0.9699	0.9706
1.9	0.9713	0.9719	0.9726	0.9732	0.9738	0.9744	0.9750	0.9756	0.9761	0.9767
2.0	0.9772	0.9778	0.9783	0.9788	0.9793	0.9798	0.9803	0.9808	0.9812	0.9817
2.1	0.9821	0.9826	0.9830	0.9834	0.9838	0.9842	0.9846	0.9850	0.9854	0.9857
2.2	0.9861	0.9864	0.9868	0.9871	0.9875	0.9878	0.9881	0.9884	0.9887	0.9890
2.3	0.9893	0.9896	0.9898	0.9901	0.9904	0.9906	0.9909	0.9911	0.9913	0.9916
2.4	0.9918	0.9920	0.9922	0.9925	0.9927	0.9929	0.9931	0.9932	0.9934	0.9936
2.5	0.9938	0.9940	0.9941	0.9943	0.9945	0.9946	0.9948	0.9949	0.9951	0.9952
2.6	0.9953	0.9955	0.9956	0.9957	0.9959	0.9960	0.9961	0.9962	0.9963	0.9964
2.7	0.9965	0.9966	0.9967	0.9968	0.9969	0.9970	0.9971	0.9972	0.9973	0.9974
2.8	0.9974	0.9975	0.9976	0.9977	0.9977	0.9978	0.9979	0.9979	0.9980	0.9981
2.9	0.9981	0.9982	0.9982	0.9983	0.9984	0.9984	0.9985	0.9985	0.9986	0.9986
3.0	0.9986	0.9986	0.9987	0.9987	0.9988	0.9988	0.9988	0.9989	0.9989	0.9990
3.1	0.9990	0.9990	0.9991	0.9991	0.9991	0.9991	0.9992	0.9992	0.9992	0.9992
3.2	0.9993	0.9993	0.9993	0.9993	0.9994	0.9994	0.9994	0.9994	0.9994	0.9995
3.3	0.9995	0.9995	0.9995	0.9995	0.9995	0.9996	0.9996	0.9996	0.9996	0.9996
3.4	0.9996	0.9996	0.9996	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997
3.5	0.9997	0.9997	0.9997	0.9997	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998
3.6	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998
3.7	0.9998	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999
3.8	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999
3.9	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999

Poisson probabilities

Entry is probability $P(x) = \frac{\lambda^x \exp(-\lambda)}{x!}$

x	λ			
	2.5	3.0	5.0	15
0	0.0821	0.0498	0.0067	
1	0.2052	0.1494	0.0337	
2	0.2565	0.2240	0.0842	
3	0.2138	0.2240	0.1404	0.0002
4	0.1336	0.1680	0.1755	0.0006
5	0.0668	0.1008	0.1755	0.0019
6	0.0278	0.0504	0.1462	0.0048
7	0.0099	0.0216	0.1044	0.0104
8	0.0031	0.0081	0.0653	0.0194
9	0.0009	0.0027	0.0363	0.0324
10	0.0002	0.0008	0.0181	0.0486
11		0.0002	0.0082	0.0663
12		0.0001	0.0034	0.0829
13			0.0013	0.0956
14			0.0005	0.1024
15			0.0002	0.1024
16				0.0960
17				0.0847
18				0.0706
19				0.0557
20				0.0418
21				0.0299
22				0.0204
23				0.0133
24				0.0083
25				0.0050
26				0.0029
27				0.0016
28				0.0009
29				0.0004
30				0.0002
31				0.0001
32				0.0001
33				
34				
35				
36				
37				
38				
39				

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是否使用計算機：是

請依題號順序，於「作答區」作答

1. 何為「Radio frequency identification technology」(RFID)? 並舉一產業為例，說明 RFID 應用於該產業可帶來哪些效益(至少五項效益，且每項都須述明理由)。(15 分)
2. 亞太公司才成立 5 個月，其某一最終產品(end item)P 在過去 5 個月的實際需求如表一所示，如果其管理顧問建議該公司以 2 期之加權移動平均法(weighted moving average)來預測 P 之需求，也就是

$$F_t = wA_{t-2} + (1-w)A_{t-1}, \text{ for } t=3, 4, 5, \dots$$

其中 A_t 與 F_t 分別為第 t 期(月)之實際需求與需求預測值；而 w 為加權值。且如果以平方誤差和(sum of squared error; SSE 定義如下)來衡量預測準確性(forecast accuracy)。

$$SSE = \sum_{t=3}^5 (A_t - F_t)^2$$

試根據這 5 個月的資料求加權值 w ，以達成最佳的預測準確性。(15 分) 註：因為是以 2 期之加權移動平均法來預測，故在計算 SSE 時，前二期的需求預測不予考慮。

