考試科目	經濟學	系所別	國貿、企管 風管、科管	考試時間	2月5日(五)第二節

Multiple Choice (1 point each)

Identify the letter of the choice that best completes the statement or answers the question.

1. When a country allows trade and becomes an exporter of a good,
   A. everyone in the country benefits.
   B. everyone in the country loses.
   C. the gains of the winners exceed the losses of the losers.
   D. the losses of the losers exceed the gains of the winners.

2. Inefficiency in monopolistically competitive markets can be identified with
   A. their similarities to perfectly competitive markets.
   B. not having the ideal number of firms in the industry.
   C. a first-best equilibrium, where price is equal to marginal cost.
   D. government programs that effectively regulate price.

3. When a farmer is making a long-run decision of whether or not to exit an industry, the cost of land
   A. will be considered as part of the farm's fixed cost.
   B. is treated differently than the cost of machinery.
   C. is not considered a sunk cost.
   D. is irrelevant to the strategic decision.

4. Economists compute the price elasticity of demand as
   A. the percentage change in the price divided by the percentage change in quantity demand.
   B. the percentage change in the quantity demanded divided by the percentage change in price.
   C. the change in quantity demanded divided by the change in the price.
   D. the percentage change in the quantity demanded divided by the percentage change in income.

5. Suppose you like banana cream pie made with vanilla pudding. Assuming all other things are constant, you notice that the price of bananas is higher. How would your demand for vanilla pudding be affected by this?
   A. It would decrease.
   B. It would increase.
   C. It would be unaffected.
   D. There is insufficient information given to answer the question.

備註	一、作答於試題上者，不予計分。 二、試題請隨卷繳交。

考試科目	經濟學	系所別	國貿、企管 風管、科管	考試時間	2月 5日(五) 第 二 節

6. Jack's Hotdogs is a small street vendor business. The owner is trying to get a better understanding of his costs by categorizing them as fixed or variable. Which of the following costs are most likely to be considered fixed costs?

A. the cost of ketchup

B. the cost of hotdog buns

C. wages paid to workers who sell hot dogs

D. the cost of bookkeeping services

7. After watching a movie, Alan chooses not to watch a second and goes for a walk instead. Economists could explain his choices using the concept of

A. budget constraints.

B. diminishing marginal utility.

C. income effect.

D. substitution effect.

8. The tragedy of the commons is the

A. undersupply of a public good due to people not wanting to pay for a publicly common good.

B. disappearance of certain markets due to the lack of willingness to pay by individuals, leading to collective misfortune.

C. depletion of a common resource due to individually rational but collectively inefficient over-consumption.

D. notion that common resources are generally under consumed and therefore not produced by suppliers due to artificially low demand.

9. The more firms there are in a market, the

A. larger will be the price effect of one firm's output decision.

B. smaller will be the price effect of one firm's output decision.

C. more collusion is likely to happen.

D. price effect must outweight the output effect.

10. Ethan enjoys buying books and going to the movies. He has income of $150 to spend on these two goods each month. The price of a book is $15 and the price of going to the movies is also $15. He currently consumes four books and six movies a month. If the price of a book increases to $20, then,

A. the substitution and income effects would both predict Ethan would consume more of both goods.

備註	一、作答於試題上者，不予計分。 二、試題請隨卷繳交。

考試科目	經濟學	系所別	國貿、企管 風管、科管	考試時間	2月 5日(五)第二節

B. the substitution and income effects would both predict Ethan would consume less of both goods.

C. the substitution effect would predict Ethan would consume more books and less movies, and the income effect would predict he would consume less of both.

D. the substitution effect would predict Ethan would consume less books and more movies and the income effect would predict he would consume less of both.

11. The rise of the price of imported goods
A. will directly affect GDP deflator.
B. will directly affect CPI.
C. will directly affect both GDP deflator and CPI.
D. will not directly affect both GDP deflator and CPI.

12. What is not a possible reason if a government prints money to stimulate the economy, but the unemployment rate keeps the same?
A. Nationals are fully rational.
B. There are no menu costs.
C. The money multiplier is greater than 1 but smaller than 2.
D. The short-run Phillipe curve is a vertical line.

13. Country *A* only has 5 people. The current unemployment rate is 25%. Which statement of the followings is wrong?
A. There is no discourage worker.
B. One of them might be a full-time student.
C. Two of them have no jobs and are seeking for jobs.
D. There is one discouraged worker.

