

*Test Bank for Business Analytics 1st
Edition by Abdey*

ISBN: 9781529774108

Business Analytics (1st)

ISBN 9781529774108 | Chapter 1

Total Questions: 20

Multiple Choice (20)

Q1. [Multiple Choice]

What is uncertainty?

- a) A state of clarity and predictability
- b) The lack of knowledge or information about a situation ✓ correct**
- c) A state of absolute certainty about the future
- d) A characteristic only applicable to financial decisions

Q2. [Multiple Choice]

What is the difference between dependent and independent variables?

- a) Dependent variables are qualitative, while independent variables are always controllable.
- b) Dependent variables cause changes in independent variables.
- c) Independent variables cause changes in dependent variables. ✓ correct**
- d) Dependent variables are qualitative, while independent variables are quantitative.

Q3. [Multiple Choice]

In decision-making under uncertainty, what is a dependent variable?

- a) A variable that causes changes in other variables.
- b) A variable that does not affect outcomes.
- c) A variable that remains constant in all situations.
- d) A variable being measured or observed. ✓ correct**

Q4. [Multiple Choice]

What is the main purpose of the DIKW pyramid?

- a) To model the conversion of data into wisdom. ✓ correct**
- b) To establish cause-and-effect relationships.
- c) To convert data into information.
- d) To provide insights into uncertain situations.

Q5. [Multiple Choice]

What is a model in the context of decision-making under uncertainty?

- a) A complex representation of reality with all details considered.
- b) A prediction about the future with certainty.
- c) A deliberate simplification of reality. ✓ correct**
- d) An analysis based on incomplete data.

Q6. [Multiple Choice]

In the standard Monty Hall problem, where there are 3 doors, what is the probability of winning the car by switching doors after Monty has opened a door?

- a) 1/2
- b) 1/3
- c) 1/4
- d) 2/3 ✓ correct**

Q7. [Multiple Choice]

What is the primary goal of decision-making under uncertainty?

- a) **To make informed decisions in situations with incomplete information. ✓ correct**
- b) To eliminate all risks and uncertainties.
- c) To maximise profits and minimise losses.
- d) To always choose the safest option.

Q8. [Multiple Choice]

What are the 'four Ps'?

- a) Four predictive variables in regression analysis.
- b) **Four marketing mix variables: product, price, placement, and promotion. ✓ correct**
- c) Four popular statistical software packages.
- d) Four probability distributions commonly used in statistical modeling.

Q9. [Multiple Choice]

Suppose 'customer satisfaction score' is a dependent variable of interest. What are the likely independent variables?

- a) Economic climate, government regulations, technological advancements
- b) Market demand, customer preferences, product features
- c) Customer age, employee satisfaction, marketing budget
- d) **Service quality, price, food quality, location ✓ correct**

Q10. [Multiple Choice]

For a city with a metro system, which improvement would you recommend for the network map?

- a) Display the metro map in black and white
- b) **Use geographic accuracy in the map ✓ correct**
- c) Remove station names
- d) Show all metro lines using the same colour

Q11. [Multiple Choice]

Suppose the producers of the Monty Hall show changed the format of the game. Instead of there being three doors, there are now $n > 3$ doors. The contestant chooses a door. Monty (who continues to know where the car is) opens $n - 2$ doors, leaving the contestant's original door and one other door unopened.

- a) **The optimal strategy is still to switch door. ✓ correct**
- b) The optimal strategy is to stick with the original door.
- c) The optimal strategy depends on the value of n .
- d) The optimal strategy is to choose the door Monty opens.

Q12. [Multiple Choice]

What does the DIKW pyramid represent?

- a) Dependent, Independent, Knowledge, Wisdom
- b) Decision and Insight for Knowledge Workers
- c) **Data, Information, Knowledge, Wisdom ✓ correct**
- d) Decision-making in Knowledge Work

Q13. [Multiple Choice]

In a business context, what does 'risk' refer to?

- a) The certainty of an outcome
- b) The lack of uncertainty in a decision
- c) The potential for a positive outcome
- d) **The potential for both positive and negative outcomes ✓ correct**

Q14. [Multiple Choice]

What is meant by the 'four Ps'?

- a) Probability, Precision, Prediction, and Planning
- b) Population, Probability, Parameter, and Prediction
- c) Product, Price, Placement, and Promotion ✓ correct**
- d) Planning, Preparation, Presentation, and Promotion

Q15. [Multiple Choice]

Which of the following is correct?

- a) Situational factors and controllable
- b) Performance metrics are independent variables
- c) Behavioural responses are dependent variables ✓ correct**
- d) The marketing mix variables are uncontrollable

Q16. [Multiple Choice]

Which price-setting approach creates the illusion of a bargain by using prices like £ 39.99 instead of £ 40?

- a) Odd-even pricing
- b) Prestige pricing
- c) Charm pricing ✓ correct**
- d) Discount pricing

Q17. [Multiple Choice]

When determining a new product's price, which factor should be given more weight if it has a significant impact on the outcome of interest?

- a) Managerial insights
- b) Price granularity
- c) Qualitative analysis
- d) Relevant variables ✓ correct**

Q18. [Multiple Choice]

What is the potential implication of setting a very high price for a new product?

- a) Increased demand from price-sensitive customers
- b) Decreased sales due to perceived overpricing ✓ correct**
- c) Higher market share for the product
- d) Lower production costs

Q19. [Multiple Choice]

In the Monty Hall problem, what is Monty Hall's objective when he opens one of the other two doors to reveal a sheep?

- a) To confuse the contestant
- b) To increase the chances of the contestant winning the car ✓ correct**
- c) To decrease the chances of the contestant winning the car
- d) To show the contestant that there are sheep behind the other doors

Q20. [Multiple Choice]

When is it appropriate to choose a more complex model?

- a) When computational resources are limited
- b) When the dataset is small
- c) When the trade-off between simplicity and complexity is not critical ✓ correct**
- d) When the model needs to be easily explainable to non-experts