



Place an X on the correct choice

- 1) (A) ~~(B)~~ (C) (D) ✓
- 2) (A) ~~(B)~~ (C) ~~(D)~~ ✓
- 3) (A) (B) ~~(C)~~ (D) ✓
- 4) ~~(A)~~ (B) (C) (D) ✓
- 5) ~~(A)~~ ~~(B)~~ (C) (D) ✓

- 6) (A) ~~(B)~~ (C) (D) ✓
- 7) (A) (B) (C) ~~(D)~~ ✓
- 8) (A) ~~(B)~~ (C) (D) ✓
- 9) (A) ~~(B)~~ (C) (D) ✓
- 10) (A) ~~(B)~~ (C) (D) ✓

- 11) (A) (B) (C) ~~(D)~~ ✓
- 12) (A) ~~(B)~~ (C) (D) ✓
- 13) ~~(A)~~ (B) (C) (D) ✓
- 14) ~~(A)~~ (B) (C) (D) ✓

- 15) ~~(A)~~ (B) (C) (D) ✓
- 16) (A) ~~(B)~~ (C) (D) ✓
- 17) (A) ~~(B)~~ (C) (D) ✓
- 18) (A) (B) (C) ~~(D)~~ ✓
- 19) (A) (B) ~~(C)~~ (D) ✓
- 20) ~~(A)~~ (B) (C) (D) ✓

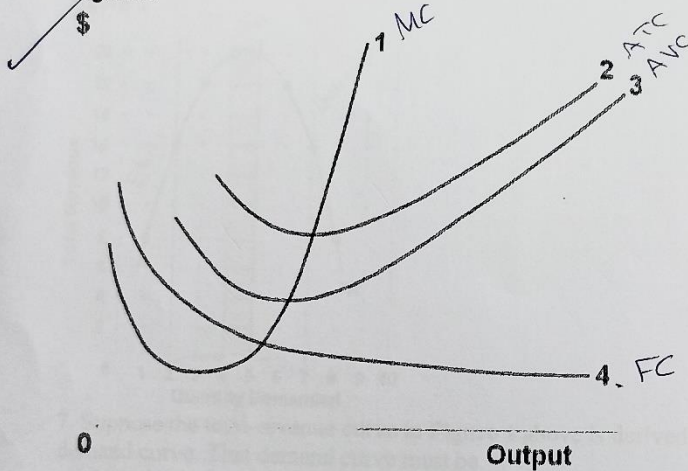
19/3 = 57
34
9/2



Part I 60%

1. The cross elasticity of demand for product X with respect to the price of product Y is -1.2 . It can be inferred (يمكن الاستنتاج) that X and Y are
- A. substitute products.
 - B. complementary products.
 - C. luxury products.
 - D. unrelated or independent products.
2. Utility maximization is done to achieve the following:
- A. derive (اشتقاق) consumer demand.
 - B. show income and substitution effect.
 - C. derive the income-expansion path.
 - D. all of the above.

Figure 2:



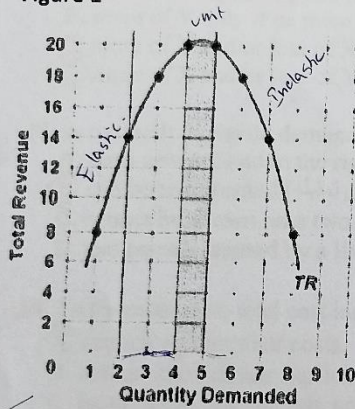
3. In the figure 2 above, curves 1, 2, 3, and 4 represent the
- A. ATC, MC, AFC, and AVC curves, respectively.
 - B. MC, AFC, AVC, and ATC curves, respectively.
 - C. MC, ATC, AVC, and AFC curves, respectively.
 - D. ATC, AVC, AFC, and MC curves, respectively.
4. In the immediate market period for a highly perishable crop (محصول سريع التلف) like tomatoes, the individual farmer's supply curve tends to be
- A. perfectly inelastic.
 - B. perfectly elastic.
 - C. Very elastic, but not perfectly.
 - D. downward-sloping.