14. Which policy of the followings is not a possible solution for the rising housing prices?
A. Central banks sell government bonds through open market operations.
B. Central banks cut the discount rate.
C. Central banks raise the reserve requirements.
D. Central banks set a mortgage cap.

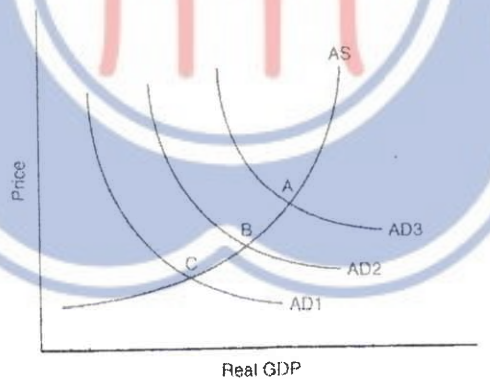
備註	一、作答於試題上者，不予計分。 二、試題請隨卷繳交。

考試科目	經濟學	系所別	國貿、企管 風管、科管	考試時間	2月5日(五)第二節

15. The marginal propensity of saving in Country A is 0.5. Currently, the country is suffered from COVID-19 and the government gives 3000 local dollars to every national. Suppose due to this policy, each national can help to increase money supply 2000 local dollars through the fractional-reserve banking system. What is the reserve ratio for Country A?
    A. 20%
    B. 30%
    C. 40%
    D. 50%

16. Stagflation occurs when
    A. real GDP increases and price levels decrease.
    B. real GDP decreases and price levels decrease.
    C. unemployment and price levels increase.
    D. nominal GDP decreases and price levels increase.

17. The multiplier effect will be greater on aggregate demand if
    A. there is no increase in the price level.
    B. both aggregate demand and aggregate supply increase.
    C. both aggregate demand and aggregate supply decrease.
    D. aggregate demand increases and aggregate supply decreases.



18. According to the preceding diagram, the economy is at equilibrium at Point A. Choose the best fiscal policy most appropriate to control demand-pull inflation.
    A. Decrease aggregate demand by increasing taxes.
    B. Increase aggregate demand by decreasing taxes.
    C. Decrease aggregate supply by increasing taxes.
    D. Increase aggregate demand by increasing government spending.

備註	一、作答於試題上者，不予計分。 二、試題請隨卷繳交。

考試科目	經濟學	系所別	國貿、企管 風管、科管	考試時間	2月5日(五)第二節

19. The crowding out effect may be avoided if
    A. the government pursues a contractionary fiscal policy.
    B. the government destroys a percentage of the money supply.
    C. the government issues new money.
    D. A and C.

20. A disadvantage of a floating exchange rate is that
    A. trade may worsen due to a nation's depreciation of its currency.
    B. tariffs cease to be effective.
    C. exports decrease.
    D. imports decrease.

Problems and Short-essay Questions

Please answer the following questions IN SEQUENCE. All questions may be answered in either Chinese or English.

1. Let the inverse demand function of good x in a country be $P_x = 5 - D_x$, where P_x is the price of x and D_x is the quantity demanded. The quantity supplied is Q_x and the inverse supply function is $P_x = 3 + Q_x$. Answer the following questions.

A. (4 points) Derive the equilibrium price under autarky.

B. (8 points) Suppose the country is small. The price of x in the international market is 3. Will the country import or export x? Calculate the quantity of export or import.

C. (8 points) Calculate the consumer and producer surplus under autarky and trade. Measure the gains from trade in terms of surplus.

2. The inverse market demand curve for a final good is $p = 100 - Q$ and the marginal cost of supplying labor is $MC_L = 40$. Each unit of output requires half unit of labor, L, and no other factor. That is, $Q = 2L$.

A. (4 points) If the factor market is perfectly competitive and the output market is a monopoly, what are the equilibrium quantity and price in both factor and output markets?

B. (10 points) If both the factor and output markets are a monopoly, what are the equilibrium quantity and price in these two markets? How much profit does each firm make?

C. (6 points) Show that a vertical merger of the upstream and downstream monopoly increases profit and benefits consumers.

備註	一、作答於試題上者，不予計分。 二、試題請隨卷繳交。

考試科目	經濟學	系所別	國貿、企管 風管、科管	考試時間	2月5日(五)第二節

3. Country A's Phillips curve can be written as:

$$u = u_{natural} = 0.5(\pi - x),$$

where u is the unemployment rate, u_n is the natural unemployment rate, and π is the current inflation rate. Please answer the following questions in detail.

A. (5 points) What does x stand for?

B. (5 points) Suppose Country A's structural unemployment rate is 3%, frictional unemployment rate is 2%, and cyclical unemployment rate is 1%. Please calculate the inflation rate, given x equals 1%.

