一、「I Have called this book the General Theory of Employment, Interest and Money, placing the emphasis on the prefix general. The object of such a title is to contrast the character of my arguments and conclusions with those of the classical theory of the subject, upon which I was brought up and which dominates the economic thought, both practical and theoretical, of the governing and academic classes of this generation, as it has for a hundred years past. I shall argue that the postulates of the classical theory are applicable to a special case only and not to the general case, the situation which it assumes being a limiting point of the possible positions of equilibrium. Moreover, the characteristics of the special case assumed by the classical theory happen not to be those of the economic society in which we actually live, with the result that its teaching is misleading and disastrous if we attempt to apply it to the facts of experience.」

1. 上文作者是誰？請寫出其英文名字（2%）

2. 扼要說明上述一段文字所聲稱的兩大事項（20%）

3. 本文發表後的影響（8%）

二、試比較對照 30 年代及 90 年代美國經濟的盛衰狀況（30%）

三、試從下列總供需模式

(1) $Y=AN^aK^b$ ……………………（一國生產函數）

(2) $\dfrac{W}{P}=\dfrac{\partial Y}{\partial N}$ ……………………（利潤極大勞動需求）

(3) $N=BW$ ……………………（貨幣工資式的勞動供給）

(4) $PY=Q$ ……………………（單一彈性的總需求函數）

（式中內生變數為 Y, P, N, W；外生變數有 K, Q；參數有 A, B, a, b 等）

1. 導出總供需曲線（15%）

2. 試以比較靜態法，畫圖說明，於上列模式中如資本增加、但其他條件不變，則均衡內生變數值會有如何增減的變動情形發生（25%）。

Answer all questions. Be concise and complete, and answer as rigorously as you are able.

(20%)

1. Answer the following statements as true, false, or uncertain. Defend your answer briefly, but clearly. Undefended answers are not acceptable.

(a) Maximizing a firm's profits is identical to maximizing the firm's stock market value.

(b) The leader cannot get a lower profit in a Stackelberg equilibrium than he would get in the Cournot equilibrium.

(c) An explicit delineation of property rights usually eliminates the problem of externalities.

(d) Electric utilities often practice second-degree price discrimination.

(20%)

2. (a) Show how the demand curve may be derived from the price consumption curve.

(b) Show how the Engel curve may be derived from the income consumption curve.

(10%)

3. Suppose a consumer choose two goods, consumption and labor (C, L). She also has some nonlabor income (m), so that her utility function

$$\underset{C,L}{Max}\ U(C,L) \quad \text{such that } PC = wL + m$$

Show that this individual might decrease her hours of work as her wage rate increases.

(20%)

4. Consider a duopoly with product differentiation in which the demand and cost functions are

$$q_1 = 88 - 4p_1 + 2p_2, \quad C_1 = 10q_1 \qquad \text{for firm 1, and}$$

$$q_2 = 56 + 2p_1 - 4p_2, \quad C_2 = 8q_2 \qquad \text{for firm 2.}$$

Derive a price reaction function for each firm on the assumption that each maximizes its profit with respect to its own price. Determine equilibrium values of price, quantity, and profit for each firm.

(10%)

5. Find the production associated with the following cost function:

$$C = y(w_1^2 + w_2^2)^{1/2}$$

(20%)

6. The demand for telephones in a mid-size city is given by

$$Q = 1,000 - 50 P$$

where Q is the number of homes buying service (in thousands) and P is the monthly connect charge (in dollars). Phone system costs are given by

$$TC = 500 \, ln \, (0.1Q - 20) \quad \text{for Q} > 200.$$

(a) Is telephone production a natural monopoly in this city?

(b) What output level will an unregulated monopoly produce in this situation? What price will be charged? What will monopoly profits be?

(c) If there is contestable competition for the city franchise, what price will prevail?

*** 回答所有問題，5題共100分. **

1.(20%)

Let (X,Y) be a continuos random vector with joint density function

$$f(x,y) = cxy, \qquad 0 < x < y, 0 < y < 1.$$

What is the value of c it should be?

2.(20%).

Find the maximum-likelihood estimator for θ in the pdf

$$f_Y(y;\theta) = e^{-(y-\theta)}, y > \theta.$$

Assume a random sample of size n has been drawn.

3.(20%).

