I.　MULTIPLE CHOICE QUESTIONS　　　　　　　　　　　　　　(50%)

所有答案請寫在答案卷，答案請五題寫在一行如下列所示：

All answers must be written on the answer sheet; write answers to five questions in each row, for example:

1. A	2. B	3. C	4. D	5. A
6. B	7. C	8. D	9. A	10. B

1. The measure of location which is the most likely to be influenced by extreme values in the data set is the
   a. range
   b. median
   c. mode
   d. mean

2. If two events are independent, then
   a. they must be mutually exclusive
   b. the sum of their probabilities must be equal to one
   c. their intersection must be zero
   d. None of these alternatives is correct.

3. Two events, A and B, are mutually exclusive and each have a nonzero probability.　If event A is known to occur, the probability of the occurrence of event B is
   a. one
   b. any positive value
   c. zero
   d. any value between 0 to 1

4. A numerical description of the outcome of an experiment is called a
   a. descriptive statistic
   b. probability function
   c. variance
   d. random variable

5. In the textile industry, a manufacturer is interested in the number of blemishes or flaws occurring in each 100 feet of material.　The probability distribution that has the greatest chance of applying to this situation is the

    a. normal distribution
    b. binomial distribution
    c. Poisson distribution
    d. uniform distribution

6. Which of the following is not a property of a binomial experiment?

    a. the experiment consists of a sequence of n identical trials
    b. each outcome can be referred to as a success or a failure
    c. the probabilities of the two outcomes can change from one trial to the next
    d. the trials are independent

7. The level of significance is the

    a. maximum allowable probability of Type II error
    b. maximum allowable probability of Type I error
    c. same as the confidence coefficient
    d. same as the p-value

8. An important application of the chi-square distribution is

    a. making inferences about a single population variance
    b. testing for goodness of fit
    c. testing for the independence of two variables
    d. All of these alternatives are correct.

9. For a continuous random variable x, the probability density function f(x) represents

    a. the probability at a given value of x
    b. the area under the curve at x
    c. the area under the curve to the right of x
    d. the height of the function at x

10. Convenience sampling is an example of
    a. probabilistic sampling
    b. stratified sampling
    c. nonprobabilistic sampling
    d. cluster sampling

11. In hypothesis testing, the hypothesis tentatively assumed to be true is
    a. the alternative hypothesis
    b. the null hypothesis
    c. either the null or the alternative
    d. None of these alternatives is correct.

12. In point estimation
    a. data from the population is used to estimate the population parameter
    b. data from the sample is used to estimate the population parameter
    c. data from the sample is used to estimate the sample statistic
    d. the mean of the population equals the mean of the sample

13. A variable that takes on the values of 0 or 1 and is used to incorporate the effect of qualitative variables in a regression model is called
    a. an interaction
    b. a constant variable
    c. a dummy variable
    d. None of these alternatives is correct.

14. A property of a point estimator that occurs whenever larger sample sizes tend to provide point estimates closer to the population parameter is known as
    a. efficiency
    b. unbiased sampling
    c. consistency
    d. relative estimation

15. If a hypothesis is rejected at the 5% level of significance, it
    a. will always be rejected at the 1% level
    b. will always be accepted at the 1% level
    c. will never be tested at the 1% level
    d. may be rejected or not rejected at the 1% level

16. Which of the following does **not** need to be known in order to compute the p-value?
    a. knowledge of whether the test is one-tailed or two-tailed
    b. the value of the test statistic
    c. the level of significance
    d. None of these alternatives is correct.