C. (5 points) Following (B), suppose Country A announces to set an 3% inflation target in the coming year. Under the assumption of rational expectation and other things remaining the same, what will the current unemployment rate change?

D. (5 points) Following (C), suppose the government does not want to hurt the investment and the current nominal interest rate is 4%. What is the ideal nominal interest rate in the coming year?

4. Imagine an open economy in which Ricardian equivalence holds. This economy has a budget deficit of 50, a trade deficit of 20, and investment of 100.

A. (6 points) Define Ricardian equivalence.

B. (7 points) What is the level of private savings in this economy?

C. (7 points) If the budget deficit rises to 70, how are private savings affected?

備註	一、作答於試題上者，不予計分。 二、試題請隨卷繳交。

國立政治大學 110 學年度碩士班暨碩士在職專班招生考試試題

考試科目	統計學	系所別	國際經營與貿易學系/國際經濟、國際財管、國際企管與行銷組一般生	考試時間	2 月 5 日(五)第 四 節

選擇題請在答案卡上作答，否則不予計分。

Multiple Choice Problems, choose the best answer (4 points each, 100 points in total)

1. Consider n samples independently drawn from a distribution with mean 0 and variance 1. What is the minimum value of n that will make variance of the sample mean no greater than 0.01?
   a. 30; b. 4; c. 100; d. n does not matter here; e. None of the above is correct.

2. A 95% confidence interval of a population mean is $[\underline{\mu}, \overline{\mu}]$. Which of the following statement is the most correct one?
   a. If random samples were drawn again and again, with $\underline{\mu}$ and $\overline{\mu}$ computed each time, the population mean would lie in the interval $[\overline{\mu}, \underline{\mu}]$ 95% of the samples.
   b. If $\underline{\mu} = 0.1$ and $\overline{\mu} = 0.5$, the population mean would lie in the interval $[0.1, 0.5]$ with 95% probability.
   c. If $\underline{\mu} = 0.05$ and $\overline{\mu} = 0.55$, the population mean might still lie outside the interval $[0.05, 0.55]$.
   d. If $\underline{\mu} = 0.03$ and $\overline{\mu} = 0.56$, the population mean would lie in the interval $[0.03, 0.56]$ greater than 95% probability.
   e. a and c.

3. If $E[X|Y] = E[X]$, then
   a. X and Y are mutually independent; b. X and Y are uncorrelated; c. $E[X^2|Y] = E[X^2]$; d. $Var(X|Y) = Var(X)$; e. $E[X] = 0$.

4. Consider the following hypothesis test about population mean: $H_0 : \mu = 3$, $H_1 : \mu > 3$. Which of the following results gives most supportive evidence to reject the hypothesis?
   a. Sample mean equals to 5 and standard error equals to 1.
   b. Sample mean equals to 5 and standard error equals to 2.
   c. Sample mean equals to 3.5 and standard error equals to 1.
   d. Sample mean equals to 2 and standard error equals to 1.
   e. Sample mean equals to 2 and standard error equals to 0.5.

5. Suppose we want to test $H_0 : \mu = \mu_0$ against $H_1 : \mu \neq \mu_0$:
   a. The power function of the test is a function of μ and describes the probability of rejecting H_0.
   b. The maximum probability of committing a Type I error is called the power of the test.
   c. The minimum probability of committing a Type II error is called the size of the test.
   d. When the power function is evaluated at μ_0, the value equals to the probability of committing a Type II error.
   e. None of the above is correct.

6. Consider two continuous random variables (X, Y) with $X \in [0, \infty]$ and $Y \in [1, 5]$. The joint density function of (X, Y) is

$$f_{XY}(x, y) = \begin{cases} \frac{1}{4} y \exp(-xy) & \text{if } X \in [0, \infty], Y \in [1, 5] \\ 0 & \text{otherwise} \end{cases}$$

   What is the conditional density function of X given $Y = 1$ if $X \in [0, \infty]$?
   a. $\exp\left(-\frac{x}{2}\right)$; b. $\frac{1}{2}\exp(-x)$; c. $\exp(-x)$; d. $\frac{1}{4}\exp(-x)$; e. $\frac{1}{4}\exp\left(-\frac{1}{2}x\right)$.

