

CITY UNIVERSITY OF HONG KONG

Module code & title : FB1400 Economics I
Session : Semester A 1996-1997
Time Allowed : Two hours

This paper has 13 pages (Including this page)

Module code & title : FB1400Economics I

1. This paper consists of 55 questions in one section.
 2. Answer ALL questions on the answer sheet provided.
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Materials, aids & instruments permitted to be used during examination

1. Approved calculator
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ANSWER ALL QUESTIONS ON THE ANSWER SHEET

1. Under a market mechanism the determination of what, how, and for whom is the result of
 - A. decisions by the wealthy.
 - B. decisions by the government.
 - C. the political process.
 - D. price adjustments.

2. A process of logical deduction links a model's
 - A. positive and normative statements.
 - B. scale to its complexity.
 - C. assumptions and implications.
 - D. abstraction to its reality.

3. The fact that man wants cannot be fully satisfied with current technology is
 - A. a fallacy of composition.
 - B. a problem of scarcity.
 - C. a problem of consumer surplus.
 - D. an externality problem.

4. When economists say that people are rational, it means that they
 - A. do not make errors of judgment.
 - B. make the best decision from their perspective.
 - C. act on complete information.
 - D. will not later regret any decision made now.

5. In an eight-hour day, Andy can produce either 24 loaves of bread or 8 pounds of butter.
In an eight-hour day, Bob can produce either 8 loaves of bread or 8 pounds of butter.
Andy and Bob
 - A. can gain from exchange if Andy specializes in butter production and Bob specializes in bread production.
 - B. can gain from exchange if Andy specializes in bread production and Bob specializes in butter production.
 - C. cannot gain from exchange because Bob does not have any comparative advantage.
 - D. can exchange, but only Bob will be able to gain.

6. If Agassi and Becker can both produce only goods X and Y and Becker does not have comparative advantage in the production of either X or Y, then we know that
 - A. Agassi has an absolute advantage in the production of X and Y.
 - B. Agassi and Becker have the same opportunity cost for X and Y.
 - C. Becker has a comparative advantage in the production of both X and Y.
 - D. the gains from trade will be small and only in one direction.

7. Which of the following correctly describes how price adjustment eliminates a shortage?
 - A. As the price rises, the quantity demanded decreases while the quantity supplied increases.
 - B. As the price rises, the quantity demanded increases while the quantity supplied decreases.
 - C. As the price falls, the quantity demanded decreases while the quantity supplied increases.
 - D. As the price falls, the quantity demanded increases while the quantity supplied decreases.

8. Given a decrease in the price of milk, which of the following is a possible cause?
- A decrease in the price of chocolate, a complement.
 - A scientific discovery that milk causes diabetes.
 - An increase in the income of the average household.
 - A drought that reduces nearly all supplies of feed grains.
9. A change in which of the following would alter buying plans for cars but would NOT shift the demand curve for cars?
- A 5 percent increase in household income.
 - A 10 percent decrease in the price of car insurance.
 - A 20 percent increase in the price of cars.
 - An increased preference for walking.

Use the following information to answer the next two questions. Suppose global climate changes result in a massive failure of potato crops and prices skyrocket. The equilibrium quantity of potatoes, rice, and hamburgers are observed to change as follows:

Region	Potato		Hamburger		Rice	
	Pre	Post	Pre	Post	Pre	Post
Region 1	100	30	50	20	3	50
Region 2	10	5	4	50	50	60

10. In Region 1 in the table above, potatoes and hamburgers are
- substitutes.
 - complements.
 - normal goods.
 - independent goods.
11. In the table above, potatoes and rice are
- substitutes in Region 1 and complements in Region 2.
 - complements in Region 1 and substitutes in Region 2.
 - complements in both regions.
 - substitutes in both regions.
12. Mark's income has just risen from \$500 per week to \$750 per week. As a result, he decides to double the number of concerts that he attends each week. Mark's demand for concerts
- is price elastic.
 - is price inelastic.
 - is income elastic.
 - is income inelastic.
13. Suppose there is an increase in the cost of fertilizer used in the production of lettuce. Then,
- if the price of lettuce rises, the demand for lettuce is elastic.
 - if the total revenue from sales of lettuce rises, the demand for lettuce is elastic.
 - if the total revenue from sales of lettuce falls, the demand for lettuce is elastic.
 - total revenue from sales of lettuce will increase since the price of lettuce must rise.

14. Demand is inelastic if
- A. large shifts of the supply curve cause only small changes in price.
 - B. the good in question has close substitutes.
 - C. a shift of the supply curve to the left raises total sales revenue.
 - D. the smaller angle between the vertical axis and the demand curve is less than 45%.
15. Suppose the government imposes a maximum legal price on an input, the effect on the price and the quantity of the final output
- A. the price increases and the quantity increases.
 - B. the price increases and the quantity decreases.
 - C. the price decreases and the quantity increases.
 - D. the price decreases and the quantity decreases.
16. Which of the followings is usually NOT associated with government price control in Hong Kong?
- A. kidney transplants.
 - B. blood for transfusion.
 - C. legal fee on property transactions.
 - D. wage of foreign domestic helper.
17. The price of food rises by 10% and disposal income increases by 5%. A man initially spending half his income on food would be
- A. indifference.
 - B. worse off but he will spend less on food.
 - C. better off but he will spend less on food.
 - D. worse off but he will spend more on food.
18. A consumer buys one unit of good when its price is \$2 and two units when its price is \$1. Hence he would rather pay \$X for two units of the good than go without it altogether. X cannot be
- A. 1.
 - B. 2.
 - C. 3.
 - D. 4.
19. Households choose their consumption bundles where the budget line touches the indifference curve. This implies that
- A. they spend all their income.
 - B. they buy some quantities of all goods.
 - C. the slope of the budget line equals to the slope of the indifference curve.
 - D. all of the above.

20. A rational doctor in a city where an earthquake injured thousands of people two days before. The medical supplies are enough to treat any injured but not enough for all, though new supplies will arrive tomorrow. The doctor must decide which victims get medical attention first. He should base on
- the seriousness of the injured.
 - how many injured had been killed during the earthquake.
 - how much medicine has the injured taken yesterday.
 - the total amount of medicine available.
21. Indifference curves cannot cross because of the assumption of
- non-negative consumer surplus
 - feasibility.
 - diminishing marginal utility.
 - transitivity: if A is indifferent to B and B is indifferent to C, then A is indifferent to C.
22. Economists claim that human being are rational because they believe that people
- are money maximisers.
 - learn from mistakes to act more consistently.
 - regret their decisions afterward.
 - calculate the marginal benefit and the marginal cost before making any decisions.
23. The price of one ounce of Diamond is much higher than the price of one gallon of water because
- the demand for diamond is much larger.
 - the income elasticity of diamond is higher than that of water.
 - the consumer surplus that people get from water exceeds the consumer surplus they get from diamonds.
 - the diamond producer restricts the supply of diamond.

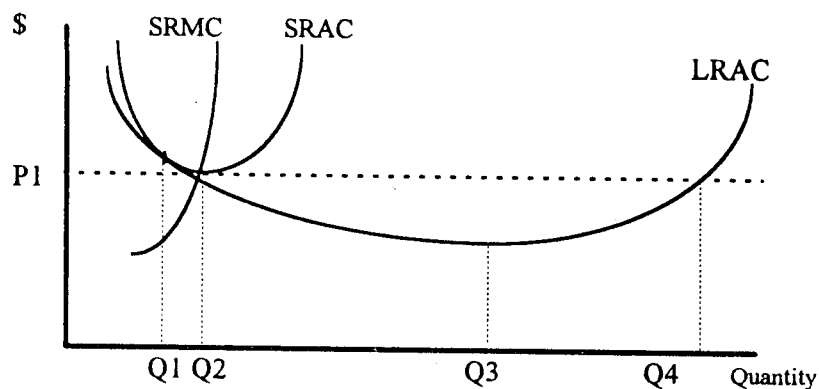


Figure 24.1

24. Figure 24.1 represents a perfectly competitive firm's short-run and long-run cost curves. Given the price of a unit of output is P_1 , in the long run the firm will want to:
- reduce its plant size in order to lower its average cost and make a bigger profit.
 - retain the same plant size in order to minimize its total profit.
 - expand its plant size in order to lower its average cost and make a bigger profit.
 - expand its plant size in order to lower its price to avoid taking a loss.

