



TENTAMEN / EXAMINATION



12307683

Fylls i av **student** / To be completed by the **student**

Skriv anonymiseringskoden på samtliga svarsblad / Write your anonymity code on each sheet		Anonymiseringskod / Anonymity code	
N E G B 0 1 - 0 0 2 0 - W L N			
Provbenämning / Exam name			Oanmäld
Mikroekonomi			
Kurskod / Course code	Modul / Module	Tentamensdatum / Examination date	
N E G B 0 1	2 0 0 0	2 0 2 2 - 0 3 - 2 2	
Jag har tagit del av regler som gäller vid tentamen / I have read the current rules for examinations		<input checked="" type="checkbox"/> Ja / Yes	Antal inlämnade blad med anonymiseringskod / Number of sheets with anonymity code
			1 4

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Kontroll av legitimation / Identification checked	<input checked="" type="checkbox"/> Ja / Yes	Härmed intygas att kontroller utförts / This is to certify that the checks have been carried out
Kontroll av inlämnade blad / Answer sheets checked	<input checked="" type="checkbox"/> Ja / Yes	
Inlämningstid / Time of submission	1 6 : 5 7	Tydlig sign. / Signature

Fylls i av **lärare** / To be completed by the **examiner**

Bedömning av uppgifter / Questions attempted										
1	2	3	4	5	6	7	8	9	10	~
4	2	3,5	3,5							
11	12	13	14	15	16	17	18	19	20	~
21	22	23	24	25	26	27	28	29	30	~
Totalt antal poäng / Total points				Examin. lärare / Kursansvarig signatur / Signature of the examiner						
12										
Betyg / Grade				Namnförtydligande / Clarification of the signature						
9										

12307683



Försättsbladet ska alltid lämnas in även om ingen uppgift behandlats /
Examination should always be submitted even if no questions are answered

NEGB01/NEGB25

2022-03-22

Dinky Daruvala

Microeconomics

Part 1,

Q 1-4

Anonymity code: NEGB01-0020-WLN

Please, write your anonymity code on each answer

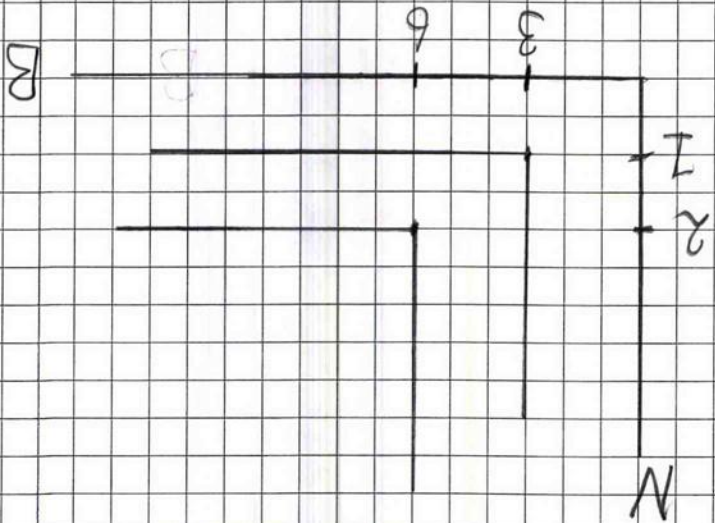
sheet

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NE6B01-C080-VLN

Löpande sidnr
Consecutive no.: 2
Uppgift nr /
Question no.: 1
Poäng / Points
awarded: 4
Lärarens
anteckning
Examiner's remarks:



b) $Y(B, N) = \min\{B, 3N\}$

c) $m = B \cdot P_B + 3N \cdot P_N$

$B = \frac{P_B + 3NP_N}{m}$
 $N = \frac{B \cdot P_B + P_N}{3m}$

1.5
1.5

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NEC-BO1-CO20-WLN

2) $U(w) = \sqrt{w}$

a) A

Cold and Rainy: $0,25 \cdot \sqrt{6400} = 20$

Normal: $0,5 \cdot \sqrt{10000} = 50$

Dry: $0,25 \cdot \sqrt{6400} = 20$

Total: $20 + 50 + 20 = 90$ (for A)

B

Cold and Rainy: $0,25 \cdot \sqrt{3600} = 15$

Normal: $0,5 \cdot \sqrt{14400} = 60$

Dry: $0,25 \cdot \sqrt{2500} = 12,5$

Total: $15 + 60 + 12,5 = 87,5$ (for B)

Answer: $90 > 87,5$ → She will choose to grow crop A because her utility is bigger.