考試科目	統計學	系所別	國際經營與貿易學系/國際經濟、國際財管、國際企管與行銷組一般生	考試時間	2 月 5 日(五)第 四 節

7. Consider an experiment having two outcomes: success with probability $p = 0.12$ and failure with probability $1 - p = 0.88$. Suppose we independently conduct the experiment n times and estimate p with

$$\hat{p} = \frac{\text{number of success experiments}}{n}$$

What is the minimum value of n that will make standard deviation of $\hat{p}$ no greater than 0.01?
a. 30; b. 1056; c. 33; d. n does not matter here, e. None of the above is correct.

8. A population is composed of 5 numbers: 2, 4, 6, 8, 10. Let μ and σ denote mean and standard deviation of the population, and $\mu_{\bar{X}}$ and $\sigma_{\bar{X}}$ denote mean and standard deviation of the sample mean from the population. Which of the following statement is the most correct one?
a. $\mu = 6, \sigma = 3.16$; b. $\mu_{\bar{X}} = 6, \sigma_{\bar{X}} = 3.16$; c. $\mu_{\bar{X}} = 6, \sigma_{\bar{X}} = 2.83$; d. $\mu = 6, \sigma = 2.83$; e. $\mu_{\bar{X}} = \mu$, $\sigma = 3.16$.

9. If we calculate sample mean from the population in question 8, with sample size equal to 2. Let $f_{\bar{X}_2}(x)$ and $F_{\bar{X}_2}(x)$ denote the theoretical density and cumulative distributions of the sample mean, respectively. Which of the following statement is the most correct one?
a. $f_{\bar{X}_2}(4) = 0.13$, $F_{\bar{X}_2}(4) = 0.2$; b. $f_{\bar{X}_2}(5) = 0.2$, $F_{\bar{X}_2}(4) = 0.2$; c. $f_{\bar{X}_2}(3) = 0.1$, $F_{\bar{X}_2}(4) = 0.3$; d. $f_{\bar{X}_2}(7.8) = 0.1$, $F_{\bar{X}_2}(8) = 0.7$; e. $f_{\bar{X}_2}(5.5) = 0.08$, $F_{\bar{X}_2}(7) = 0.7$.

10. If we calculate a sample mean from the population in question 8, with sample size equal to 2. Let $\mu_{\bar{X}_2}$ and $\sigma_{\bar{X}_2}$ denote mean and standard deviation of the sample mean. Which of the following statement is the most correct one?
a. $\mu_{\bar{X}_2} = 5.5$, $\sigma_{\bar{X}_2} = 3.16$; b. $\mu_{\bar{X}_2} = 6$, $\sigma_{\bar{X}_2} = 1.73$; c. $\mu_{\bar{X}_2} = 6$, $\sigma_{\bar{X}_2} = 2.83$; d. $\mu_{\bar{X}_2} = 5.5$, $\sigma_{\bar{X}_2} = 1.89$; e. $\mu_{\bar{X}_2} = 6$, $\sigma_{\bar{X}_2} = 2.04$.

11. Consider two discrete random variables (X, Y) with $X \in \{0, 1, 2\}$ and $Y \in \{0, 3\}$. The joint probability mass function of (X, Y) is

$$p_{XY}(x, y) = \begin{cases} \frac{1}{3} & \text{if } x = 0, y = 0 \\ \frac{1}{3} & \text{if } x = 1, y = 3 \\ \frac{1}{3} & \text{if } x = 2, y = 0 \\ 0 & \text{otherwise} \end{cases}$$

What is the conditional expectation of X given $Y = 0$?
a. 0.5; b. 1; c. $\frac{5}{3}$; d. $\frac{2}{3}$; e. None of the above.

12. Let X be a positive random variable whose expectation equals to 5. Consider the probabilities that: $P(X < 10)$ and $P(X \geq 8)$. Which of the following statement is the most correct one?
a. $P(X \geq 8) > 0.7$; b. $P(X < 10) > 0.5$; c. $P(X < 10) < 0.3$; d. $P(X < 10) < 0.4$; e. $P(X < 8) < 0.2$.

13. Suppose that $\Omega = \{a, b, c, d, e\}$ and A and B are subsets of Ω. It is known that the complement of A, $A^c = \{a, b, c\}$ and the complement of B, $B^c = \{b, c, d\}$. What is the complement of A or B, $(A \cup B)^c$?
a. $\{d\}$; b. $\{b, c\}$; c. $\{a, e\}$; d. $\{a, b, c, d\}$; e. $\{a, d, e\}$.