表一：P 在過去 5 個月的實際需求

月份(t)	實際需求(A_t)
1	42
2	40
3	43
4	40
5	41

3. APIBM 公司採用訂購點模式(reorder point)以管制其某一外購之物料項目 A，根據過去資料顯示項目 A 之每日需求量符合均數為 5 單位之 exponential distribution，且其訂購之前置時間(lead time)為 1 天。如果管理階層想要達成每一訂購週期(order cycle)80%的服務水準(service level)。
 - (a) 試求其訂購點(reorder point; ROP)。(10 分)
 - (b) 並求其每一訂購週期之期望缺貨量(expected number of units short per order cycle)。(10 分)

本題可參考數據： $\ln(2)=0.69315$ ； $\ln(5)=1.60944$ ； $\ln(8)=2.07944$ ； $\ln(9)=2.19722$ ； $\ln(10)=2.30259$ 。

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是否使用計算機：是

4. **MR. Right** 是一家甜甜圈專賣量販店，據估計甜甜圈的成本含人工、材料、以及間接成本 (overhead cost)，每一打 (dozen) 為 \$k；當天出爐的甜甜圈 (稱之「新鮮甜甜圈」) 每打售價 \$240；然而如果當天出爐而未賣完的甜甜圈 (稱之「隔夜甜甜圈」)，則隔天以每打 \$144 出售，且都可以全部售罄。假設該店「新鮮甜甜圈」的每天需求量 (D) 符合均數 100 打的 Poisson distribution，且已知每天的最佳服務水準 (optimal service level) 為 80%。試求
- 每一打甜甜圈的成本 k。(5 分)
 - 每天甜甜圈的最佳出爐數量 (optimal stocking level)，以打為單位。(5 分)
 - 每天「新鮮甜甜圈」實際售出之期望數量，以打為單位。(5 分)
 - 每天的期望利潤。註：須同時考慮來自於「新鮮甜甜圈」與「隔夜甜甜圈」的收益 (revenue)、以及成本。(5 分)

本題附表

x	105	106	107	108	109	110
$\sum_{d=0}^x \frac{(100)^d e^{-100}}{d!}$	0.71281	0.74526	0.77559	0.80368	0.82944	0.85286

5. 某一機器 M 已完成工件 "0" 之加工，此時另有三件工件 "1"、"2"、"3" 同時到達 M 準備加工，所需加工時間如表二所示；由於這些工件的生產條件彼此間存在某些差異，因此在 M 所需的換線時間 (changeover time) 也有不同，如表三所示，例如：M 完成工件 "0" 之加工，如果接著處理工件 "1" 之加工，則所需的換線時間為 4 小時，其餘依此類推。

表二：加工時間 (單位：小時)

工件	加工時間
1	110
2	90
3	120

表三：換線時間 (單位：小時)

當時工件 (the current)	次一工件 (the next)		
	1	2	3
0	4	6	5
1	×	8	6
2	7	×	5
3	5	8	×

- 試決定工件 "1"、"2"、"3" 在 M 之加工順序，以使其製造期間 (makespan) 為最短，並求其製造期間。(10 分)
- 如果在 M 已完成工件 "0" 之加工，此時待加工工件不只三件，而是 n 件 (稱之工件 "1"、"2"、...、"n")，且 p_i 表示工件 "i" 在 M 所需加工時間； c_{ij} 表示 M 完成工件 "i" 加工，如果接著處理工件 "j" 之加工，所需的換線時間。寫出數學規劃模式，以決定此 n 件工件之加工順序，使其製造期間 (makespan) 為最短。註：須說明決策變數 (decision variable)、目標函數 (objective function)、以及限制式 (constraint) 之意義；惟，目標函數、或限制式可以為非線性 (nonlinear)。(10 分)。

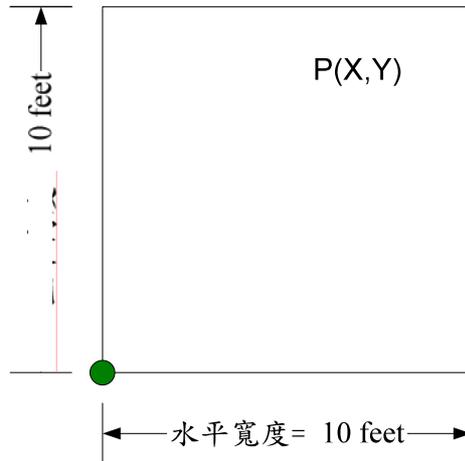
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6. 在一迷你型自動倉儲系統之某一通道(aisle)，其倉儲料架如圖一所示，該通道有一專屬存取機(dedicated storage/retrieval machine)執行該通道貨品之存取，存取機可以同時水平(horizontal)及上下(vertical)移動，其水平移動速率及上下移動速率均為每分鐘 10 feet。