17. The ANOVA procedure is a statistical approach for determining whether or not
    a. the means of two samples are equal
    b. the means of two or more samples are equal
    c. the means of more than two samples are equal
    d. the means of two or more populations are equal

18. The range of the Durbin-Watson statistic is between
    a. −1 to 1
    b. 0 to 1
    c. −infinity to + infinity
    d. 0 to 4

19. A random sample of 121 bottles of cologne showed an average content of 4 ounces.　It is known that the standard deviation of the contents (i.e., of the population) is 0.22 ounces. In this problem the 0.22 is
    a. a parameter
    b. a statistic
    c. the standard error of the mean
    d. the average content of colognes in the long run

20. Whenever using the t distribution in estimation, we must assume that
    a. the sample size is at least 30
    b. the sampling distribution is approximately normal
    c. the population is approximately normal
    d. the finite population correction factor is necessary

II. **PROBLEMS** (20%)

1. In a random sample of UTC students 50% indicated they are business majors, 40% engineering majors, and 10% other majors. Of the business majors, 60% were females; whereas, 30% of engineering majors were females. Finally, 80% of the other majors were male. Given that a person is male, what is the probability that he is an engineering major?

2. The life expectancy of Timely brand watches is normally distributed with a mean of four years and a standard deviation of eight months. Ninety-five percent of the watches will have a life expectancy of at least how many months?

3. Economists have stated that the marginal propensity to consume is at least 90? out of every dollar. Identify the null and alternative hypotheses

4. An ANOVA procedure is applied to data obtained from 6 samples where each sample contains 20 observations. The degrees of freedom for the critical value of F are ____ numerator and ____ denominator degrees of freedom

III. Let $X_1, X_2, \cdots, X_n$ be independent Bernoullli random variables with the probability of success θ, $f(x; \theta) = \theta^x (1-\theta)^{1-x}$, $x = 0, 1$. (30%)

1. Find the maximum likelihood estimator $\hat{\theta}$ of θ.

2. Find an estimator $\tilde{\theta}$ for θ by the method of moment.

3. Find the sufficient statistic of θ.

4. Show that $\bar{X} = \sum_{i=1}^{n} X_i / n$ is a MVUE of θ.

5. Is $\tilde{\theta}$ consistent for θ? Explain.

國立高雄大學九十七學年度研究所碩士班招生考試試題

科目：經濟學
考試時間：100 分鐘

系所：
經濟管理研究所碩士班甲組　是否使用計算機：否
本科原始成績：100 分

I.　MULTIPLE CHOICE QUESTIONS　　　　　　　　　　　　　(50%)

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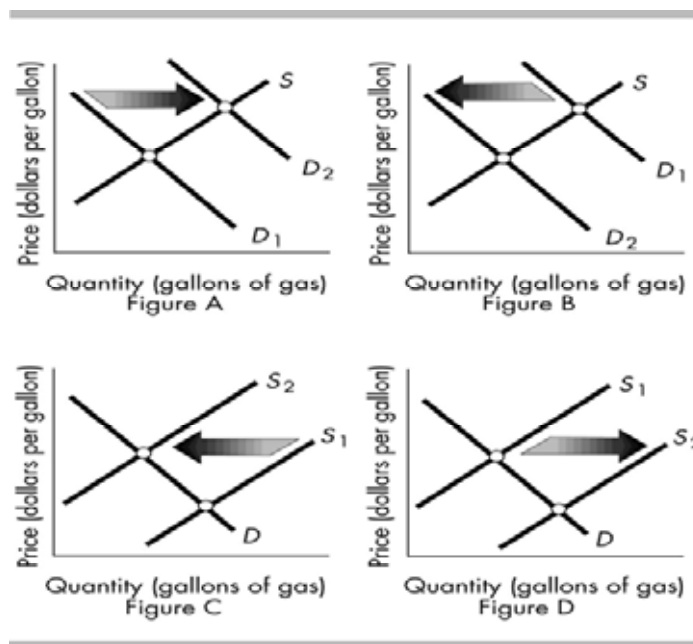
6. B　　7. C　　8. D　　9. A　　10. B

1. In the market for magazines, the ncome effect? means that

    A) magazines are usually purchased by people with higher than average incomes.

    B) a decrease in the price of a substitute product like books will make magazine readers feel a little poorer than they were before.