備註	一、作答於試題上者，不予計分。 二、試題請隨卷繳交。

考試科目	統計學	系所別	國際經營與貿易學系/國際經濟、國際財管、國際企管與行銷組一般生	考試時間	2 月 5 日(五)第 四 節

14. Let X be a continuous random variable with density function

$$f_X(x) = \begin{cases} \frac{3}{8}x^2 & \text{if } x \in [0,2] \\ 0 & \text{otherwise} \end{cases}$$

Let $Y = \sqrt{X+1}$. What is the density function of Y if $Y \in [1, \sqrt{3}]$?
a. $\frac{3}{8}(y^2-1)^2 y$; b. $\frac{3}{4}(y^2-1)^2 y$; c. $\frac{3}{8}(y-1)^2 y$; d. $\frac{3}{4}(y^2-\sqrt{3})^2 y$; e. $\frac{3}{4}(y-1)^2$.

15. Consider n samples independently drawn from a distribution with mean 0 and variance 1. What is the minimum value of n that will make bias of the sample mean no greater than 0.1?
a. 30; b. 3; c. 100; d. n does not matter here; e. None of the above is correct.

16. Let X be a random variable whose expectation equals to 3 and variance equals to 5. Consider the probabilities: $P(|X-3|<10)$ and $P(|X-3|\geq 8)$. Which of the following statement is not the correct one?
a. $P(|X-3|<10) > 0.75$; b. $P(|X-3|\geq 8) \geq 0.1$; c. $P(|X-3|\geq 8) < 0.05$; d. $P(|X-3|\geq 8) \geq 0.06$; e. $P(|X-3|<10) > 0.8$.

17. Consider n samples $(X_1, X_2, \ldots, X_n)$ independently drawn from a distribution with mean $\mu = 0$ and variance $\sigma^2 = 1$. The following estimator is used to estimate σ^2:

$$\widehat{\sigma_n^2} = \frac{1}{n}\sum_{i=1}^{n} X_i^2.$$

What is the minimum value of n that makes bias of $\widehat{\sigma_n^2}$ no greater than 0.01?
a. 30; b. 7; c. $\widehat{\sigma_n^2}$ is a biased estimator and so increasing n has no effect on reducing the bias; d. n does not matter here; e. $\widehat{\sigma_n^2}$ is a biased estimator in finite sample but increasing n can reduce the bias.

18. Suppose Y is a Poisson random variable with mean $\lambda = 4$ and X is a Chi-square random variable with degree of freedom $df = 2$. Which of the following statement is the most correct one?
a. Covariance between X and Y is greater than 6; b. $E[X+Y] = 4$; c. Variance of $X+Y$ equals to 8; d. Covariance between $2X$ and $3Y$ is between -24 and 24; e. Variance of $X+Y$ is between 8 and 16.

19. In country A, according to past experience, 40% of video game consoles sold were PS4, 10% were xbox I and 50% were Switch. To maintain the inventory of each type of video game consoles, Tony conducts a survey and gather a random sample of 100 sales of video game consoles and finds that 30 of them are PS4, 30 are xbox I and 40 are switch. To test whether past pattern of sales of video game consoles still prevails, Tony uses the chi-square test with 1% level of significance. Let $Q_{\chi_k^2}(\alpha)$ denote the αth quantile of a chi-square random variable with degree of freedom k:
a. The value of the test statistic is 44.5 and the critical value used should be $Q_{\chi_2^2}(0.99)$.
b. The value of the test statistic is 17.83 and the critical value used should be $Q_{\chi_3^2}(0.995)$.
c. The value of the test statistic is 42 and the critical value used should be $Q_{\chi_2^2}(0.99)$.
d. The value of the test statistic is 45.33 and the critical value used should be $Q_{\chi_3^2}(0.99)$.
e. The value of the test statistic is 45.33 and the critical value used should be $Q_{\chi_2^2}(0.995)$.

備註	一、作答於試題上者，不予計分。 二、試題請隨卷繳交。

考試科目	統計學	系所別	國際經營與貿易學系/國際經濟、國際財管、國際企管與行銷組一般生	考試時間	2 月 5 日(五)第 四 節

20. Let (X, Y) be two random variables such that standard deviation of X is 2 and covariance between X and Y is 2. What is the covariance between $3X$ and $X + 3Y$?
a. 21; b. 10; c. 25; d. 16; e. 30.

21. Let X be a strictly positive random variable, whose expectation equals to 0.5 and variance equals to 1. Which of the following statement is the most correct one?
a. $E[\ln(2X)] > 0.5$; b. $E[\ln(2X)] \leq 0$; c. $\ln(E[X^2]) > -0.2$; d. $\ln(E[X^2]) < -0.3$; e. $2\ln(E[X]) > -1$.