Uppgift nr /
Question no: 2
Poäng / Points
awarded:
Lärares
anteckning
Examiner's remarks:

3

Löpande sidnr
Consecutive no.:

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NE6B01-CO20-WLN

Löpande sidnr
Consecutive no.: 4

Uppgift nr /
Question no.: 2

Poäng / Points
awarded: 2

Lärarens
anteckning
Examiner's remarks:

b) $0,25 \cdot \sqrt{w} + 0,5 \cdot \sqrt{w} + 0,25 \cdot \sqrt{w} = 90$

$0,25 w^{0,5} + 0,5 w^{0,5} + 0,25 w^{0,5} = 90$

$w^{0,5} = 90$

$w = \sqrt{8100}$

Answer: The minimum amount of money she is willing to rent out the land for rather than growing her choice of crop A is 8100.

Next page

$$\frac{0,75k - 0,25L}{0,25k - 0,75L} = \frac{1}{3}$$

c) $\frac{MPK}{MPK} = \frac{MPK}{MPK}$

MPK = $0,75k - 0,25L$ (marginal product of K)

$\frac{dQ}{dK} = 0,75k - 0,25L$

MPL = $0,25k - 0,75L$ (marginal product of L)

$\frac{dQ}{dL} = 0,25k - 0,75L$

b) $Y = f(K, L) = k^{0,75}L^{0,25}$

because $0,75 + 0,25 = 1$ meaning CRS

$Y = f(K, L) = k^{0,75}L^{0,25}$ is CRS, R

a) The returns to scale for function

Löpande sidnr	5
Consecutive no.:	5
Uppgift nr /	3
Question no.:	3
Poäng / Points	awarded:
Lärens anteckning	Examiner's remarks:

NE6B01-0020-WLN

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NE6B02-CO20-WLN

Löpande sidnr
Consecutive no.: 6

Uppgift nr /
Question no.: 3

Poäng / Points
awarded:

Lärarens
anteckning
Examiner's remarks:

$$\frac{0,75k \quad 0,25L}{0,25k \quad 0,75L} = \frac{1}{3}$$

- $k \cdot 0,25 = k^{-1} = \frac{1}{k}$
- $L \cdot 0,25 = L^{-1} = \frac{1}{L}$
- $\frac{0,75}{0,25} = 3$

Ansvar: $\frac{3L}{k} = \frac{1}{3}$

Samma som --

$$\frac{3L}{k} = 3$$

$$\frac{3L}{k} = 3 \quad (k)$$

$$3L = 3k \quad (\cdot 3)$$

$$L = k$$

Ansvar: $k = 100$ and $L = 100$ minimizes

$$k = 100 \quad L = 100$$

the cost of producing 100 units of y.

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ap.



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NE6B02-020-WN

Löpande sidnr
Consecutive no:

7

Uppgift nr /
Question no: 3

Poäng / Points
awarded:

Lärarens
anteckning
Examiner's remarks:

$$K = \frac{0,75 \cdot 100}{3} = \underline{\underline{25}}$$

$$L = \frac{1}{0,25 \cdot 100} = \underline{\underline{25}}$$

Answer: The lowest cost of producing

100 units of K is 25 and

the lowest cost of producing 100

units of L is also 25.

K and L

are inputs

that are

used to

produce

Y-a

product.

