

HS 101: Economics

Mid Term Examination

22nd February, 2023

Roll No.:

Name:

Department:

Time: 2 hours

Max. Marks: 35

Answer all the Questions:

- 1) Suppose there are two commodities with given prices. The consumer has well-behaved preferences and values both the goods. Her money income is also given.

a) In this case, how is the consumer's optimum consumption point determined?

Given by the point of tangency between budget line and indifference curve. Also check the diagram

b) In this regard, how can the consumer's demand curve be determined?

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[Diagrammatic representations are expected along with precise explanations].

[2.5+2.5=5 marks]

- 2) Name four factors that are kept constant while constructing the supply curve. **[2 marks]**

- **Input prices**
- **Technology**
- **Expectations**
- **Number of sellers**

- 3) What is substitution effect? **[1 mark]**

- The *substitution effect* is the change in consumption that results when a price change moves the consumer along an indifference curve to a point with a different marginal rate of substitution.
- 4) Consider a two commodity set-up with goods x and y which leads to indifference curves that are downward sloping and bowed inward. Suppose the price of good y falls. Assume that y is an inferior good. When will the individual demand curve for y be downward sloping? Explain in terms of Substitution effect and income effect.

[4 marks]

**According to Substitution Effect, the consumption of y should increase.
This is because y becomes relatively cheaper relative to x (1.5 marks)**

**According to Income Effect, the consumption of y should decrease.
This is because effective income rises owing to reduction in price of y. (1.5 marks)**

When Substitution Effect dominates Income Effect, the demand curve is downward sloping. (1 marks)

- 5) Mention two different reasons that explain why monopolies arise. [2 marks]
- Barriers to entry have three sources:
- Ownership of a key resource.
 - The government gives a single firm the exclusive right to produce some good.
 - Costs of production make a single producer more efficient than a large number of producers.
 - Governments may restrict entry by giving a single firm the exclusive right to sell a particular good in certain markets.
 - Patent and copyright laws are two important examples of how government creates a monopoly to serve the public interest.
- 6) Suppose there are two goods, and the consumer likes both of them. Suppose downward sloping indifference curves are generated that are bowed inward. Show that the indifference curves cannot intersect. [4 marks]

SEE SLIDE SHARED. An alternate proof is that there cannot be two marginal rates of substitutions at the supposed point of intersection, hence such an intersection is not possible.

- 7) A) Mention any four characteristics/outcomes of a competitive firm operating under perfect competition. [2 marks]
- There are many buyers and sellers in the market.
 - The goods offered by the various sellers are largely the same.
 - Firms can freely enter or exit the market in the long run.
 - The actions of any single buyer or seller in the market have a negligible impact on the market price.
 - Each buyer and seller takes the market price as given.

7) **B)** Define consumer surplus and producer surplus. [1+1=2 marks]

- **Consumer surplus** is the buyer's willingness to pay for a good minus the amount the buyer actually pays for it.
- **Producer surplus** is the amount a seller is paid for a good minus the seller's cost.

8) What is production possibilities frontier? [1 mark]

The **production possibilities frontier** is a graph that shows the combinations of output that the economy can possibly produce given the available factors of production and the available production technology.

9) What is a production function? [1 mark]

The **production function** shows the relationship between quantity of inputs used to make a good and the quantity of output of that good.

10) What is meant by diseconomies of scale? [1 mark]

- **Diseconomies of scale** refer to the property whereby long-run average total cost rises as the quantity of output increases.

Please note the following instructions with regard to questions 11 to 20.

- Each question carries 1 mark
- Corresponding to every question, note down on your answer booklet only the best alternative that is correct. If you write more than one alternative, it will be considered as a wrong answer.
- There is negative marking! For every wrong answer, 0.5 marks will be deducted.

11) For a monopolist, the following holds true at the profit-maximising point: **(a)**

- a) **$AR > MR = MC$** Correct
- b) $MR = MC > AR$
- c) $MR = MC = AR$

12) **Price discrimination** is the business practice of **(b)**

- a) selling the same good at the same prices to different customers

- b) **selling the same good at different prices to different customers** Correct
c) neither of the above

13) When two goods are perfect substitutes, the indifference curve is (a)

- a) **A straight line** Correct
b) Downward sloping and bowed inward
c) L-shaped

14) While calculating economic profits, the firm considers (c)

- a) Only implicit costs (also called opportunity costs) (b) Only explicit costs
(c) **Both explicit and implicit costs** Correct

15) For a perfectly competitive firm, (a)

- a) **Average Revenue is equal to Marginal Revenue** Correct
b) Average Revenue never equal to Marginal Revenue
c) The relation is not fixed

16) "The competitive firm's entire short-run supply curve is given by portion of the marginal-cost curve that lies above average total cost". This statement is (b)

- a) True (b) **False** Correct (c) Indeterminate

17) In the long run, the market supply under perfect competition is (b)

- a) Positively sloped
b) **Horizontal** Correct
c) Neither of the above

18) Suppose the law of diminishing marginal product holds. Then the Marginal Cost Curve is (a)

- a) **Rising** Correct (b) Falling (c) There is no connection

19) "When Price > Average Variable Cost, the firm under perfect competition makes positive economic profits". This statement is (c)

- a) Always True (b) Always False
(c) **Neither of the above** Correct

20) The efficient scale of the firm is achieved at the quantity such that (b)

- a) The minimum point of the Average Variable Cost Curve is achieved
- b) **The minimum point of the Average Total Cost Curve is achieved Correct**
- c) The minimum point of the Marginal Cost Curve is achieved