22. A manager wants to see whether the proportion of acceptable products from supplier A, p_A is greater than for supplier B, p_B. The manager draw $n_A = 123$ random sample from A's and $n_B = 94$ samples from B's products. She finds that acceptable rates of samples for products from A and B are $\bar{p}_A = 0.87$ and $\bar{p}_B = 0.79$, respectively. The manager plans to compute a test statistic and compare it with critical value from a standard normal distribution with significance level 5%:
a. The value of the test statistic is 1.575 and the critical value is 1.645.
b. The value of the test statistic is 3.061 and the critical value is 2.33.
c. The value of the test statistic is 0.984 and the critical value is 1.96.
d. The value of the test statistic is 3.33 and the critical value is 2.33.
e. The value of the test statistic is 1.775 and the critical value is 1.645.

23. Consider an experiment having two outcomes: success (probability $p = 0.1$) and failure (probability $1 - p = 0.9$). Suppose the experiment is independently conducted n times and p is estimated with

$$\hat{p} = \frac{\text{number of success experiments}}{n}$$

What is the minimum value of n that will make $E[\hat{p}] - p \leq 0.001$?
a. 30; b. 6; c. 90; d. n does not matter here; e. None of the above is correct.

24. Which of the following statement is the most correct one?
a. A Type I error is an error such that if the null is hypothesis is true, we reject the null.
b. A Type II error is an error such that if the null is hypothesis is true, we reject the null.
c. A Type II error is an error such that if the null is hypothesis is not true, we do not reject the null.
d. A Type I error is an error such that if the null is hypothesis is not true, we do not reject the null.
e. a and c.

25. In country B, men's longevity are investigated and the following results are found: 1. Probability that a man lives at least 70 years is 77%; 2. Probability that a man lives at least 80 years is 48%. What is the conditional probability that a man's age is at least 80 years old given that he has just celebrated his 70th birthday?
a. $\frac{48}{77}$; b. 0.48; c. 0.77; d. 1; e. None of the above is correct.

備註	一、作答於試題上者，不予計分。 二、試題請隨卷繳交。

考試科目	微積分	系所別	國貿系	考試時間	2月5日(五)第4節

※Show all your work. Unjustified answers will receive no credit.

1. Evaluate the following integrals:

   (a) $\int_1^e \ln \sqrt[3]{x}\, dx$

   (b) $\int_0^1 e^{(x-e^x)} dx$

   (c) $\int_0^1 x^2 e^x dx$

   (d) $\int_0^2 \frac{10x^2-12}{x^4-5x^2-36} dx$ (20%)

2. Evaluate the following limits:

   (a) $\lim_{x\to 1} \frac{x^{2x}-1}{x-1}$ (b) $\lim_{n\to\infty} \sum_{i=1}^{n} \frac{\pi i}{n^2} \sin(\frac{\pi i^2}{n^2})$ (10%)

3. For the demand equation $x^2+4xp+4p=18000$, find $\frac{dp}{dx}$ at $p=11$ and $x=2$. (10%)

4. Use **Lagrange multipliers** (拉氏乘子法) to find the points on the sphere $x^2+y^2+z^2-2y=35$ closest to and farthest from the point $(1,-1,2)$. (10%)

5. Find the area between the graphs $y=2^x$ and $y=2^{-x}$ over $-1\le x\le 2$. (10%)

6. Determine convergence or divergence of the series $\sum_{n=0}^{\infty}(\sqrt{n^2+1}-n)$. (10%)

7. Let $f(x)=\sqrt[3]{x+1}$. Use **the definition of derivative** (no differentiation rule) to find $f'(x)$. (10%)

8. Use total differential (全微分) to approximate the value of $(1.01)^7\times(1.98)^4$. (10%)

9. Evaluate the iterated integral $\int_0^4 \int_{\sqrt{y}}^{\sqrt{8-y}} \frac{1}{(1+y)^2} dxdy$. (10%)

備註	一、作答於試題上者，不予計分。 二、試題請隨卷繳交。

考試科目	商事法	系所別	國貿系/國際經貿法組	考試時間	2月5日(五)第2節

本試題共兩大題，七小題。請斟酌各小題配分比重作答。需備異理由，兼從正、反立論作答。

一、A股份有限公司於107年4月20日成立，登記資本額為新台幣（以下同）2000萬元，甲持有之A公司股份數為68萬股並為A公司之董事長；乙為A公司股東與監察人，由於公司成立初始部分股東未符合公司法第29條資格，遂自行協議由乙暫任公司經理人。甲於擔任董事長期間發現乙同時擔任多家企業代表人，私下互為產品買賣，有違反競業禁止與忠實義務之虞，且所提供董事會之財務資料有蓄意漏載或不實紀錄。A公司遂於108年12月20日經股東會作成決議，委任會計人員丙查核業務部門之銷售資料，然乙對於丙之查帳請求置之不理，並於該次股東會擔任董事長後執意拒絕受查。今甲於卸任董事長後，仍具有股東及董事身分，依公司法第245條第1項規定聲請法院選派檢查人丁，檢查自107年公司設立後一直到乙擔任董事長任期屆滿後（離任期屆滿尚有2年）之一切會計帳簿、會計傳票及憑證，所有之進貨合約、銷貨訂單等業務帳目、財產文件及所有交易紀錄。

（一）查丁為會計師，並擔任B公司之獨立董事，但甲亦擔任B公司之董事，且為大股東，今甲基於前開事實情狀，聲請法院選派丁為檢查人，查核前述聲請檢查之內容，請問：法院應否准甲所請？（15%）

（二）另查乙於108年10月1日，在薩摩亞註冊登記設立C境外公司，乙為C公司股東，並製作假交易，使A公司對於C公司有應付帳款美金250萬元，疑似淘空A公司資產，請問：針對乙前開行為，依107年8月1日修正公布的公司法有何相應處置之規定？（15%）

參考法條：
公司法第245條第1項：「繼續六個月以上，持有已發行股份總數百分之一以上之股東，得檢附理由、事證及說明其必要性，聲請法院選派檢查人，於必要範圍內，檢查公司業務帳目、財產情形、特定事項、特定交易文件及紀錄。」

二、由台商出資在越南設立之A公司於104年5月間先後出售2批紡織胚紗與B公司（依中華人民共和國法設立），雙方約定貿易條件為CIF，由A公司與Y海運公司（依中華民國法設立）簽訂海上貨物運送契約，由A公司將系爭貨物裝載於3只貨櫃（含第一批848箱及第二批424箱），委由Y公司由越南胡志明港，以N輪於104年6月10日啟航運至中國大連港，並由Y公司簽發2紙載貨證券，A公司另與F產物保險公司（依越南法設立）簽訂海上運送保險契約，貨物買受人B公司已付款贖單自中國C銀行取得系爭載貨證券及系爭貨物所有權。詎系爭貨物於104年6月15日於運送途中在中國廈門港落水，經B公司委託公證公司查驗，證實系爭貨物已嚴重毀損，無殘餘價值，遂向F保險公司請領保險給付，並於領取保險金後簽署「權利轉讓書」與F保險公司，事後F保險公司於台北地方法院起訴向Y海運公司請求損害賠償，共計美金（以下同）11萬8千元（第一批7萬8千元，第二批4萬元，以商業發票價格加計運費、關稅等費用及利潤為基礎計

備註	一、作答於試題上者，不予計分。 二、試題請隨卷繳交。

考試科目	商事法	系所別	國貿系 國際經貿法組	考試時間	2月5日(五)第2節

算)。請根據下列事實，分別回答所示之法律問題：

(一) Y海運公司所簽發之載貨證券背面第30條記載：「除另有規定外，基於本件載貨證券所生之任何請求或爭議，應適用中華民國法。」請問：此條款之性質與效力為何？F保險公司基於此條款乃Y單方面事先印妥之定型化條款，未經雙方合意，認為應不生效力，是否有理由？(10%)

(二) 中國海事局調查報告指出事故原因：「1.N輪碰觸不明物導致船舶第4號右壓載艙破損進水，導致翻覆；2.船員在發現船舶左傾至船舶沈沒期間採取的處置措施失當。」另查Y海運公司提出由中國海事局於103年12月10日核發之「內河船舶檢驗報告書」及「內河船舶適航證書」，但未於出發前備置更新過之海圖，致誤闖限制水深之危險區域。復查N輪經碰觸不明物體，船長初步檢查後決定仍繼續航行，因事發於凌晨，經過2小時後先由輪機室值班船員發現船舶左傾，但未立即通報，之後才由未值班之另一船員發現船舶左傾呈報船長，為時已晚，再經過40分鐘後，船舶沈沒。請問：Y海運公司是否違反海商法第62條船舶適航性，與第63條貨物照管義務之規定？(15%)

(三) 承(二)所示情事，Y海運公司可否依海商法第69條規定主張運送人免責？(15%)

(四) 經查系爭載證券「包裝件數及貨物描述欄」記載：「據告稱：848箱」(重量：4萬公斤)、「據告稱：424箱」(重量：2萬公斤)，請問：Y海運公司如無法主張免責，進而主張單位責任限制，則依海商法第70條規定計算，應賠償多少金額(1特別提款權以1.4美元計算)？其計算結果是否對Y海運公司較為有利？(15%)

(五) Y海運公司認為海上運送保險契約係由A公司與F公司簽訂，A公司為保險契約之要保人與被保險人，B公司並無保險利益，而F保險公司竟對非被保險人給付保險金，主張F保險公司並無權利以其自己之名義提起損害賠償之請求，是否有理由？(15%)

參考法條：

海商法第70條第2項：「除貨物之性質及價值於裝載前，已經託運人聲明並註明於載貨證券者外，運送人或船舶所有人對於貨物之毀損滅失，其賠償責任，以每件特別提款權六六六・六七單位或每公斤特別提款權二單位計算所得之金額，兩者較高者為限。」第3項：「前項所稱件數，係指貨物託運之包裝單位。其以貨櫃、墊板或其他方式併裝運送者，應以載貨證券所載其內之包裝單位為件數。但載貨證券未經載明者，以併裝單位為件數。其使用之貨櫃係由託運人提供者，貨櫃本身得作為一件計算。」

備註	一、作答於試題上者，不予計分。 二、試題請隨卷繳交。

國立政治大學 110 學年度碩士班招生考試試題

考試科目	國際經貿法	系所別	國際經營與貿易學系 國際經貿法律組	考試時間	2月5日(五)第二節

一、為因應新冠肺炎，各國以及各藥廠均加緊疫苗的研發，為了確保疫苗可以為更多人所取得，印度等 WTO 會員於 TRIPS 理事會中提案，建議總理事會應就會員為了 COVID-19 的預防、控制、或治療，於一定的期間內豁免履行 TRIPS 協定下的某些義務，包括專利保護的義務；此外，也有會員打算就 COVIP-19 相關技術（例如疫苗、藥物、診斷等）實施強制授權。請問：（一）WTO 下有關豁免的規定為何？（5%）（二）TRIPS 協定針對強制授權的規定為何？（20%）

二、於 2020 年上半年，許多 WTO 會員為了因應新冠肺炎，針對各類醫療與個人防護用品紛紛採取出口管制措施，包括出口關稅、出口限制或出口配額。請問此類措施於 WTO 下的適法性？（20%）

三、WTO 規則中允許會員就其認為重要的公共政策訂定相關規範，但此類規範需具有必要性，請比較「必要性」以及相似的概念（not more trade-restrictive than necessary, not more trade-restrictive than required）於 GATT、TBT 協定、以及 SPS 協定下的異同。（20%）

四、WTO 上訴機構的最後一位成員任期於 2020 年 11 月 30 日到期，請問此一狀況對 WTO 的爭端解決機制帶來哪些影響？（10%）WTO 會員試圖採取哪些方式來面對 WTO 無上訴機構成員的困境？試舉出兩類因應方式(15%)。

備註	一、作答於試題上者，不予計分。 二、試題請隨卷繳交。

考試科目	國際經貿法	系所別	國際經營與貿易學系 國際經貿法組	考試時間	2月5日(五)第二節

五、請試譯以下條文（10%）

1. In examining the matter referred to in paragraph 5:

(i) in its assessment of the facts of the matter, the panel shall determine whether the authorities' establishment of the facts was proper and whether their evaluation of those facts was unbiased and objective. If the establishment of the facts was proper and the evaluation was unbiased and objective, even though the panel might have reached a different conclusion, the evaluation shall not be overturned;

(ii) the panel shall interpret the relevant provisions of the Agreement in accordance with customary rules of interpretation of public international law. Where the panel finds that a relevant provision of the Agreement admits of more than one permissible interpretation, the panel shall find the authorities' measure to be in conformity with the Agreement if it rests upon one of those permissible interpretations. (5%)

2. The function of panels is to assist the DSB in discharging its responsibilities under this Understanding and the covered agreements. Accordingly, a panel should make an objective assessment of the matter before it, including an objective assessment of the facts of the case and the applicability of and conformity with the relevant covered agreements, and make such other findings as will assist the DSB in making the recommendations or in giving the rulings provided for in the covered agreements. Panels should consult regularly with the parties to the dispute and give them adequate opportunity to develop a mutually satisfactory solution. (5%)

備註	一、作答於試題上者，不予計分。 二、試題請隨卷繳交。