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*: NEGA10 - 0003 - ZNY

Provbenämning / *Exam name*: Skriftlig tentamen mikroekonomi

Oanmäld:

Kurskod / *Course code*: NEGA10

Modul / *Module*: 1000

Tentamensdatum / *Examination date*: 2020-10-21

Jag har tagit del av regler som gäller vid tentamen / *I have read the current rules for examinations*: ☒ Ja / *Yes*

Antal inlämnade blad med anonymiseringskod / *Number of sheets with anonymity code*: 10

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

Kontroll av legitimation / *Identification checked*: ☒ Ja / Yes

Kontroll av inlämnade blad / *Answer sheets checked*: ☒ Ja / Yes

Inlämningstid / *Time of submission*: 18:00

Härmed intygas att kontroller utförts / *This is to certify that the checks have been carried out*

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	10	11				10				

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*: 35

Examin. lärare / Kursansvarig signatur / *Signature of the examiner*

Betyg / *Grade*: VG

Namnförtydligande / *Clarification of the signature*

12307683

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

Utskriven 2020-10-15 kl. 08:34:19

Anonymitetskod NEGA16-0003-ZNY

1

FLERVALSFRÅGOR **(OBS! Endast 1 svar på varje fråga)**

FRÅGA	RINGA IN RÄTT SVAR			
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

20p

10p

Fel svar ger ej poängavdrag.

No points will be deducted for the wrong answer

Häftområde

Skriv ej i detta område
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NEGA10-0003-ZNY

Löpande sidnr
Consecutive no:
2

Uppgift nr /
Question no:
1

Poäng / *Points awarded:*
4

Lärarens anteckning
Examiner's remarks:

1)

a) Marginal Product is used to measure productivity in the Short-run while returns to scale is used in the Long-run.

Marginal Product is used in the Short-run because it takes both Specilizing and Dimishing returns in to the Calculation

Specializing means as more workers are used the Marginal Product will increase, while Dimishing Returns is the opposite

While calculating Marginal Product not all inputs are variable but when Calculating Returns to Scale all inputs are variable like Plant Size. Thats because things like Plant Size can't be changed in the Short-Run, but it can be in the Long-run.

Dimishing marginal Product means that the Marginal Product is Decreasing.

Decreasing Returns to Scale means that ie. if you double all inputs, the output will be less than double.

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Behandla endast en uppgift per sida / *Answer only one question per page*

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NEGA10-0003-2NY

Löpande sidnr
Consecutive no:
3

Uppgift nr /
Question no:
1

Poäng / *Points awarded:*

Lärarens anteckning
Examiner's remarks:

① b) $VC = AVC \cdot Q \Rightarrow 20 \times 10 \Rightarrow \underline{200 = VC}$

$TC = ATC \cdot Q \Rightarrow 50 \times 10 \Rightarrow \underline{TC = 500}$

$FC = AFC \cdot Q \Rightarrow TC - VC \Rightarrow 500 - 200 \Rightarrow \underline{FC = 300}$

Producing one more unit will lead to

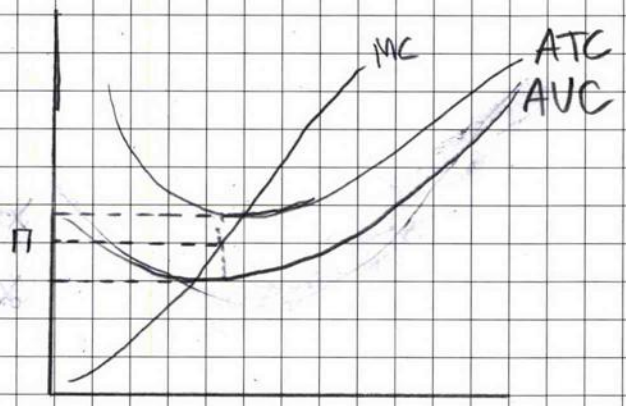
$VC = 230 \Rightarrow AVC = \frac{230}{11} \Rightarrow AVC \approx 20,9$

Therefor AVC is increasing, MC > AVC also indicates increasing AVC R

As more units are produced AFC R will always decrease, since FC is fixed cost, FC won't change if more or less are produced.

