Microeconomics 2601
February 2017 : F1 Assessment test for ECS2601

Section A:

Question 1:

Prices Changes	Qs = 200 + 5P	Qs = 5P	Qs = -200 + 5P
From 50 to 60	.58	1	3.70
From 60 to 70			
From 70 to 80			
From 80 to 90	.44	.65	1.23
From 90 to 100			
From 300 to 310	.16	.18	.21

Es = Change in quantity Supplied / Change in Price

  (Qi + Q f) /2   (Pi + Pf) /2

Find Quantity of each first, then substitute into formula.

For supply curve Qs=200 = 5p   For supply curve Qs= 5p   For supply curve Qs=-200+5p

 Quantity at price 50   Quantity at price 50   Quantity at p 50

Qs = 200 + 5(50)   Qs=5(50)   Qs=-200 +5(50)

Qs=450   QS=250   Qs=50

Quantity at price 60   quantity at price 60   Quantity at p 60

Qs = 200 + 5(60)   Qs= 5(60)   Qs=-200 + 5(60)

Qs=500   Qs=300   Qs=100

Es=(50/475) divided by (10/55)   Es=(50/275)/(.18)   Es= (50/75)/(.18)

Es= .11/.18   Es= .18/.18   Es= .67/.18

ES= .58   Es=1   Es= 3.70

Comment [21]: Well done, I agree with your answers

Question 2:

2.1

Cereal 0.40c Per tablespoon

Apple Juice 0.60c Per tablespoon

Equal Share so 1:1

40% to 60%

R 80 per month

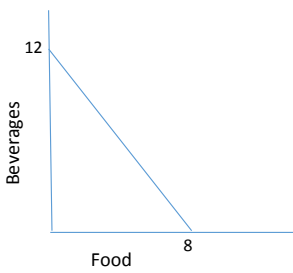40% of R 80 = R32 will be spent on Cereal   80 tablespoons of Cereal

60% of R 80 = R 48 will be spent on Apple Juice   80 tablespoons of Juice.

2.2

Budget Line:

X = 600/75 = 8   - Food

Y = 600/50 = 12   - Beverage

2.2.2
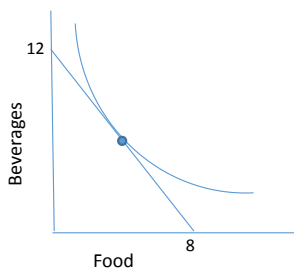
2.2.3

Slope of Budget line must = slope of Indifference curve

Indifference curve must be tangent to budget line

Mu x / Mu y = Px / Py   MRS = Px/Py

Q. 3

3.1

Q	TR	TC	TP TR - TC	AR TR /Q	ATC TC/Q	MR Change in TR	MC Change in Total Cost
0	0	50	50	0	0	0	
1	300	300	0	300	300	300	250
2	575	525	50	287.50	262.50	275	225
3	825	725	100	275	241.60	250	200
4	1050	900	150	262.50	225	225	175
5	1250	1050	200	250	210	200	150
6	1425	1225	200	237.50	204.16	175	175
7	1575	1425	150	225	203.57	150	200
8	1700	1650	50	212.50	206.25	125	225
9	1800	1900	-100	200	211.11	100	250
10	1875	2175	-300	187.50	217.5	75	275

3.2

Perfect Competitive market ?

