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ECON 102 Brown – Final Exam – Practice Exam Solutions

1. B
2. C
3. C – All products are identical (homogenous) in perfect competition so there is no such thing as brand preference.
4. C – Breakeven is another way of saying they will earn zero profit.
5. A
6. C – Since price is constant in perfect competition, marginal revenue and price are the same thing.
7. B – In perfect competition  $MR = P$ . The firm will produce where  $MR = MC$ . A firm will be earning zero profit when the ATC is tangent to the demand curve at the point where the demand curve intersects MC because this is the point where  $P = ATC$ .
8. C – Since we found the price of \$7 is the point where profit is \$0, that means any price below \$7 will have a negative profit.
9. D – When this is true we should shut down operations.
10. B – If the farmer shuts down the only costs he will have will be his fixed costs.
11. D
12. C
13. A
14. C – This is another way of saying that firms will earn a profit of zero.
15. A
16. C – Firms in perfect competition are considered to be price takers. In the long run in perfect competition, firms will earn zero economic profit.
17. A
18. D – Remember that the average revenue curve is the same thing as the demand curve for monopolist.
19. A
20. D – The monopolist should reduce output and raise price until  $MR = MC$ .
21. B – ATC is greater than price at the point where  $MR = MC$ .
22. D

23. C – Remember that maximizing revenue is different than maximizing profit. Firms maximize profit at the point where  $MR = MC$ . However, maximizing revenue means that you are just trying to earn as much revenue as possible and you aren't concerned about the level of your costs. You maximize revenue by producing at the point where  $MR = 0$  because that means you have gotten all of the revenue you can and if you sell any more units you will have negative MR.
24. C – This problem has to do with the social costs of monopolies covered in the review. The perfect competition graph doesn't look like this, but if it did we would produce where MC intersects the demand curve. Don't over think why the graph changed, just know if you have a question on perfect competition and see a graph like this perfect competition will produce where  $MC = D$ .
25. A – A monopoly will produce where  $MR = MC$ .
26. D – If you understand the questions above this question should make sense. I put this on there to show you another way this type of question could be asked.
27. A
28. B
29. C
30. A – Price is greater than ATC at the point where  $MR = MC$ .
31. B
32. C
33. C – If you look at the notes you will see that firms are less motivated to keep costs low once they reach their earnings cap in the profit sharing model; however, C is the best answer because firms using the rate of return regulation method have virtually no incentive to minimize costs. This is why C is the best answer.
34. A – This is the quantity where  $MR = MC$ .
35. A – To find price we find where  $MR = MC$  and then WE GO UP TO THE DEMAND CURVE and then over to find price.
36. A – At the quantity Q1 price is greater than ATC.
37. C
38. D
39. A – Perfect price discrimination is economically efficient because there is no DWL and it is desirable for producers because they will maximize their profits. It is inequitable for consumers because some people will have to pay really high prices and others will pay really low prices. So it is good for some consumers and bad for others.
40. A – Price is greater than ATC at the point where  $MR = MC$ .
41. D
42. D
43. C
44. D
45. C
46. B
47. C
48. C

49. D

50. C

51. D

52. B - Note that answer choice D is not correct, or at least not the best answer, because firms in monopolistic competition do not generally strategically interact. We did say that monopolistically competitive firms might strategically interact with the competitors that produce products most similar to their own a little, but this is more of a side note than an absolute rule. All firms in monopolistically competitive markets have downward sloping demand curves so B is the best answer. Make sure to keep this question in mind on your exam. You always want to pick the best answer.