Grid area for writing answers.

$$C(V) = 3K_{0.75} L_{0.25}$$

$$W_K = 3 \quad W_L = 1$$

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NEGB01-0020-WLN

Löpande sidnr
Consecutive no.: 8

Uppgift nr /
Question no.: 3

Poäng / Points
awarded:

Lärarens
anteckning
Examiner's remarks:

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NE6B01-C020-W1N

Löpande sidnr
Consecutive no.: 9

Uppgift nr /
Question no.: 4

Poäng / Points
awarded: 3,5

Lärarens
anteckning
Examiner's remarks:

a) Guide Burger has a dominant strategy and it is "low price". The daily profit will always be higher if they chose a low price, regardless of what Kebab special choss. $750 > 400$ $1200 > 1000$ dominant strategy is therefore low... Kebab special does not have a dominant strategy. Neither low or high price is dominant for them

b) The pure Nash-equilibrium is in the top-right corner (1200, 800). This means that QB chooses low price and gets 1200 in daily profit. KS chooses high price and gets 800 in daily profit.

c) $L=low$ $H=high$

QB

KS

1200, 800

750, 1000

400, 1100

1200, 1000

750, 1100

400, 1200

1200, 1100

The outcome will be 1200 daily profit for QB and 800 daily profit for KS if they do not co-operate.

A decision mark means that the choices are made by both simultaneously

you may not do this

0,5

0,5

0,5

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NE6B07 - 0020 - WLN

Löpande sidnr
Consecutive no.: 18

Uppgift nr /
Question no.: 4

Poäng / Points
awarded: 4

Lärens
anteckning
Examiner's remarks:

d) With the 200-reward the new matrix will look like: L=low H=high

	KS	
QB	L	950, 900 1200, 800
	H	400, 1300 1000, 1100

This means that there will be a

New Nash-equilibrium in the top-left

corner (950, 900). This will only be

a benefit for KS if comparing to the previous Nash-equilibrium because $950 > 800$.

It will be opposite for QB, because

$950 < 1200$. It is not a benefit for QB.

The comment from the CEO is therefore

partially true. It was a benefit for

KS but not for QB.

Handwritten notes: "Handwritten", "statement", "should only", "work KS"

Handwritten scribble

NEGB01/NEGB25
2022-03-22

Klaas Staal
Microeconomics
Part 2,
Q 5-6

Anonymity code: *NEGB01-0020-WLN*

Please, write your anonymity code on each answer sheet

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NE6B01-0030-WLN

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Löpande sidnr
Consecutive no.: 12

Uppgift nr /
Question no.: 5

Poäng / Points
awarded:

Lärarens
anteckning

Examiners remarks:

5) The original budget constraint touches the first indifference curve from the left side (at X-point). Before the price-change our consumer chooses to consume at point X. When price of X decreases he can afford more of good X, meaning that the new budget constraint will be less steep. However it will still begin at the same spot m/p_x (the black line). This new budget constraint touches a new indifference curve (the one to the right). At this point, with the new budget constraint, our consumer chooses to consume at point Z.

To find the substitution-effect we need to make our consumer feel "more poor". Therefore we will have the new budget constraint (the slope remains the same). We then get a new line m/p_x that touches a new indifference curve at point Y. This means that the substitution-effect is between X and Y. The income effect is Y to Z. The total change in demand due to the price decrease is X to Z.

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Löpande sidnr
 Consecutive no: 13

Uppgift nr /
 Question no: 6

Poäng / Points
 awarded:

Lärarens
 anteckning
 Examiner's remarks:

a) Good: There is a perfect balance
 Bad: One can't be better off
 without hurting the other.

b) The value of excess demand must
 then also be equal to zero in the
 remaining two markets.

c) - Free-rider-problem
 - Hold-out problem

d) There are two Nash-equilibria. One
 in the top-left corner $(20, 25)$ and one
 in the bottom-right corner $(0, 0)$. This
 is Pareto efficient because there is
 a competitive equilibrium.

question e and f are on next
 page →

d) The Nash Equilibriums are to be found in the top-left corner and the bottom-right corner. As the table shows there are two Nash-Equilibriums $(0, 25)$ and $(0, 0)$. This means that both players A and B will both either "contribute" or "don't contribute" to the provision of a public good.

The pay-off for player B will either be 25 \$ or 0 \$, depending on the outcome.

e) The pay-off for player A will either be 20 \$ or 0 \$, depending on the outcome.

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Löpande sidnr
 Consecutive no.: 14

Uppgift nr /
 Question no.: 6

Poäng / Points
 awarded:

Lärares
 anteckning

Examiners remarks: