Student name:\_\_\_\_\_\_\_\_\_\_

**1)** In the SMART analytics principle, the letter “A” refers to an \_\_\_\_\_\_\_\_ goal-setting technique.

A) attainable   
 B) applicable  
 C) acceptable  
 D) accurate

**2)** In the context of data measurement types, ratios have no true zero point.

⊚ true  
 ⊚ false

**3)** Between 2004 and 2020, the Google Trends search volume for the term “HR analytics” has been consistently higher than that for the term “marketing analytics.”

⊚ true  
 ⊚ false

**4)** When the target variable is categorical, supervised learning is called prediction.

⊚ true  
 ⊚ false

**5)** In supervised learning, which of the following datasets is used for assessing how well an algorithm estimates the target variable?

A) an unlabeled dataset   
 B) an independent dataset  
 C) a training dataset  
 D) a validation dataset

**6)** Identify a valid difference between descriptive analytics and predictive analytics.

A) Descriptive analytics predicts new needs and opportunities, whereas predictive analysis reinforces existing beneficial practices.   
 B) Descriptive analytics mimics human-like intelligence, whereas predictive analytics identifies the best optimal decision.  
 C) Descriptive analytics can identify patterns in data, whereas predictive analytics can recognize objects from an image.  
 D) Descriptive analytics uses data to explain the past, whereas predictive analytics uses data to explain the future.

**7)** A lack of marketing analytics skills can leave a company in a situation described as “information rich but data poor.”

⊚ true  
 ⊚ false

**8)** Secondary data can be most helpful \_\_\_\_\_\_\_\_.

A) in addressing specific marketing problems   
 B) in formulating ideas about how to ask the right questions  
 C) since it does not rely on existing data that has been collected for another purpose  
 D) in identifying customers that are unhappy

**9)** In supervised learning, the training dataset is used to

A) select the model that most accurately predicts the target value of interest.   
 B) assess how well the algorithm developed using the validation dataset estimates the target variable.  
 C) build the algorithm and “learn” the relationship between the predictors and the target variable.  
 D) evaluate the final selected algorithm and see how well it performs.

**10)** In the modeling development step of the 7-step marketing analytics process, the developed algorithm is run on the validation dataset to determine how well it will predict the relevant target variable (dependent variable).

⊚ true  
 ⊚ false

**11)** In the context of defining the right business problem, list the questions that need to be asked to determine context.

**12)** Which of the following types of data can be easily accessed and analyzed when using descriptive, predictive, and prescriptive data analytics techniques?

A) structured data   
 B) unstructured data  
 C) nominal data  
 D) categorical data

**13)** In the context of questions that help identify a business problem, which of the following questions helps to determine the context of the problem?

A) What do you think continues to drive this problem?   
 B) What divisions are impacted by this problem?  
 C) What is the current problem that needs solving?  
 D) What are the ethical implications of the analysis?

**14)** In the context of variable types in data measurement, explain the difference between numerical and categorical variables.

**15)** In the context of questions that help identify a business problem, asking “What factors continue to drive this problem?” will help determine the outcome of the \_\_\_\_\_\_\_\_.

A) stakeholder   
 B) impacted unit  
 C) root-cause analysis  
 D) timeline

**16)** According to the survey by KDnuggets, which of the following is the top software used by companies for marketing analytics?

A) Apache Spark   
 B) scikit-learn  
 C) Python  
 D) Tableau

**17)** Which of the following businesses would most likely determine demand for its product/service based on the season and the type of technology employed by users?

A) a travel services website   
 B) a matchmaking app  
 C) a medical information website  
 D) a food delivery mobile app

**18)** In which step of the 7-step marketing analytics process are the unit of analysis and the target and predictor variables identified?

A) data understanding and collection   
 B) model development  
 C) model evaluation and interpretation  
 D) data preparation and feature selection

**19)** In supervised learning, the validation dataset is used to “learn” the relationship between the predictors and the target variable.

⊚ true  
 ⊚ false

**20)** In the context of modeling types, supervised learning is referred to as prediction when the

A) target variable is continuous.   
 B) historical dataset is continuous.  
 C) historical dataset is categorical.  
 D) target variable is categorical.

**21)** Which of the following offers the ability to answer the question “What should happen?” in marketing analytics?

A) data query   
 B) text recognition  
 C) forecasting  
 D) image recognition

**22)** In the context of determining the correct business problem, asking “What happened?” will help to determine the timeline of the problem.