Let $Y_1, Y_2, ..., Y_n$ be a random sample from an $N(\mu, \sigma^2)$ pdf. Show that the variance of the sample variance is given by

$$Var(S^2) = \frac{2\sigma^4}{n-1} \qquad \text{where } S^2 = \frac{\sum_{i=1}^{n}(Y_i - \bar{Y})^2}{n-1}.$$

4.(20%).

Let $X_1 \sim N(2,4)$, $X_2 \sim N(4,10)$, and $X_3 \sim N(8,16)$. The covariance between X_1 and X_2, $cov(X_1, X_2) = 2$. Further, $cov(X_1, X_3) = -3$, and. $cov(X_2, X_3) = -5$. Now, let $Y_1 = X_1 - 2X_2 + 3X_3 - 4$, and

$Y_2 = 2X_1 + X_2 - 3X_3 + 5$. Find the joint distribution of Y_1, Y_2.

5.(20%)

Consider the multiple regression model $Y_i \sim N(\beta_1 + \beta_2 x + \beta_3 z^2, \sigma^2)$, independent. Suppose we observe the following data

x	-4	-2	-2	0	1	2	4
z	1	2	3	4	-3	-2	-5
Y	-10	-4	0	1	0	4	11

Find

(a). The ordinary least squares estimator of the β_i and the unbiased estimator of σ^2.

(b). Please test the null hypothesis that $\beta_3 = 4$.

〈附表〉

TABLE 1.　Cumulative Normal Distribution; Table Entry is Prob(Z ≤ z)

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

TABLE 3.　Percentiles of the Student's t Distribution; Table Entry is x Such That Prob($t_n \leq x$) = P

P / n	.750	.900	.950	.975	.990	.995
1	1.000	3.078	6.314	12.71	31.82	63.66
2	0.817	1.886	2.920	4.303	6.965	9.925
3	0.766	1.638	2.354	3.182	4.541	5.841
4	0.741	1.533	2.132	2.777	3.747	4.604
5	0.727	1.476	2.015	2.571	3.365	4.032
6	0.718	1.440	1.943	2.447	3.143	3.708
7	0.711	1.415	1.895	2.365	2.998	3.500
8	0.706	1.397	1.860	2.306	2.897	3.355
9	0.703	1.383	1.833	2.262	2.822	3.250
10	0.700	1.372	1.813	2.228	2.764	3.169
11	0.698	1.363	1.796	2.201	2.718	3.106
12	0.696	1.356	1.782	2.179	2.681	3.055
13	0.694	1.350	1.771	2.161	2.650	3.012
14	0.693	1.345	1.762	2.145	2.624	2.977
15	0.691	1.341	1.753	2.132	2.602	2.947
16	0.691	1.337	1.746	2.120	2.584	2.921
17	0.689	1.333	1.740	2.110	2.567	2.898
18	0.688	1.330	1.734	2.101	2.552	2.879
19	0.688	1.328	1.729	2.093	2.539	2.861
20	0.687	1.326	1.725	2.086	2.528	2.845
21	0.687	1.323	1.721	2.080	2.518	2.831
22	0.686	1.321	1.717	2.074	2.508	2.819
23	0.686	1.319	1.714	2.069	2.500	2.807
24	0.686	1.318	1.711	2.064	2.492	2.797
25	0.685	1.316	1.708	2.060	2.485	2.787
26	0.684	1.315	1.706	2.056	2.479	2.779
27	0.684	1.314	1.704	2.052	2.473	2.771
28	0.683	1.313	1.701	2.048	2.467	2.763
29	0.683	1.311	1.699	2.045	2.462	2.756
30	0.683	1.311	1.697	2.042	2.457	2.750
35	0.682	1.307	1.690	2.030	2.438	2.724
40	0.681	1.303	1.684	2.021	2.423	2.705
45	0.680	1.301	1.680	2.014	2.412	2.690
50	0.680	1.299	1.676	2.009	2.403	2.678
60	0.679	1.296	1.671	2.000	2.390	2.660
70	0.679	1.294	1.667	1.994	2.381	2.648
80	0.679	1.292	1.664	1.990	2.374	2.639
90	0.678	1.291	1.662	1.987	2.358	2.632
100	0.677	1.290	1.660	1.984	2.364	2.626
∞	0.674	1.282	1.645	1.960	2.326	2.576

一、選擇題 (20分，每一小題兩分，沒倒扣)

1. If consumers are relatively responsive to price changes, demand is said to be
   _____.
   (a). elastic
   (b). inelastic
   (c). favorable
   (d). unfavorable

2. The price elasticity of demand for a good will be greater (in absolute value) the
   _____the item in the budget and the _____ the number of substitutes.
   (a). smaller; greater
   (b). larger; greater
   (c). smaller; smaller
   (d). larger; smaller

3. The law of diminishing returns says that as more and more of an input is added in
   the production process, holding constant all other inputs, after some point the
   _____will begin to _____.
   (a). MPP of that input; decrease
   (b). MPP of that input; increase
   (c). total output; decrease
   (d). total output; increase

4. If actual price is below the market equilibrium, there will be a _____and price
   will _____.
   (a). shortage; increase
   (b). surplus; increase
   (c). shortage; decrease
   (d). surplus; decrease

5. A perfectly competitive firm will earn normal profit if price equals:
   (a). MC.
   (b). AVC.
   (c). MC=ATC.
   (d). MC=ATC=AVC.

6. Full employment exists when everyone:
   (a). is working.
   (b). who wants to work is working at the job he or she desires.
   (c). who wants to work at the prevailing wage rate is working at the job he or she desires.
   (d). who wants to work at the prevailing wage rate is working at a job for which he or she is qualified.

7. If the nominal rate of interest does not increase in proportion to the increase in prices during inflation, this is a good time to be a _____ .
   (a). lender
   (b). borrower
   (c). saver
   (d). a and c

8. Gross national product (GNP) is the total value of _____ in the economy during a given year.
   (a). sales
   (b). final goods and services produced
   (c). consumer goods produced
   (d). investment goods produced

9. The most likely outcome of printing money to finance deficits is:
   (a). legal difficulties.
   (b). unemployment.
   (c). inflation.
   (d). a run on banks.

10. A tax on a resource or input _____ its price and _____ its use.
    (a). increases; increases
    (b). decreases; increases
    (c). increases; decreases
    (d). decreases; decreases

二、問答題 (20 分)

　　飲用水是日常生活的基本必需品之一，需求很大，如果不是免費，通常其價格很低。鑽石雖然在日常生活中並非重要的必需品，一般需求不大，但其價格很貴(高)。請說明此種與需求情況相違背的價格行為。

三、問答題 (20 分)

　　為什麼 MR=MC (邊際效益=邊際成本) 原則下的產量，在獨占情形下是缺乏效率，但在完全競爭下卻是有效率？

四、問答題 (20 分)

　　自從去年七月發生東南亞金融風暴之後，台幣貶值約 20%，台灣經濟所受的衝擊相當輕微。如果在此一風暴過程中，我國中央銀行採取各種措施，強力維持台幣幣值不貶，你認為會產生什麼結果？請詳加分析。

五、問答題 (20 分)

　　假如一個國家為了解決貿易收支長期逆差(赤字)的問題，提出下列三項政策措施，以便縮減貿易赤字。請評估每一項措施，並說明那一項措施最可能有效地達到目的。
　　(a) 減少政府赤字
　　(b) 採取擴張性貨幣政策
　　(c) 提高貨物進口關稅

科目：經濟政策(經濟學研究所)

說明：1、本考試共五題，每題 20 分。
　　　2、回答時要註明題目號碼，不必按照題目次序回答；不必抄
　　　　　題目。

(1)台灣的經濟發展可以分成三個階段。
　　第一階段是進口取代(民國 42-53 年)，
　　第二階段是出口導向(民國 54-70 年)，
　　第三階段是高科技產業(民國 71 年至今)。
　　簡單描述每一個階段政府的主要政策。

(2)財政部所主導的財政政策是穩定經濟發展。說明此財政政策所採
　　用的工具有那些；及其對經濟的影響。

(3)去年東南亞發生金融風暴，國際貨幣基金會對印尼、泰國、菲律
　　賓及韓國等給予大量資金的融通。它對各國的總體經濟、外貿、
　　金融、財政等都有一些政策上的嚴格要求。說明此等政策。

(4)許多開發中國家都定期制定政策以促進經濟發展。說明政策在經
　　濟發展所扮演的角色。

(5)簡答題。
　　(5.1)政策(policy)與策略(strategy)的異同。
　　(5.2)政府的政策是否會破壞經濟的自由競爭市場。