25. Producer surplus tends to be smaller when:
- supply is elastic.
 - demand is elastic.
 - supply is inelastic.
 - demand is inelastic.
26. There are 5000 identical firms in a competitive industry. Each firm's marginal revenue curve is:
- 1/5000 of the industry demand curve.
 - 1/5000 of the industry supply curve.
 - a horizontal line equals everywhere to its marginal cost curve.
 - a horizontal line at the market equilibrium price.

Sam's computer selling business is in a perfectly competitive market. Sam's production costs are as follows :

Table 27.1

<u>Quantity</u>	<u>Total cost (\$,000)</u>
0	10
1	25
2	35
3	43
4	53
5	65
6	78
7	92
8	110
9	130

27. From Table 27.1, which of the following describes Sam's supply curve?
- Sam's supply curve is his total cost curve.
 - Sam's supply curve is his marginal cost curve beginning with the quantity of 5 or 6 computers.
 - Sam's supply curve is his marginal cost curve beginning with the quantity of 4 computers.
 - Sam's supply curve is his average total cost curve.
28. From Table 27.1, if the market price of computer is \$10,000:
- Sam will shut down because the price is below his average variable cost at the profit maximizing level of output.
 - Sam will produce 2 computers.
 - Sam will advertise to boost the market price to a higher level.
 - Sam will produce 4 computers.
29. The government wants to tax the economic profits of firms. In the LONG RUN for firms in a perfectly competitive industry, a tax rate of t per unit of economic profit will yield revenues equals to :
- Marginal Revenue (MR) $\times t$.
 - zero.
 - Average Revenue (AR) $\times t$.
 - [Price per unit of output (P) - Average Cost (AC)] $\times t$.

30. Deadweight social loss resulting from keeping price of a good above its competitive equilibrium level will tend to be :
- A. smaller if both the supply and demand curves are very inelastic.
 - B. larger if producer surplus falls.
 - C. larger if the demand curve is vertical.
 - D. larger if both the supply and demand curves are very inelastic.
31. Which of the following statements is FALSE ?
- A. Average cost curve and marginal cost curve shift upward when input prices rise.
 - B. Marginal cost curve shifts upward when fixed cost increases.
 - C. Marginal cost curve always lies below average cost curve when marginal cost is less than average cost for that quantity of output.
 - D. None of the above.
32. In the SHORT-RUN, if there is an increase in industry demand in a perfectly competitive industry :
- A. additional firms will enter the industry and industry output will expand.
 - B. the market price will tend to rise, causing each individual firm to increase its output.
 - C. the demand curve facing each individual firm will shift upward, causing it to cut back output.
 - D. the market price will be unchanged, but each individual firm will tend to expand its output.
33. Which of the following statements concerning the long-run and short-run cost curves is FALSE?
- A. A short-run average cost curve can never fall below the long-run average cost curve.
 - B. The short-run average cost curve is tangent to the long-run average cost curve at the output level which the quantity of the fixed factor is optimal.
 - C. The long-run average cost curve encloses a whole family of short-run average cost curves.
 - D. Both the long-run and short-run average cost curves show the lowest cost of producing any output when all factors are variable.