⊚ true  
 ⊚ false

**23)** Shop-o-maniac, an e-commerce website, is experiencing low website traffic. Based on the 7-step marketing analytics process, what should be the first step taken by the firm to develop a plan to increase its website traffic?

A) data understanding and collection   
 B) business problem understanding  
 C) data preparation and feature selection  
 D) model development

**24)** In the context of modeling types, supervised learning is called classification when

A) the target variable is continuous.   
 B) a testing dataset is used to evaluate the final selected algorithm.  
 C) the target variable is categorical.  
 D) an unlabeled dataset is used to develop an algorithm.

**25)** Google Dataset Search is useful in helping data enthusiasts find available data sources.

⊚ true  
 ⊚ false

**26)** Which of the following is true about the fifth principle in the SMART analytics principles?

A) The project should be trackable and the outcomes measurable.   
 B) The project should solve the analytics problem and align with the business objectives.  
 C) The project should be completed in a timely manner.  
 D) The project’s goals should be specific and clearly defined.

**27)** Which step of the 7-step marketing analytics process typically involves other key stakeholders such as information technology specialists, customer service representatives, or the sales team of an organization?

A) model development   
 B) model and results communication  
 C) data preparation and feature selection  
 D) model deployment

**28)** In the context of the 7-step marketing analytics process, which of the following steps should be followed after completing model evaluation and interpretation?

A) model deployment   
 B) model and results communication  
 C) business problem understanding  
 D) data preparation and feature selection

**29)** Which of the following types of secondary data includes ZIP code data showing tax return information by state and ZIP code level?

A) corporate information   
 B) mobile data  
 C) channel partners  
 D) government sources

**30)** The Department of Agriculture is a source of secondary data on \_\_\_\_\_\_\_\_.

A) consumer complaints regarding government’s financial products and services   
 B) population, economy, housing, and geography  
 C) demographic characteristics such as gender, ethnicity, and citizenship  
 D) fruit and vegetable prices for over 153 commonly consumed products

**31)** The goal of unsupervised learning is to model the underlying structure and distribution in the data to discover and confirm patterns in the data.

⊚ true  
 ⊚ false

**32)** Discuss how a business can use supervised and unsupervised learning together to gain more insights about a problem it is facing.

**33)** Discuss the importance of knowledge of marketing analytics when an individual is searching for a job.

**34)** Which of the following is most helpful for a business designing a future statistics collection initiative?

A) machine learning   
 B) secondary data  
 C) root-cause analysis  
 D) artificial intelligence

**35)** Variables are characteristics or features that pertain to a person, place, or object.

⊚ true  
 ⊚ false

**36)** In the second step of the 7-step marketing analytics process, a marketing analyst should

A) identify where the data is stored.   
 B) question whether the problem the business is presenting is, in fact, the correct problem.  
 C) identify the target and predictor variables.  
 D) select the method to use based on the target variable and problem.

**37)** A marketing analyst at a gaming company is studying the effect of school holidays on sales of video games. In this study, what type of variable is school holidays?

A) a target variable   
 B) a dependent variable  
 C) an outcome variable  
 D) an independent variable

**38)** In supervised learning, the testing dataset is used to

A) assess how well the algorithm developed using the training dataset estimates the target variable.   
 B) evaluate the final selected algorithm and see how well it performs on a third dataset.  
 C) “learn” the relationship between the predictors and the target variable.  
 D) select the model that most accurately predicts the target value of interest.

**39)** List and describe four sources of secondary data.

**40)** Which of the following statements is true of supervised learning?

A) In supervised learning, the target variable of interest is known.   
 B) The goal of supervised learning is to model the underlying structure and distribution in the data.  
 C) Supervised learning has no previously defined target variable.  
 D) Supervised learning is used to discover and confirm patterns in the data.

**Answer Key**Test name: Essentials of Marketing Analytics Author: Hair 1th ch1

1) A

2) FALSE

3) FALSE

4) FALSE

5) D

6) D

7) FALSE

8) B

9) C

10) FALSE

12) A

13) C

15) C

16) C

17) A

18) D

19) FALSE

20) A

21) C

22) FALSE

23) B

24) C

25) TRUE

26) C

27) D

28) B

29) D

30) D

31) TRUE

34) B

35) TRUE

36) A

37) D

38) B

40) A