Q. 4

4.1

Units	TFC	TVC	TC	ATC TC/Q	AVC VC/Q	MC Change in TC
0			20	-	-	
1	20	10	30	30	10	10
2	20	16	36	18	8	6
3	20	24	44	14.6	8	8
4	20	34	54	13.5	8.5	10
5	20	46	66	13.2	9.2	12
6	20	60	80	13.3	10	14
7	20	76	96	13.71	10.85	16
8	20	112	114	14.25	14	18

4.2, 4.3, 4.4

4.3 Market price R 16
Profit Max where MR = MC
7 Units @ R 16
Equilibrium quantity is 7 Units
Profit = TR –TC
R 112 – R96 = R 16 profit
At this point

4.3 D = P = AR = MR

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4.4 Price drops to R 12
Equilibrium Quantity is 5
Units. Made a loss of R -6
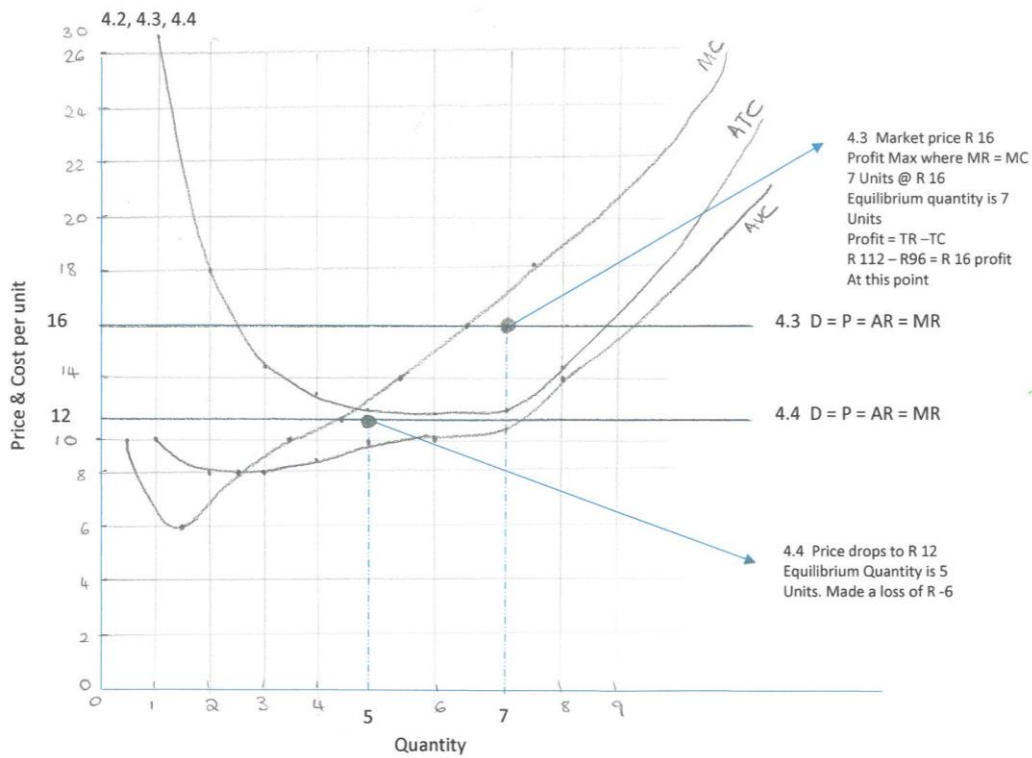
4.4 Why should a firm still produce in the short run?
If you stop production, there will no revenue, firm will still have to cover its costs irrespective of earning revenue or not. If it continues production it will at least be able to cover its variable costs and some of its fixed costs. Until the market price increases again, when it can start making a profit.

4.3   Price R 16 - Made Profit

Units	TR	TC	TP
1	16	30	-14
2	32	36	-4
3	48	44	4
4	64	54	10
5	80	66	14
6	96	80	16
7	112	96	16
8	128	114	14

4.4   Price R 12 - Made Loss

Units	TR	TC	TP
1	12	30	-18
2	24	36	-12
3	36	44	-8
4	48	54	-6
5	60	66	-6
6	72	80	-8
7	84	96	-12
8	96	114	-18

Q. 5

- Firm A and B would choose to cut prices
- It is the dominant strategy
- If firm B cuts and Firm A Cuts Firm A would get 6
- If firm B colludes and frim A cuts Firm A would get 24
- It makes sense for firm A to cut
- Same logic applies to firm B