

MGT 100 Practice Quiz 2 covering weeks 5-9

This is a practice quiz 2. Answers are at the end. The real Midterm 1 quiz takes place at CBTF, or TTC if you have documented accommodations. Advance reservation is required. It is closed-notes with duration up to 45 minutes, with 20 questions drawn from a larger bank: 5 T1, 10 T2, and 5 T3.

- T1 and T2 questions are true/false or multiple choice. 1 point each.
- T3 questions are short answer, with 25-word limit. 4 points each. Answers are graded manually. Correct and complete answers get 4 points; correct but incomplete answers get 3 points; answers with a mix of correct and incorrect content get 1 point; incorrect answers get 0. Blank or 'decline' answers get 2 points. Hence, you are indicating your confidence level when you enter an answer. We encourage you to decline answering—by entering 'decline'—if you are not certain enough. Two points for 'decline' is better than 0 or 1 for a wrong guess.

Q1. A mixed logit (random-coefficients) demand model allows preference parameters to vary across customers.

True False

Q2. According to the week 9 reading, US public companies are currently *not* required to disclose customer metrics like churn or customer lifetime value in their financial reports.

True False

Q3. The basic Bass diffusion model includes parameters for innovation, imitation, and market size.

True False

Q4. A known limitation of conjoint analysis is that what people say they would do in a survey may differ from what they actually do in real life.

True False

Q5. Adding more predictors to a regression model can only increase its in-sample R-squared, but may worsen out-of-sample predictions.

True False

Q6. Which of the following best characterizes the relationship between TAM (Total Addressable Market) and SAM (Served Available Market)?

(a) TAM is always larger than SAM

(b) TAM and SAM are computed independently and have no systematic relationship

(c) TAM equals SAM by definition

Q7. The IIA property of basic MNL implies that introducing a new product reduces the market shares of all existing products in proportion to their pre-entry shares.

True False

Q8. Economic theory says that, under imperfect competition, a profit-maximizing firm sets its price such that marginal revenue equals marginal cost.

True False

Q9. Professor Wilbur recommends using the constant-elasticity demand model to set a profit-maximizing price due to its mathematical elegance.

True False

Q10. Price endogeneity refers to the correlation between observed prices and unobserved demand drivers, which biases naïve demand estimates.

True False

Q11. Why does a naïve regression of sales on advertising spend typically overstate the true causal effect of advertising on sales?

(a) Random measurement error attenuates the estimate toward the true value

(b) Algorithms target ads to consumers most likely to purchase anyway, so observed sales overstate ad-caused sales

(c) Sales data are typically right-skewed

(d) You cannot estimate unbiased advertising effects without exogenous price variation

Q12. One of the ways we calculated willingness to pay to hire a celebrity endorser was to adjust the celebrity's effect on our trained demand model, re-optimize product line pricing, and then predict the total profit difference, without considering competitor price responses.

True False

Q13. Brand safety refers to safeguarding a brand's associations by avoiding ad placement next to unsavory or negative content.

True False

Q14. Customer Lifetime Value is typically computed as the sum of a customer's past purchases minus their acquisition cost.

True False

Q15. Customer-Based Corporate Valuation (CBCV) is more straightforward to apply to valuing subscription businesses, as opposed to transactional businesses, because subscriber active/inactive status is observed directly.

True False

Q16. There are many objectives which can inform model selection. In 25 words or less, explain the most important criterion for model selection that we covered during our week 5 class. Write 'decline' if you choose to not answer this question, and thereby receive 2 out of 4 available points.

Q17. Many firms appear to use cost-based or competitor-tracking pricing, rather than the profit-maximizing pricing predicted by economic theory. In 25 words or less, name one of Wilbur's three hypothesized conditions under which profit-maximization is most likely to hold in practice. Write 'decline' if you choose to not answer this question, and thereby receive 2 out of 4 available points.

Q18. A consultant proposes setting the firm's selling price equal to EVC (Economic Value to the Customer). In 25 words or less, explain why this advice is bad. Write 'decline' if you choose to not answer this question, and thereby receive 2 out of 4 available points.

Q19. Coca-Cola plans to cut brand advertising next quarter to fund a performance-ad campaign on Meta. In 25 words or less, explain why this might harm long-run profits, even if next-quarter ROAS rises. Write 'decline' if you choose to not answer this question, and thereby receive 2 out of 4 available points.

Q20. A marketer internally calculates CLV as (average revenue per customer) × (average customer lifetime) – (acquisition cost). In 25 words or less, identify something wrong or missing in this formula. Write 'decline' if you choose to not answer this question, and thereby receive 2 out of 4 available points.

Answer Key

Q1. True. Q2. True. Q3. True. Q4. True. Q5. True. Q6. A. Q7. True. Q8. True. Q9. False. Q10. True. Q11. B. Q12. True. Q13. True. Q14. False. Q15. True. Q16. Modeling utility — fitness for purpose. No model is true; choose the one that best serves the intended use (prediction, explanation, or decision support). Q17. 3 conditions are: Clear, prompt feedback on pricing decisions; repeated similar pricing situations (learning by doing); internal incentives aligned with profit-maximization. (Writing one suffices.) Q18. EVC is a price ceiling. 1-Selling at EVC offers no inducement for the customer to purchase. EVC. 2-Customer's perceived value often is less than EVC. [Either 1 or 2 would offer full credit.] Q19. Brand and performance ads are short-run substitutes but long-run complements. Cutting brand erodes the mental real estate that future performance ads depend on for conversion. [Another acceptable rationale: Few people buy soda online, so performance ads are a bad fit for coke.] Q20. Should use margin (not revenue), incorporate retention probabilities, and discount future cash flows for the time value of money. CLV is the NPV of expected future profits.