$ATC = \frac{300 + 230}{11} \Rightarrow ATC \approx 48,2$

ATC is decreasing R



Since MC is larger than AVC but smaller than ATC, the firm is producing around Π, ✓

When MC > AVC, AVC is increasing

When MC < ATC, ATC is decreasing R

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Löpande sidnr *Consecutive no:* 4

Uppgift nr / *Question no:* 2

Poäng / *Points awarded:* 10

Lärarens anteckning *Examiner's remarks:*

a) Equilibrium is where Demand and Supply crosses

$300 - 15Q = 100 + 5Q \Rightarrow 200 = 20Q$

$Q = 10$

$P = 100 + 5Q \Rightarrow 100 + (5 \cdot 10) \Rightarrow P = 150$

ANSWER: Quantity = 10
PRICE = 150 R 1

b) $SMC = MC_E + S \Rightarrow 20 + 100 + 5Q \Rightarrow 120 + 5Q$

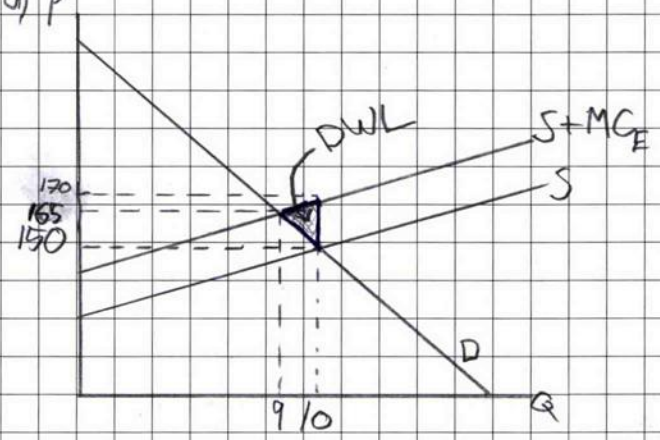
ANSWER: $SMC = 120 + 5Q$ R 1

c) NEW Supply curve $= 120 + 5Q$

$120 + 5Q = 300 - 15Q \Rightarrow 20Q = 180 \Rightarrow Q = 9$

ANSWER: Socially efficient Quantity is 9 R 1

d)



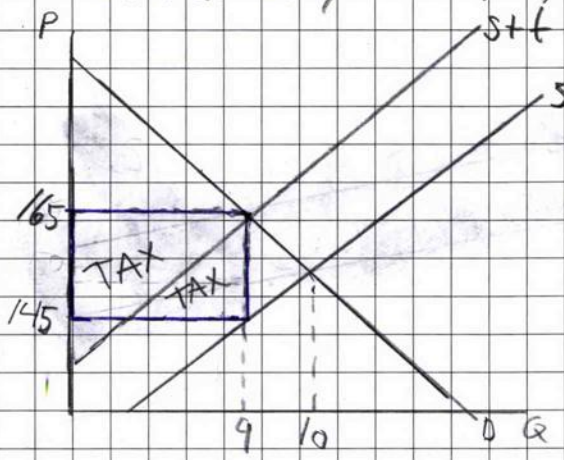
2

R

$DWL = \frac{(170 - 150) \cdot (10 - 9)}{2} \Rightarrow \frac{20 \cdot 1}{2} \Rightarrow 10 \Rightarrow DWL = 10$

ANSWER: DWL = 10

e) tax should be equal to the externality t=20/ton



The firms will internalize the externality. S+t curve will be the same as $S+MC_E$ R

3

Total tax Revenue $\Rightarrow (165-145)\cdot 9 \Rightarrow 180$ R

Price after tax $\Rightarrow 300-15\cdot 9 \Rightarrow P=165$ R

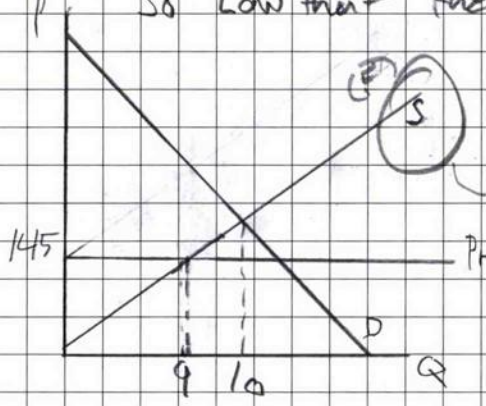
quantity after tax = 9 (calculated in c)

Price per ton after tax $\Rightarrow \frac{P}{Q} \Rightarrow \frac{165}{9} \approx 18,3$ → no, it's a 165 as you calculated before

ANSWER: Total tax Revenue = 180
PRICE per ton after tax ≈ 18,3

f) one would be to put a price ceiling so low that the firm only produces same amount as with tax, Price ceiling is

$P=100+5\cdot 9 = 145$



2-

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Löpande sidnr *Consecutive no:* 6

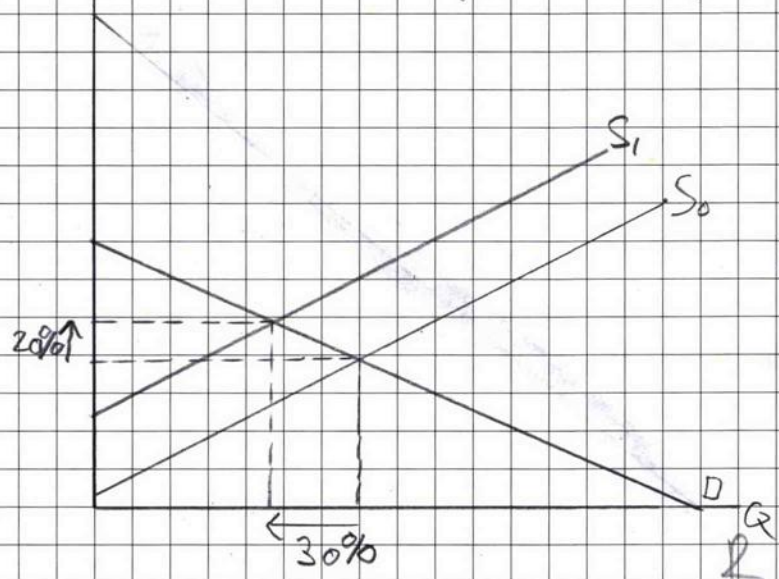
Uppgift nr / *Question no:* 3

Poäng / *Points awarded:* 11

Lärarens anteckning *Examiner's remarks:*

a) only elasticity that can be calculated is Price elasticity of demand

S_0 = initial Supply S_1 = Supply after poor harvest



2

Price elasticity of Demand => $\frac{\%\text{ Change in Demand}}{\%\text{ Change in Price}}$

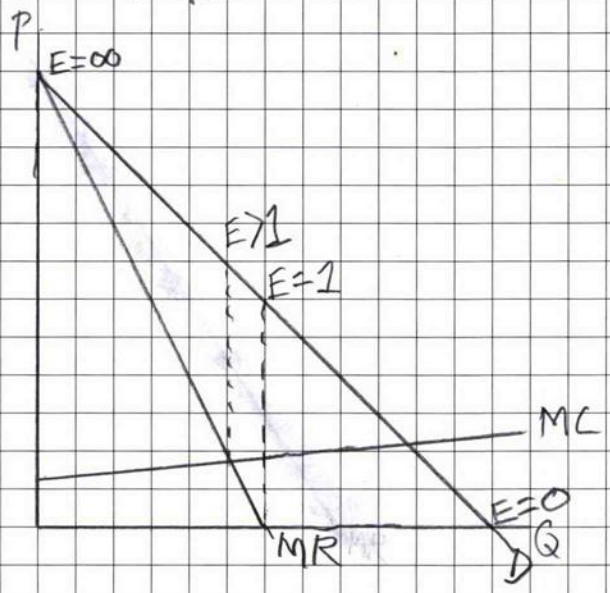
$\Rightarrow \frac{30}{20} \Rightarrow 1,5 = E_p$

2

ANSWER: Price elasticity of Demand => $E_p = 1,5$

2

6) Profit Maximising When MR=MC
When MR=0 E=1



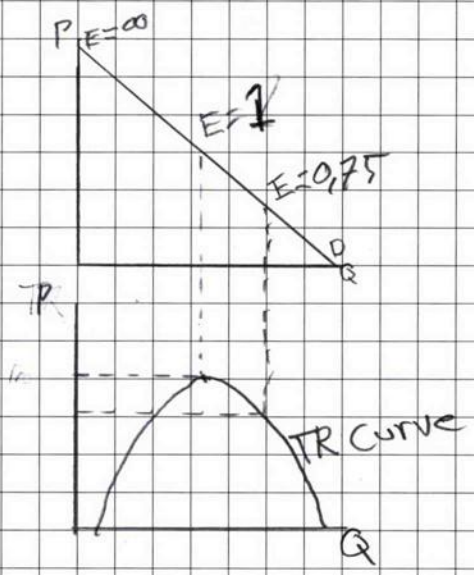
Since Profit Maximising always has a price elasticity over 1 (Except when MC=0, in that Scenario Profit Maximising will be at E=1 point), and this firm produces at E<1 which must mean that it should increase its price.