    C) an increase in the price of magazines will reduce the total purchasing power of magazine readers, making them able to afford fewer magazines.

    D) an increase in the price of magazines will raise the relative price of magazines to books, causing magazine readers to read more books and fewer magazines.

2. When the price of an inferior good falls, *ceteris paribus*, the substitution effect leads to _____ in the quantity purchased and the income effect leads to _____ in the quantity purchased.

    A) an increase; an increase

    B) an increase; a decrease

    C) a decrease; an increase

    D) a decrease; a decrease

3. The four parts of the business cycle occur in the following order:

    A) recession, trough, peak, expansion.

    B) expansion, trough, peak, recession.

    C) recession, trough, expansion, peak.

    D) expansion, trough, recession, peak.

4. Electric utility companies have built larger and larger electric generating stations and, as a result, the long-run average cost of producing each kilowatt hour decreased. This is an example of

    A) constant returns to cost.

    B) increasing returns to cost.

    C) economies of scale.

    D) diseconomies of scale.

5. Suppose Sandy Candies wants to increase its total revenues. If Sandy increases the price of her candy, she must be assuming that the demand for candy is

A) unit elastic.

B) inelastic.

C) elastic.

D) income elastic.

6. The above figures show the market for gasoline. Which figure shows the effect of a nation-wide strike by municipal bus drivers, which causes more people to drive their cars to work?

A) Figure A

B) Figure B

C) Figure C

D) Figure D

7. The above figures show the market for gasoline. Which figure(s) shows the effect of a new U.S. tax on oil that suppliers must pay?

A) Figures A and C

B) Figures B and D

C) Figure A only

D) Figure C only

國立高雄大學九十七學年度研究所碩士班招生考試試題

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8. The cost of inflation to society includes

A) unpredictable changes in the value of money.

B) higher interest rates paid by borrowers.

C) higher interest rates paid by the government on its debt.

D) the lost spending when people do not have enough money.

9. Which of the following pieces of information do you need to calculate the labor force participation rate?

      I.   the number of employed persons

      II.   the number of unemployed persons

      III.   the population

      IV.   the working age population

A) I and II

B) I and III

C) I, II and III

D) I, II and IV

10. Which of the following is the most liquid asset?

A) money

B) land

C) a government bond

D) a share of stock

11. If average variable cost is decreasing as output increases, then marginal cost is *definitely*

A) decreasing as output increases.

B) increasing as output increases.

C) less than average variable cost.

D) greater than average variable cost.

12. When all of the economy　resources are fully employed, the value of production is called

A) real GDP.

B) nominal GDP.

C) actual GDP.

D) potential GDP.

13. Which of the following is true regarding perfect competition?

    I. The firms are price takers.

    II. Marginal revenue equals the price of the product.

    III. Established firms have no advantage over new firms.

A) I and II

B) II and III

C) I, II and III

D) I only

14. If a perfectly competitive firm decides to shut down in the short run, its loss will equal its

A) minimum average variable cost, *AVC*.

B) total variable cost, *TVC*.

C) total fixed cost, *TFC*.

D) average total cost, *ATC*.

15. Patents encourage invention by

A) offering subsidies to inventors.

B) offering tax breaks to inventors.

C) preventing others from copying an invention.

D) preventing inventors from working on the same project.

16. Which of the following is TRUE regarding job creation?

    I. The number of jobs created increases during an expansion.

    II. Job creation is fairly steady over the business cycle.

    III The number of jobs created decreases during a recession.

A) I and II

B) I and III

C) II and III

D) II only

17. Frictional unemployment comes about because of

A) friction between labor and management.

B) a mismatch between skills and available jobs.

C) normal labor market turnover.

D) a general economic slowdown.

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18. If the price level decreases and workers? money wage rates remain constant, which of the following will occur?