5. The law of diminishing marginal utility explains why
- A. supply curves slope upward.
 - B. demand curves slope downward.
 - C. addicts (المدمنون) can never get enough drugs. ✗
 - D. people will only consume their favorite goods and not try new things.

6. "Essential" (ضروري) water is cheaper than "nonessential" (غير ضروري) diamonds (مجوهرات) because

- A. new industrial uses for diamonds have been discovered. ✗
- B. the supply of water is great relative to demand and the supply of diamonds is small relative to demand. ?
- C. although the total utility of diamonds is greater, their marginal utility is small.
- D. the supply of diamonds is great relative to demand and the supply of water is small relative to demand. ?

Figure 1



7. Suppose the total-revenue curve in Figure 1 above is derived from a particular linear demand curve. That demand curve must be

- A. inelastic for price declines that increase quantity demanded from 2 units to 3 units.
- B. elastic for price declines that increase quantity demanded from 5 units to 6 units.
- C. inelastic for price increases that reduce quantity demanded from 4 units to 3 units.
- D. elastic for price increases that reduce quantity demanded from 4 units to 3 units.

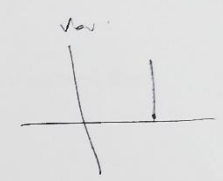
8. The elasticity of demand for a product is likely to be greater,

- A. if the product is a necessity (سلعة ضرورية), rather than a luxury good (سلعة مترفة).
- B. the greater the amount of time over which buyers adjust to a price change.
- C. the smaller the proportion of one's income spent on the product. ✗
- D. the smaller the number of substitute products available. ✗



9. At an output level of 50 units per day, a firm has average total costs of \$60 and average variable costs of \$35. Its total fixed costs are
- A. \$925.
B. \$1,250.
C. \$1,750.
D. \$3,000.
10. Marginal product of labor refers to the
- A. last unit of output produced by labor at the end of each period.
B. increase in output resulting from employing one more unit of labor.
C. total output divided by the number of labor employed.
D. smallest unit of the output produced by labor.
11. Suppose that MU_x/P_x exceeds MU_y/P_y . To maximize utility, the consumer who is spending all her money income should buy
- A. less of X only if its price rises.
B. more of Y only if its price rises.
C. more of Y and/or less of X.
D. more of X and/or less of Y.
12. A perfectly inelastic demand schedule
- A. rises upward and to the right but has a constant slope.
B. can be represented (يمكن تمثيله) by a line parallel to the vertical axis.
C. cannot be shown on a two-dimensional graph (لا (رسم ثنائي الابعاد)).
D. can be represented by a line parallel to the horizontal axis.
13. To the economist, total cost includes
- A. explicit and implicit costs.
B. neither implicit nor explicit costs.
C. implicit, but not explicit, costs.
D. explicit, but not implicit, costs.
14. The slope of the total product curve is -----
- A. marginal product.
B. average product.
C. marginal cost.
D. average fixed cost.
15. Utility refers to the
- A. satisfaction that a consumer derives from a good or service.
B. rate of decline in a product demand curve.
C. relative scarcity of a product.
D. pleasure (لذة) of a product.

$AVC = 35 = \frac{TVC}{Q}$
 $TFC = ?$
 $TVC = 1750 + ?$
 3000



$MP = \frac{\Delta TP}{\Delta L}$



16. Suppose we find that the price elasticity of demand for a product is -3.5 when its price is increased by 2 percent. We can conclude that quantity demanded
- A. increased by 7 percent.
 - B. decreased by 7 percent.
 - C. decreased by 9 percent.
 - D. decreased by 1.75 percent.
- $-3.5 = \frac{\Delta Q}{Q} \div \frac{\Delta P}{P}$

17. To maximize utility, a consumer should allocate (يخصص) money income so that the
- A. elasticity of demand on all products purchased is the same.
 - B. marginal utility obtained from the last dollar spent on each product is the same.
 - C. total utility derived from each product consumed is the same.
 - D. marginal utility of the last unit of each product consumed is the same.