Profit Maximising is Never under 1 Even if MC=0

R

good answer, well done!

3



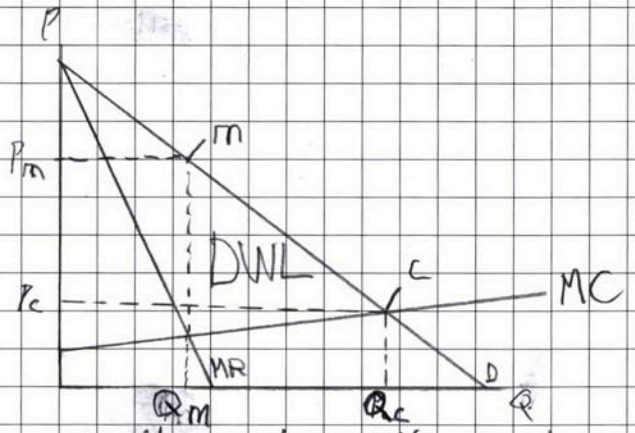
c) Natural Monopoly is when a firms Average total cost is so low, and they produce such a big Quantity that no other firm will enter the market, Because they Wont be able to make a profit.

One example is Boilding railway, very high barries to enter and if one firm already has railway covered over a large areay it will be extreamy hard to Compete and very expensive.

Natural monopoly will Produce where MR=MC and not at socially optimum point Whic is MC=D.

this will cause a large Dead Weight loss

two Solutions to this is Price Celling and legislation to improve competition



m= Monopoly will produce and sell at P_m and Q_m this point.

c= Socially optimal point P_c and Q_c

Price Celling Should be put at P_c because it will become the firms new MR curve, since firms profit Maximize they will produce MR=MC and end up at Socially optimal Point

2.5

Häftområde

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3

Poäng / *Points awarded:*

Lärarens anteckning
Examiner's remarks:

d) In both monopolistic competition and perfect competition the barriers to enter are low, Many firms on the market

Q2b
0?

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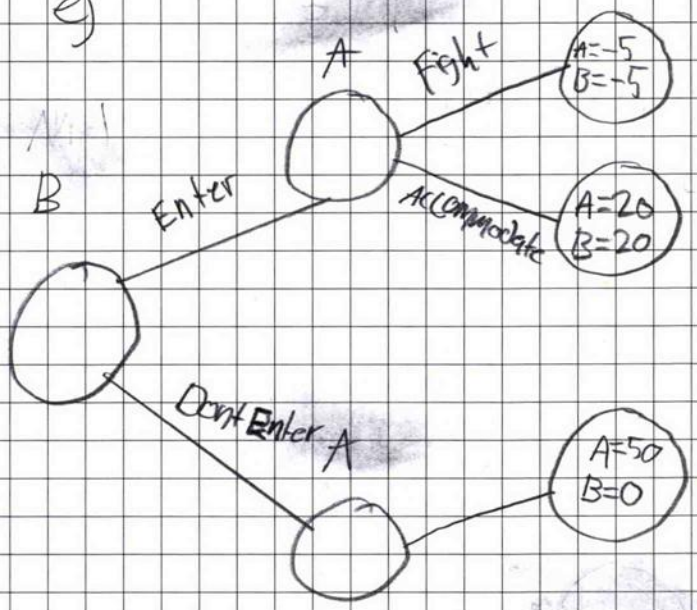
Löpande sidnr
Consecutive no:
10

Uppgift nr /
Question no:
3

Poäng / *Points awarded:*

Lärarens anteckning
Examiner's remarks:

e)



3

Outcome = A=20 B=20

If A Decides to fight both will earn -5, since A dont want to make a loss. A will Choose Accommodate.

Since B can make profit in this market, he will enter.