     I.   The quantity of labor supplied will increase.

     II.   The real wage rate will decrease.

     III.   The labor supply curve will shift leftward.

A) I

B) I and II

C) II and III

D) I, II and III

19. The real interest rate

A) can never be negative.

B) is approximately equal to the nominal interest rate plus the inflation rate.

C) is approximately equal to the nominal interest rate minus the inflation rate.

D) is positively related to the inflation rate.

20　Credit cards are

A) a part of money because they are used in so many transactions.

B) a part of money when the transaction approach is used but not when the liquidity approach is used.

C) not part of money because they represent a loan of money to the user.

D) not part of money because the government has no control over the amount of credit outstanding.

II   ESSAY   (50%)

1. What is an efficiency wage? Why might a firm choose to pay an efficiency wage? What effect does an efficiency wage have on unemployment?

2. In the foreign exchange market, how does a fall in the U.S. interest rate affect the supply of dollars?

3. If an economy is producing at a point on its *PPF*, it has achieved allocative efficiency. True or false? Explain.

4. When countries specialize in producing the good in which they have a comparative advantage and then trade with each other, only the country with the absolute advantage gains. Is the previous statement correct or incorrect? Briefly explain your answer.

5. Does the fact that diamonds, which we do not need to survive, are more expensive than water, which is a necessity, constitute a violation of utility maximization?

I. Multiple Choice Questions (30%)

Please select <u>ONE</u> most appropriate answer in the following questions.

(　　) 1. When considering outsourcing, what should firms be sure to avoid?

　　A) Losing control of non-core activities which don distinguish the firm.

　　B) Allowing outsourcing to develop into a substitute for innovation.

　　C) Giving the outsourcing partner the opportunity to become a strong competitor.

　　D) Allowing employees transferred to the outsourcing partner to rejoin the firm.

　　E) Adverse corporate tax implications of asset transfers to the outsourcing partner.

(　　) 2. Which of the following statements is **TRUE**?

　　A) Maslow hierarchy of needs started with belongingness, progressed to safety, and finally to esteem.

　　B) McGregor believed that workers?motivation could be classified into one of two assumptions: Theory X workers and Theory Y workers.

　　C) Most early interpretations of the Hawthorne studies agreed that money was the cause of the increased output.

　　D) Bureaucratic Management theory was first described by Elton Mayo during the 1800s.

　　E) Henry Fayol suggested decisions based upon rule of thumb and tradition be replaced with more precise decisions and procedures developed after careful study of the situation.

(　　) 3. Which of the following statements is **FALSE**?

　　A) Empowerment primarily means giving people power.

　　B) Corporate culture includes stories that keep an organization's values alive.

　　C) When goals are specific, measurable, challenging and linked to rewards, they are most effective.

　　D) One of the problems with the MBO process is that strategic goals may be displaced by operational goals.

　　E) The purpose of horizontal communication is not only to inform but also to request support and cooperation.

(　　) 4. A successful dialogue requires that participants should

　　A) actively persuade those they are communicating with.

　　B) not deviate from the topic being deliberated.

　　C) remain firm and attached to a particular viewpoint.

　　D) stay focused on their point of view only.

　　E) talk openly to discover common ground.

(　) 5. RFID (Radio Frequency Identification) chips:

I. are used to track goods in distribution.

II. are used to track job progress in production.

III. may provide special instructions to operators.

IV. can be used in inventory record keeping.

A) II and III only.

B) I and II only.

C) II, III, and IV.

D) I, II, and IV.

E) IV only.

(　) 6. ONE of the disadvantages of MBO is that:

A) the process is very quick and informal.

B) the process has no effect on worker commitment.

C) the program only emphasizes what should be done in an organization.

D) carrying out the process is time consuming and requires additional paperwork.

E) MBO duplicates other management practices.

(　) 7. A group decision-making process which forbids negative feedback on any suggested alternative by any group member until all members have presented alternatives is known as:

A) Groupthink.

B) Brainstorming.