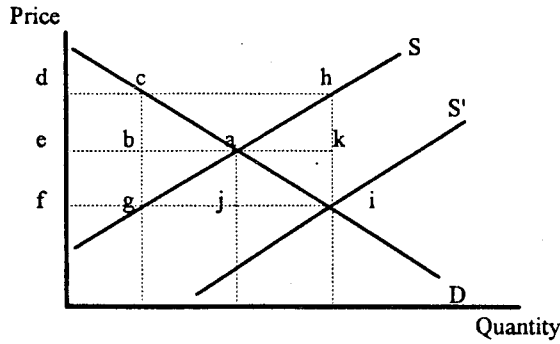


Figure 34.1

34. Figure 34.1 shows the effect of a subsidy on the production of wheat. The amount of subsidy is "hi". The effect is to shift the supply curve from S to S'. How much consumer surplus is gained ?
- eaif.
 - eagf.
 - dcae.
 - hai.
35. Firms in a perfectly competitive industry will stay in business even if they are making zero economic profit in the *long-run* because :
- firms are not aiming at profit-maximizing in the long-run.
 - firms in the industry cannot earn more by shifting to another business.
 - heavy investment made could have been wasted if the firms exit from the industry now.
 - firms will stay in the industry as long as *accounting profit* is positive.
36. As compare to a case of free-market equilibrium with an upward-sloping supply and downward sloping demand, an imposition of an *effective price ceiling* would *definitely* result in :
- the same output level of the goods as if free-market equilibrium.
 - a reduction in total surplus.
 - a shift in demand curve.
 - an excess supply.

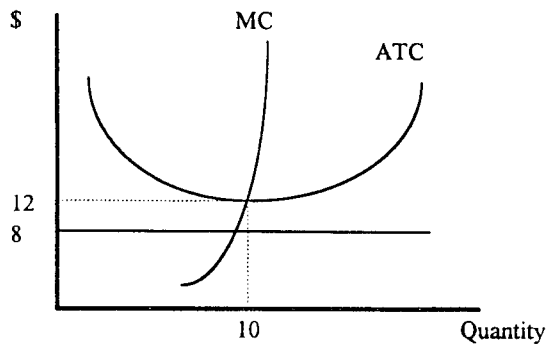


Figure 37.1

37. From Figure 37.1, which shows the curves necessary for a perfectly competitive firm to make its production decision in the short run. Given that the market price of the product is \$8, the firm in the short run will
- exit from the industry.
 - reduce its fixed cost.
 - raise the market price to \$12.
 - incur economic loss.
38. Which of the following statements about excess capacity is correct?
- If excess capacity in a monopolistically competitive industry were to be eliminated, consumers would lose the benefit of product diversity enjoyed in this market structure.
 - Government regulators would be acting in the consumers' best interests to force monopolistic competitors to raise output until average costs are minimized, even though some firms are forced out of the industry.
 - The economic losses associated with excess capacity far outweigh the benefits of product variety in the monopolistic competitive industry structure.
 - If excess capacity is eliminated, firms would produce less and total industry output would fall, thus leading to higher prices.
 - More than one correct answer.
39. For the monopolistic competitor:
- the firm's demand curve is horizontal since the firm is very small relative the whole market.
 - the firm's demand curve is a share of the industry demand and is more elastic than the industry demand curve.
 - the firm's demand curve is a share of the industry demand and is less elastic than the industry demand curve.
 - more than one correct answer.
40. A firm in a Cournot model attempts to maximize profits by:
- setting price equal to MC.
 - equating the MR based on the left over demand for its product and MC.
 - lowering its price to capture sales from rivals, thus dramatically increasing revenues despite a lower price.
 - agreeing to split the market into territories among the rival firms.
41. How does the Nash equilibrium in the Cournot model compare to that of the Bertrand model?
- Price is lower and output higher in the Cournot model than the Bertrand model.
 - Price is equal to MC in both models.
 - Price exceeds MC in both models.
 - Price is higher and output lower in the Cournot model than the Bertrand model.
 - More than one correct answer.
42. In the Cournot model, as the number of firms in the industry increases,
- the price approaches the monopoly level.
 - the price approaches MC.
 - collusion behavior becomes more likely.
 - the equilibrium becomes less stable.
 - More than one correct answer.

43. Given the following information for a pure monopoly:

Output	Total Costs	Price
0	\$250	\$
1	260	300
2	290	250
3	350	200
4	480	150
5	700	100

The monopolist should set its output at

- A. 1 unit
 - B. 2 units.
 - C. 3 units.
 - D. 4 units.
 - E. 5 units.
44. If the monopolist in Question 43 above could practice perfect price discrimination, its economic profits would be:
- A. \$420
 - B. \$650
 - C. \$740
 - D. \$1,000
 - E. \$1,400
45. At the output level where $MR=MC$ for a monopolist, price is above MC . Which of the following statements is true?
- A. monopolist can increase its producer surplus by slightly increase its output.
 - B. this output level is efficient since $MR=MC$.
 - C. the monopolist can increase its profits by increasing output slightly above the $MR=MC$ level since the marginal willingness to pay is greater than the MC of producing an additional output.
 - D. price is above average variable cost (AVC) since MC goes through the minimum point of AVC .
 - E. none of the above.
46. A natural monopoly occurs when :
- A. long run average costs curve is declining at the point where it intersects the market demand curve.
 - B. economies of scale is quickly exhausted.
 - C. long run average costs rise continuously as output is increased.
 - D. more than one correct answer.
47. A player's *best response* (or *best strategy*) is the strategy that:
- A. gives the player the incentive to change strategies.
 - B. is a dominant strategy when other players play their best strategies.
 - C. is a dominant strategy when other players play dominant strategies.
 - D. maximizes that player's payoff, given the strategies of other players.

48. A *Nash equilibrium* is a situation in which each player:
- A. can predict the outcome of the game.
 - B. uses a dominant strategy.
 - C. makes her best response.
 - D. has an incentive to change strategies.

Questions 49 to 51 are based on the following economic situation:

Quickbucks is a software developer writing personal finance software. Banana Computer Company is making a new type of personal computer, using an octagon chip. They must decide on which operating system to use, but neither will know what operating system the other is choosing. If both choose to use the Unique operating system, they'll make a lot of money, since people using Unique are big demanders of personal finance software; so Quickbucks will make \$240,000 a year, and Banana will make \$500,000. If both use the X-DOS operating system, the demand for personal finance software isn't as strong, so Quickbucks will make \$80,000 a year and Banana will make \$300,000. But if Quickbucks uses Unique and Banana uses X-DOS, Quickbucks will make only \$40,000, while Banana will only make \$200,000. If Banana uses Unique and Quickbucks uses X-DOS, Banana will make only \$100,000, and Quickbucks will make only \$40,000.⁵³

49. How many Nash equilibrium (or equilibria) is (are) there?
- A. 4
 - B. 2
 - C. 1
 - D. 0
50. Which of the following is a Nash equilibrium?
- A. Both use X-DOS.
 - B. Quickbucks uses Unique but Banana uses X-DOS.
 - C. Banana uses Unique but Quickbucks uses X-DOS.
 - D. There are no Nash equilibrium.
51. Under which equilibrium are both Quickbucks and Banana better off?
- A. Quickbucks uses Unique but Banana uses X-DOS.
 - B. Banana uses Unique but Quickbucks uses X-DOS.
 - C. Both use X-DOS.
 - D. Both use Unique.

Questions 52 to 55 are based on the following economic situation:

Bright Investment Company has a monopoly on disposable razors, but Slick Shaving is thinking of entering the business. If Slick enters the business, Bright could keep its price for razors high, or lower the price. If Slick enters and Bright keeps its price high Slick will earn \$2 million, while Bright will earn \$3 million. But if Slick enters and Bright cuts its price, Slick will lose \$1 million, while Bright will earn \$1 million. If Slick doesn't enter, Slick earns nothing and Bright earns \$6 million if it leaves its price high, and \$4 million if it lowers its price.

52. What type of game is described by this economic situation?
- A. a prisoner's dilemma
 - B. a repeated game

- C. a sequential game
 - D. a game of compromise
53. What is the subgame perfect Nash equilibrium in this situation, if there is one?
- A. Slick enters and Bright keeps its price high.
 - B. Slick enters and Bright lowers its price.
 - C. Slick doesn't enter.
 - D. There are no subgame perfect Nash equilibria.
54. Suppose Bright threatened Slick by saying, "if you enter, we'll cut our price, and you'll lose money." This is an example of:
- A. commitment.
 - B. a non-credible threat.
 - C. a sub-game threat.
 - D. a Nash equilibrium.
55. Is there a Nash equilibrium that is not subgame perfect?
- A. No, the only Nash equilibrium is subgame perfect.
 - B. Yes, the Nash equilibrium in which Slick enters and Bright charges a high price.
 - C. Yes, the Nash equilibrium in which Slick doesn't enter and Bright charges a low price.
 - D. Yes, the Nash equilibrium in which Slick enters and Bright carries out its threat to charge a low price.

THE END