圖一：倉儲料架

一般而言，專屬存取機每一趟(trip)，由圖一左下角實心圓點處(稱之為「O」，其座標為(0, 0))出發，到一隨機點 P(其座標為(X, Y))，執行一次存或取(pick/deposit)的動作，之後回到 O 處，再執行一次存或取的動作。簡言之，專屬存取機每趟的動作，可依序由下列四個步驟來描述：

- 步驟 1：去程：存取機由 O 處移動到 P 處
- 步驟 2：存取機在 P 處執行一次存或取(pick/deposit)的動作
- 步驟 3：回程：存取機由 P 處移回到 O 處
- 步驟 4：存取機在 O 處執行一次存或取(pick/deposit)的動作

其中，步驟 1 所需時間與步驟 3 所需時間之和，稱為該趟存取機之旅行時間(travel time)。假設，P 之位置均勻分佈在此倉儲料架，亦即，如果 P 之水平座標與上下座標分別為 X 與 Y，則 X 是介於(0, 10)連續均等分配(continuous uniform distribution)之隨機變數，Y 也是介於(0, 10) 連續均等分配之隨機變數；但是，X 與 Y 互相獨立。

- (a) 試求每趟存取機旅行時間之期望值。(5 分)
- (b) 試求每趟存取機旅行時間之變異數。(5 分)。

國立高雄大學九十六學年度研究所碩士班招生考試試題

科目：管理學
考試時間：100 分鐘

系所：亞太工商管理學系乙組
本科原始成績：100 分

是否使用計算機：否

【請注意：請依每一部份及題號順序，在答案紙上作答】

第一部份：選擇題（每題 1 分，共 26 分）

1. To build human capital in organizations, managers should rely upon staffing programs that focus on:
 - A. identifying cheap sources of qualified labor.
 - B. identifying and hiring the best and brightest talent available.
 - C. identifying college graduates with the requisite skills.
 - D. identifying individuals with highly specialized skills.
2. Job enrichment is touted as helping employees with:
 - A. self-esteem and job satisfaction
 - B. dissatisfaction with pay
 - C. employment security
 - D. dissatisfaction with benefits
3. If 50 applicants came from a recruiting source, 24 were deemed qualified, and 14 were invited for interviews, the yield ratio for that source would be:
 - A. 14 %
 - B. 24%
 - C. 28%
 - D. 7%
4. The appraisal system based on the concept that learning helps organizations improve their internal processes and allows individuals to see how their performance ties in with the firm is:
 - A. balanced scorecard approach
 - B. 360-degree
 - C. customer-oriented approach
 - D. management by objectives
5. Total-quality management concerns have led to the increased use of:
 - A. peer and self performance appraisals.
 - B. team and customer performance appraisals.
 - C. team and peer performance appraisals.
 - D. customer and self performance appraisals.
6. A popular and prevalent method used in many different industries for motivating and compensating hourly, salaried, and executive personnel is:
 - A. Rucker Plan
 - B. Stock options
 - C. Scanlon Plan
 - D. perquisites
7. Profit sharing refers to any procedure by which an employer pays employees:
 - A. an incentive based on their merit.
 - B. an incentive based on labor cost savings.
 - C. a bonus based on the overall productivity of their particular work group.
 - D. current or deferred sums based on the organization's financial performance.

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8. One of the latest approaches for improving job designs and performance is based on the concept of _____, which is the analysis, streamlining, and reconfiguration of actions and tasks required to reach a work goal.
- A. Electronic offices.
 - B. Work-flow processing.
 - C. Just-in-time.
 - D. Process reengineering.
 - E. Total quality management.
9. In House's leadership theory, _____ refers to how a leader influences subordinates' perceptions of both work goals and personal goals and the links found between these two sets of goals.
- A. Goal-linkage.
 - B. Goal-congruence.
 - C. Path-congruence.
 - D. Path-goal.
 - E. Linking-pin.
10. Fiedler argues that high LPC leaders have a _____ style, whereas low LPC leaders have a _____ style.
- A. Consideration ... initiating structure.
 - B. Employee-centered ... production-centered.
 - C. Task-oriented ... human-relations oriented.
 - D. Relationship-motivated ... task-motivated.
 - E. Consideration ... mechanistic.
11. The tendency for individuals to expend less effort when working collectively than when working individually is known as:
- A. group norming.
 - B. social facilitation.
 - C. group affiliation.
 - D. social loafing.
12. The three-step description of the change process was developed by:
- A. Lewin.
 - B. Herzberg.
 - C. House.
 - D. McClelland.
13. Organizations have built-in mechanisms to produce stability called:
- A. group inertia.
 - B. structural inertia.
 - C. organizational charts.
 - D. power structures.
14. Research on the Big Five Model found that _____ was important in predicting training proficiency.
- A. agreeableness
 - B. emotional stability
 - C. openness to experience
 - D. extroversion
15. Which of the following is NOT an assumption under Theory X?