18. Ahmad gets 15 utils (وحدة قياس المنفعة) from consuming 6 apples and 18 utils from consuming 7 apples; what is the arginal utility for the 7th apple?

- A. -5.
- B. +5.
- C. -10.
- D. +3.

$$MRU = \frac{\Delta TU}{\Delta Q} = \frac{18-15}{1} = 3$$

6	15
7	18

19. If a firm increases all of its inputs by 10 percent and its output increases by 10 percent, then
- A. it is encountering diseconomies of scale.
 - B. it is encountering economies of scale.
 - C. it is encountering constant returns to scale.
 - D. the marginal products of all inputs are falling.

20. In the long run,

- A. all costs are variable costs.
- B. all costs are fixed costs.
- C. variable costs equal fixed costs.
- D. fixed costs are greater than variable costs.



Part II 40%

1) [16 points] A consumer who buys two goods X and Y with prices $P_x=2$ and $P_y=1$, the consumers income is \$12/month. Her consumption schedule is given below:

$$MU = \frac{\Delta TU}{\Delta Q}$$

Q(x)	Mux	Mux/Px	MUy	MUy/Py
0	—	—	—	—
1	10	5	8	8
2	8	4	7	7
3	6	3	6	6
4	4	2	5	5
5	3	1.5	4	4
6	2	1	3	3

a) [7 points] Calculate the MU and the MU per dollar for each good in the in the table above, show the formulas for your calculations below

$$MU = \frac{\Delta TU}{\Delta Q}$$

$$10 = \frac{\Delta TU}{1} \Rightarrow \Delta TU = 10$$

b) [3 points] What are the equilibrium conditions that must be satisfied to get maximum utility

Group	Income	When the consumer buys <u>3</u> Quantities of product X, and <u>6</u> Quantities of product Y.
A	$Q_x=1, Q_y=4, P_x=2, P_y=1$	$2 + 4 = 6$
B	$Q_x=2, Q_y=5, P_x=2, P_y=1$	$4 + 5 = 9$
C	$Q_x=3, Q_y=6, P_x=2, P_y=1$	$6 + 6 = 12$ → This Group

c) [3 points] How many units of X and Y will she purchase to maximize utility.

3 units of X, 6 units of Y.

d) [3 points] What is the Interpretation (التفسير) of (MU_x/MU_y)

While the Quantity is Increasing, the (MU_x/MU_y) is decreasing, that's mean they will be equal (Their MU) at 3rd Quantity.

Q	MU_x/MU_y
0	—
1	1.25
2	1.14
3	1
4	0.8
5	0.75
6	0.66



2) [15 points] A firm has the following production relation

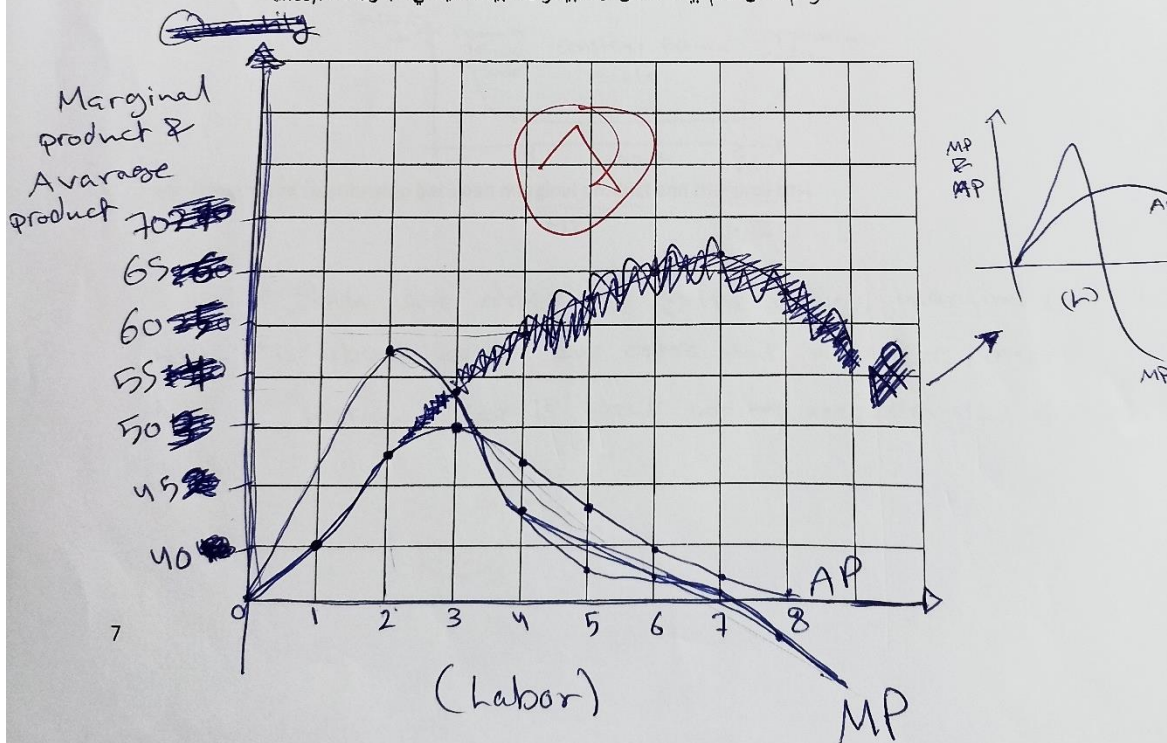
L	Q	MP _L	AP _L	MP
0	0	0	0	-
1	40	40	40	40
2	97	57	48.5	57
3	148	51	49.3	51
4	190	42	47.5	42
5	217	27	43.4	27
6	235	18	39.2	18
7	244	9	34.85	9
8	241	-3	30.125	-3

a) [8 points] Calculate the Average and marginal product of labor in the table above, write down the formulas you use in the space provided below.

$$MP = \frac{\Delta Q}{\Delta L}, \quad AP_L = \frac{Q}{L}$$

$$\frac{97-40}{1}, \frac{148-97}{1}, \frac{190-148}{1}, \frac{217-190}{2}, \frac{235-217}{2}, \frac{244-235}{1}, \frac{241-244}{1}$$

b) [7 points] Plot (ارسم) AP and MP of labor in the space below, (the figure does not have to be drawn to scale, just illustrate the general shape for the data above, Label your axes). ارسم الشكل العام لبيانات معدل الانتاجية والانتاجية الحدية في الجدول ادناه.





Q3) [9 points] Answer the questions below in the space provided;

a) What is the difference between accounting profit and economic profit

* Accounting profit = Total Revenue - Explicit Cost.

* Economic profit = Total Revenue - Economic Cost.

(Explicit cost + Implicit Cost)

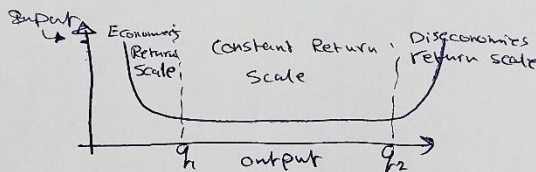
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b) What is the difference between diminishing returns and returns to scale

* Diminishing Return \Rightarrow More labors will lead to more production until the firm will be (prosj) and that's lead to reduce the production.

2

* Return to Scale \Rightarrow it is about Economies and Diseconomies Scale



c) What is the relationship between marginal product and marginal cost

MP MR

* Both are describe extra units, marginal product is about adding one extra unit of labors, but margined cost is about adding one extra unit of Quant

1