C) the Delphi technique.

D) the Nominal Group technique.

E) the Devil　Advocate technique.

(　) 8. _____ imports develop when importers buy products from distributors in one country and sell them in another country to distributors who are not part of the manufacturer's regular distribution system.

A) Black-listed

B) Direct

C) Circular

D) Co-mingled

E) Parallel

國立高雄大學九十七學年度研究所碩士班招生考試試題

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(　) 9. Characteristics of the message itself help to determine its impact on attitudes. All of the following are issues that marketers are facing **EXCEPT** for this one.

A) Should price be the prominent feature of any message?

B) Should the message be conveyed in words or pictures?

C) How often should the message be repeated?

D) Should both sides of an argument be presented?

E) Should the newest manufacturing procedures be adopted?

(　) 10.What is the major problem with Maslow　Hierarchy of Needs in organizational behavior?

A) it is difficult to apply to the workplace

B) it is vague as to how a workplace can satisfy higher-order needs

C) its terminology tends to alienate those to whom it is applied

D) it is almost impossible to assess how well an individual has a particular need filled

E) there is little evidence that needs are structured or operate in the way it describes

(　) 11. Performance evaluations are used as a mechanism for all of the following **EXECPT** _____.

A) monitoring the success of marketing strategies.

B) determining promotions.

C) human resource planning.

D) identifying training and development needs.

E) none of the above.

(　) 12. What does an organization **NOT** do to improve control?

A) Increase the number of managers.

B) Increase the number of levels.

C) Increase the number of employees.

D) Make the hierarchy taller.

E) Decrease the span of control.

(　) 13. Coordination abilities refer to:

A) the skills possessed by functional personnel.

B) the attributes that provide a competitive edge.

C) planning the organization　strategy.

D) linking functional and organizational resources.

E) improving organization　quality standard.

(　) 14. When a need is aroused that the consumer wishes to satisfy, the _____ process has been activated.

A) goals

B) need

C) desire

D) motivation

E) vision

(　) 15. Recent leadership theories such as charismatic and transformational leadership:

A) emphasize rational processes more than rational processes.

B) emphasize emotional processes more than rational processes.

C) describe emotional and rational processes as equally important.

D) de-emphasized both rational and emotional processes.

E) none of the above.

II. Essay Questions

1. Assume you are the new CEO hired by the XYZ company to help turn around the company which is faced with declining profits and new competition in the marketplace. The former CEO had been a General in the US Army before assuming the position with this company and had a reputation as an autocrat.

　　Based on your knowledge of the company you suspect they are slow to respond to changes in the external environment, which demands a more customer responsive organization. Some competitors have successfully developed a more team based production model. While there are many talented individuals in the company, the traditional bureaucratic culture has tended to make them risk adverse. Managers have been reluctant to take risks because one failed project could very negatively impact a manager's career.

　　What should be done to improve the organization's effectiveness based on concepts and theories from Organization Behavior, Leadership, Human Resource, and Organizational Theory? (20%)

(** Note: In developing your answer be sure to give a rationale as to why the concepts and theories are the most relevant and appropriate for the situation described.)

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2. Assume that ABC Company wants to secure manufacturing and distribution capabilities in Country X. They are considering three (3) possible market entry modes: licensing, joint venture, and wholly-owned subsidiary.

　　Evaluate and discuss the key features of the three (3) modes of market entry including their respective advantages and disadvantages. (15%)

3. Bounded rationality is a term that refers to the limits imposed on decision-making because of costs, human abilities, time, technology, and availability of information, ..., etc.. Please imply the concept of bounded rationality and specify situations that each department in a company attempts to reach a solution that is optimum for its own but may not be optimum for the organization as a whole. (15%)

4. Strategic alliances and network structures are two recent innovations in organizational architecture.
   (1) What advantages do they bring to organizations? (10%)
   (2) Describe how changes in information technology have impacted their growing popularity. (10%)