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- A. Employees must be coerced to achieve desired goals.
 - B. Employees inherently dislike work and, whenever possible, will attempt to avoid it.
 - C. Employees will avoid responsibilities and seek formal direction whenever possible.
 - D. The average person can learn to accept, and even seek, responsibility
16. Reinforcement theory views behavior as:
- A. a cognitive process.
 - B. environmentally caused.
 - C. the inner state of the individual.
 - D. a function of one's need for power.
17. _____ refers to the fact that individuals tend to attribute their own successes to internal factors such as ability or effort while putting the blame for failure on external factors such as luck.
- A. Self-serving bias
 - B. Assumed similarity
 - C. Fundamental attribution error
 - D. The halo effect
18. Because there are so many gas stations and highways in the U.S., the _____ is likely to be larger and continue to grow.
- A. competitive means of transportation
 - B. installed base of automobiles
 - C. government
 - D. repetitive motions
19. Julie is somewhat skeptical about new innovations and is likely only to adopt something new after **getting** some pressure from her peers. However, she is not so risk averse that she will wait until all uncertainty of a new technology has been resolved; she's willing to accept a little uncertainty if her peers already use the product. Julie is most likely a(n)
- A. early adopter.
 - B. early majority person.
 - C. late majority person.
 - D. laggard
20. Absorptive capacity refers to the ability of a firm to
- A. assimilate and use new knowledge.
 - B. merge with other companies.
 - C. tolerate new and often strange ideas.
 - D. embrace diversity and therefore fresh ideas among its employees.
21. Which of the following is the correct sequence of steps for the science-push approach to research and development?
- A. customers express an unmet need, R&D develops the product to meet that need, the product is produced, marketing promotes the product
 - B. scientific discovery leads to an invention, engineering designs the product, it is manufactured and then marketing promotes it
 - C. marketing does research to discover a need, R&D comes up with the product concept which is refined by engineering. Manufacturing produces it and marketing sells it

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D. manufacturing sees a way to improve a product, R&D takes the suggestions and expands on it, engineering redesigns it, manufacturing implements the change, marketing sells it

22.The Bayh-Dole Act of 1980

- A. made the transfer of technology to enemies of America illegal.
- B. allowed universities to collect royalties on inventions funded with taxpayer dollars.
- C. prevented universities from collecting royalties on inventions funded with taxpayer dollars.
- D. all of the above.

23.Sources for successful innovations include(s)

- A. in-house research and development.
- B. customers.
- C. external networks of firms.
- D. all of the above

24.If you enter the market too early, the risk is that

- A. the technology (or complements) will be underdeveloped.
- B. legal problems will surface that much sooner.
- C. you will have large cash flow initially but it will taper off.
- D. all of the above.

25.Which of the following is NOT true regarding outsourcing?

- A. it involves significant transaction costs
- B. it is a way to meet market demand without a long-term commitment
- C. it is a great way for a company to develop needed manufacturing capabilities
- D. there is some risk of the contract manufacturer exposing the technology to other customers

26.MacDonald's golden arches could receive legal protection by means of a

- A. patent.
- B. trademark.
- C. copyright.
- D. utility patent.

第二部分：簡答題：請解釋並以實例說明以下專有名詞（每題 8 分，共 24 分。每題字數不得超過 200 字，違者扣分）

1. Brand equity
2. Marketing concept
3. Competitive advantage

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第三部分：申論題 (每題 25 分，共 50 分)

- 4、在松谷明彥所著的「人口減少經濟時代」中提到不論那個年代的執政者都喜歡投資大規模自動化設備以擴大經濟規模，企圖透過降低薪資成本來確保企業獲利，然而這些措施都沒有成功。他主張當勞動力減少時應該隨之縮小企業規模，營運目標應該改為提高附加價值率，而非僅是提高營業額。現實世界中最鮮明的例子，就屬土地面積少、人口少的芬蘭。芬蘭的經濟發展從比較利益（森林）到資本密集，最後利用的是全球競爭優勢而不是比較利益。請問在未來三大趨勢（少子化、高齡化與人口外移）之下，同樣也是土地面積小及面臨人口減少的台灣，您覺得台灣的政府或企業應該有怎樣的新思維？
- 5、作者 Roger J. Best 在 *Market-Based Management* 一書中，將客戶價值(Customer value)定義為客戶所獲得的利益(Customer benefits)與所付出成本(Costs)之間的差距(Customer value = Customer benefits - Costs)，請以藍海策略(Blue Ocean Strategy)一書中所提出的四項行動，即消除(Eliminate)、減少(Reduce)、提昇(Raise)、創造(Create)，為分析架構，舉一實例詳細並具體說明企業如何創造客戶價值。