53. B

54. C

55. C

56. D

57. B

58. D

59. C

60. D

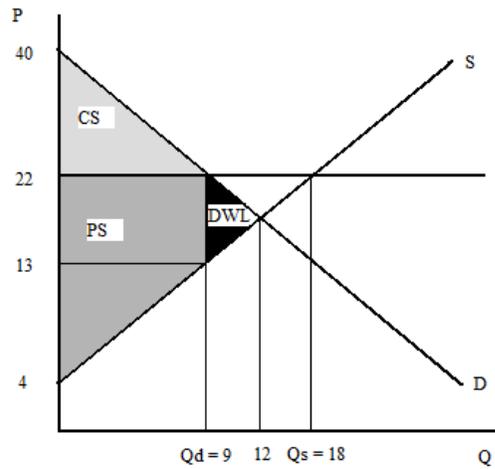
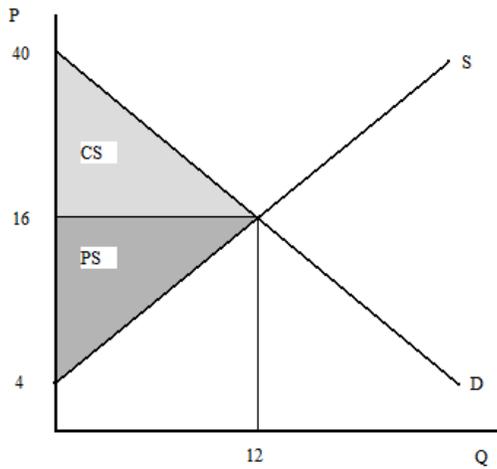
61. A

62. B

63. C

64. D

**Use the graphs below for the next 6 problems:**



65. D

$$4 + Q = 40 - 2Q$$

$$3Q = 36$$

$$Q = 12$$

$$P = 4 + 12 = 16$$

$$P = 40 - 2(12) = 16$$

66. C

$$CS = (1/2)(12)(40 - 16) = 144$$

$$PS = (1/2)(12)(16 - 4) = 72$$

67. A

**Quantity demanded at a price of \$22**

$$P = 40 - 2Q_d$$

$$\$22 = 40 - 2Q_d$$

$$Q_d = 9$$

**Price suppliers would be willing accept at a quantity of 9 units**

$$P = 4 + Q_s$$

$$P = 4 + 9$$

$$p = 13$$

$$CS = (1/2)(9)(40 - 22) = 81$$

$$PS = (1/2)(9)(13-4) + (9)(22 - 13) = 121.5$$

68. A

$$DWL = (1/2)(22 - 13)(12 - 9) = 13.5$$

69. C

70. B

**Quantity demanded at a price of \$22:**

$$P = 40 - 2Q_d$$

$$\$22 = 40 - 2Q_d$$

$$Q_d = 9$$

**Quantity supplied at a price of \$22:**

$$P = 4 + Q_s$$

$$\$22 = 4 + Q_s$$

$$Q_s = 18$$

71. B – A perfectly competitive firm's supply curve is the firm's marginal cost curve above the marginal cost curves intersect with average variable cost.

72. A – The firm will produce where  $MR = MC$ .

73. C – \$40

$$\text{Profit} = (P - ATC)(Q)$$

$$\text{Profit} = (\$30 - \$28)(20)$$

$$\text{Profit} = \$40$$

74. D – Either A or B. We will need to compare the price to AVC to know for sure. If price is greater than AVC, the firm will continue to operate in the short run even though price is less than ATC. If price is less than AVC, the firm will shut down.

75. C – The economies of scale are large relative to the industry demand.

76. C – Only large-scale production can lower the average cost of production. This means you have to produce large volumes of output to be able to get to the lowest cost per unit.

77. E –  $P_1, Q_1$  because this is the point where  $MR = MC$ . Make sure to remember you go up to the demand curve and then over to find price.

78. C –  $P_1, A, B, P_4$

79. B – Q3, P2 because if a firm is able to use perfect price discrimination it will produce all the way to the point where  $P = MC$ . This is the point where the MC curve and demand curve intersect.
80. C – A monopoly will only produce expensive products.
81. D – All firms produce where  $MR = MC$  no matter what kind of market they are in.
82. C – Lower price because the monopolist faces a downward sloping demand curve.
83. A – Only 1 because the other two are requirements to be able to price discriminate using market segmentation.
84. A – More elastic because there is more competition so consumers are more sensitive to changes in price.
85. C –  $P = ATC$ , and ATC is not at its minimum.
86. D – It is downward sloping because if a monopolistically competitive firm wants to sell additional units, it will have to lower price.
87. C – The monopolistically competitive firm will charge a higher price and produce less output.
88. D – It is possible for both perfectly competitive and monopolistically competitive firms to earn positive or negative profit in the short run. However, since there are no barriers to entry and exit in either market, both firms will earn zero economic profit in the long run.
89. D – Fast food
90. B – Decrease the number of firms in an industry.
91. B – Vertical merger
92. B – There are a few large firms in the industry.
93. D – There is strong interdependence among competing firms. This means that one firm's actions directly impact the other firms in the industry.