



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 4 6 - F F C | |
| Provbenämning / Exam name | | | Danmald |
| Mikroekonomi | | | |
| Kurskod / Course code | Modul / Module | Tentamensdatum / Examination date | |
| N E G B 0 1 | 2 0 0 0 | 2 0 2 3 - 0 3 - 2 1 | |
| Jag har tagit del av regler som gäller vid tentamen / I have read the current rules for examinations | | Antal inlämnade blad med anonymiseringskod / Number of sheets with anonymity code | |
| <input checked="" type="checkbox"/> Ja / Yes | | 1 2 | |

Fylls i av **skrivvakt** / To be completed by the **invigilator**

| | | |
|--|--|---|
| 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 type="checkbox"/> Ja / Yes | |
| Inlämningstid / Time of submission | 1 6 : 2 2 | Tydlig sign. / Signature DN |

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 | ~ |
| 25 | 175 | 375 | 3 | | | | | | | |
| 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 | | | | | | |
| 19.5 | | | | | | | | | | |
| Betyg / Grade | | | | Namnförtydligande / Clarification of the signature | | | | | | |
| VG | | | | | | | | | | |

12307683



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

NEGB01/NEGB25
2023-03-21

Dinky Daruvala
Microeconomics
Part 1,
Q 1-4

Anonymous examination code: NEGB01-0046-FFC

**Please, write your anonymous examination code on
each answer sheet**



Ange anonymitetskod / Write your anonymity code
 (Vid icke anonym tentamen ange kurskod + namn + personnummer)
 (For non-anonymous exams write the course code + name + civic registration number)

NEGB01 - 0046 - FFC

Löpande sidnr
 Consecutive no:

1

Skriv ej i detta område
 Leave this area blank

Uppgift nr /
 Question no:

1

Poäng / Points
 awarded:

2,5

Lärarens
 anteckning
 Examiner's remarks:

a) svar I^S called Cobb Douglas. $R. of$

$$x_1 = \frac{m \cdot \frac{1}{4}}{\frac{1}{4} \cdot x_2}$$

$$x_2 = \frac{m \cdot \frac{3}{4}}{\frac{3}{4} \cdot x_1}$$

— demand is not a function of quantities

b) svar He will spend 75% ($\frac{3}{4}$) of m on movies. R

It won't change if his income increases, he will still buy in same ratio/ proportions.

c) svar NO. $x_1^{\frac{1}{2}} \cdot x_2^{\frac{1}{2}}$

He will spend half of his income on movies and other half on books. 50%.

d) svar NO, their indifference curves do not have the same slope therefore not the same MRS.



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NEGB02 - 0046 - FFC

Löpande sidnr
Consecutive no:

2

Uppgift nr /
Question no:

2

Poäng / Points
awarded:

Lärarens
anteckning
Examiner's remarks:

0,5

a) svar a must be lower than 1.

Utility function of risk averse



← This function requires exponent to be lower than 1.

and $a > 0$

b) svar.

$$\frac{1}{3} \cdot \sqrt{800} + \frac{1}{3} \cdot \sqrt{1100} + \frac{1}{3} \cdot \sqrt{200}$$

$$\approx \frac{1}{3} \cdot 28,28 + \frac{1}{3} \cdot 33,17 + \frac{1}{3} \cdot 14,14$$

$$\approx 9,33 + 10,95 + 4,67 \approx 24,95$$

Expected utility $\approx 24,95$ R

Expected profit ≈ 693 R

$$800 \cdot \frac{1}{3} + 1100 \cdot \frac{1}{3} + 200 \cdot \frac{1}{3}$$

$$\approx 264 + 363 + 66 = 693$$

Jag min
har min
avrundat till
två decimaler
Jag hoppas
det

Skriv ej i detta område
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NEG301-0046-FFC

Löpande sidnr
 Consecutive no:

3

Uppgift nr /
 Question no:
 2

Poäng / Points
 awarded:

1,75

Lärarens
 anteckning
 Examiner's remarks:

c) svar

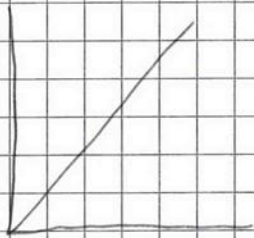
$$\frac{1}{3} \cdot \sqrt{m} + \frac{1}{3} \sqrt{m} + \frac{1}{3} \cdot \sqrt{m} = 24,95$$

$$\sqrt{m} = 24,95$$

$$m = 622,5025$$

minst 622,5025. D.V.'s har stora
 på betalt så det täcker/nöjer
 hans expected utility.

d) svar Yes, a risk neutral
 don't really care whether they take
 a bet/risk or not.



risk neutral
 utility function.

So she won't mind if the
 range is between answer in
 question c, D.V.'s runt 622.

0,25

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NEGB02-0046-FFC

Löpande sidnr
 Consecutive no:

4

Uppgift nr /
 Question no:

3

Poäng / Points
 awarded:

3,75

Lärares
 anteckning
 Examiner's remarks:

Skriv ej i detta område
 Leave this area blank

a) Svar

$$YT = (y_1 + y_2)$$

$$P = 400 - YT$$

$$P = 400 - y_1 - y_2$$

$$(400 - y_1 - y_2) y_2 - 25 y_2$$

$$400 y_2 - y_1 y_2 - y_2^2 - 25 y_2$$

$$400 - y_1 - 2 y_2 - 25 = 0$$

$$375 - y_1 = 2 y_2$$

Firma

$$y_2 = 187,5 - 0,5 y_1$$

2. reaktions

funktion

$$(400 - y_1 - y_2) y_1 - 25 y_1$$

$$400 y_1 - y_1^2 - y_2 y_1 - 25 y_1$$

$$400 - 2 y_1 - y_2 - 25 = 0$$

$$375 - y_2 = 2 y_1$$

Firma

$$y_1 = 187,5 - 0,5 y_2$$

1 reaktions

funktion



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NEGB02-0046-FFC

Löpande sidnr
Consecutive no:

5

Uppgift nr /
Question no:

3

Poäng / Points
awarded:

Lärarens
anteckning
Examiner's remarks:

Skriv ej i detta område
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b) SVAR Each firm has a reaction to the other firms production. And by putting in their reaction-functions in to their profit functions they will find best/optimal price, quantity and profit. [?]
In other words, it's a firms reaction to the other firm in output.

c) SVAR.

$$y_2 = 187,5 - 0,5y_1$$

$$y_1 = 187,5 - 0,5y_2$$

$$y_1 = 187,5 - (93,75 - 0,25y_1)$$

$$y_1 = 187,5 - 93,75 + 0,25y_1$$

$$y_1 = 93,75 + 0,25y_1$$

$$0,75y_1 = 93,75$$

$$y_1 = \frac{93,75}{\frac{1}{0,75}} = \frac{93,75}{\frac{4}{3}}$$

$$y_1 = 125$$

R



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NEGB01-0046-FFC

Löpande sidnr
Consecutive no:

6

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$$y_1 = 125$$

$$y_2 = 187,5 - 0,5 y_1$$

$$y_1 = 187,5 - 0,5 y_2$$

$$y_2 = 187,5 - 0,5 \cdot 125$$

$$y_2 = 187,5 - 62,5$$

$$y_2 = 125$$

Så vi har vår Cournot-nash
equilibrium.

$$P = 400 - 125 - 125$$

$$P = 150$$

$$Q = 125$$

$$\text{Profit} = 15 \cdot 625$$

$$\text{Profit} = 150 \cdot 125 - 25 \cdot 125$$

$$18750 - 3125 = 15625$$

R

Uppgift nr /
Question no:

3

Poäng / Points
awarded:

Lärens
anteckning
Examiner's remarks:



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NEGB02-0046-FFC

Löpande sidnr
 Consecutive no:

7

Uppgift nr /
 Question no:

4

Poäng / Points
 awarded:

3

Lärarens
 anteckning
 Examiner's remarks:

Skriv ej i detta område
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$$0 < c < 1$$

a) svar

C kan vara 0,5 för

B att förenkla

NO effekt

Effekt

NO effekt

0, 0 *

0, -0,5

A

Effekt

-0,5, 0

0,5, 0,5 *

Det finns inga dominant strategy.

b) svar

0,5, 0,5 och 0,0

och 0,0

d.v.s (0,0) och

(1-c, 1-c) är

nash equilibrium. Finns inte direkt en
 clear outcome.

c) svar

NO effekt

A

Effekt

A = Leader

B = Follower

NO effekt

effekt B

NO effekt

effekt

0,0

0, -0,5

-0,5, 0

0,5, 0,5

A kommer välja

Effekt för

att

0,5 > 0

och

da

kommer B

välja

Effekt eftersom

0,5 > 0

0,5 > 0



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Consecutive no:

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Uppgift nr /
Question no:

Poäng / Points
awarded:

Lärarens
anteckning
Examiner's remarks:

NEGB01/NEGB25
2023-03-21

Klaas Staal
Microeconomics
Part 2,
Q 5-6

Anonymous examination code: NEGB01-0046-FFC

**Please, write your anonymous examination code on
each answer sheet**

| | Points Klaas | | | | | | Total | |
|-----------------|--------------|----|----|----|----|----|-------|-----|
| | 5 | 6a | 6b | 6c | 6d | 6e | | 6f |
| NEGB01-0046-FFC | 2,5 | 1 | 1 | 1 | 1 | 1 | 1 | 8,5 |



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Löpande sidnr
Consecutive no:

8

Uppgift nr /
Question no:

5

Poäng / Points
awarded:

Lärarens
anteckning
Examiner's remarks:

svart we first have our original budget constraint passing through X . X is our optimal bundle.

Then price of X_1 decreases so we pivot our budget constraint-line so its parallel to the black line, but still passing X . we know see that it passes through Y , and why is our new optimal bundle. so the substitution effect is from $X - Y$ for good X_1 .

When price of good 1 decreases we can afford more of it, as if our income increases. so our new budget constraint line (income line) reaches "further" out passing Z , making Z our new optimal-bundle.

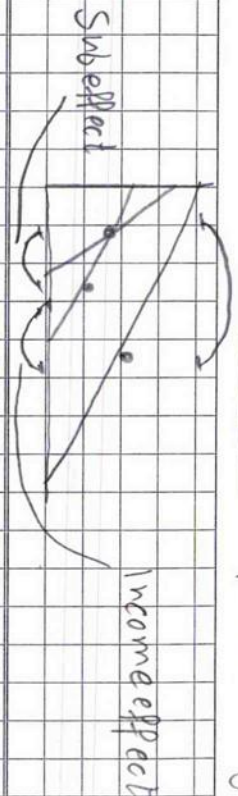
so income-effect is from $Z - Y$.

This resulting in our total change in demand going from $X - Z$, for good X_1

$$X - Y = \text{substitution effect}$$

$$Z - Y = \text{income effect}$$

$$X - Z = \text{total change in demand}$$



område

Skriv ej i detta område
Leave this area blank



område

Skriv ej i detta område
 Leave this area blank

a) svar we don't have any information about the consumers preferences, so we can't tell

b) svar He is willing to give up 2 fishes for 2 coconuts. And if he gives up 2 fishes he can get 2 more coconuts. So nothing really he could do to increase utility

c) svar 5 streetlights

$$\frac{8x}{10} = 4$$

$$8x = 40$$

$$x = 5$$

d) svar

$$\frac{w}{p_1} = \frac{2(w-r)}{p_1}$$

$$p_1 w = 2 p_1 w - 2 p_1 r$$

$$2 p_1 r = p_1 w$$

$$2r = w$$

$$r = \frac{w}{2}$$



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Löpande sidnr
 Consecutive no:

10

öppna
 Skriv ej i detta område
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e) svar R > C

Uppgift nr /
 Question no:

6

Poäng / Points
 awarded:

f) svar That there will also be an
 excess supply in the market
 for good 2.

Lärarens
 anteckning
 Examiner's remarks: