



**MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL**

Paper Code : BBA 504A/BBA(BA) 503A Data Analytics Skills for Managers

UPID : 500101

Time Allotted : 3 Hours

Full Marks :70

*The Figures in the margin indicate full marks.*

*Candidate are required to give their answers in their own words as far as practicable*

**Group-A (Very Short Answer Type Question)**

1. Answer any ten of the following :

[ 1 x 10 = 10 ]

- (i) Customer analytics refers to
  - (A) Customer Relationship Management: churn analysis and prevention
  - (B) Marketing: cross-sell, up-sell
  - (C) Pricing: leakage monitoring, promotional effects tracking, competitive price responses
  - (D) All of the mentioned above
- (ii) Amongst which of the following is / are the applications of Linear Regression ?
  - (A) Biological
  - (B) Behavioural
  - (C) Social sciences
  - (D) All of the mentioned above
- (iii) Which of the following is a branch of statistics?
  - (A) Descriptive statistics
  - (B) Inferential statistics
  - (C) Industry statistics
  - (D) Both A and B
- (iv) The analysis where independent variable is used to explain the dependent variable is known as \_\_\_\_\_.
  - (A) Linear regression analysis
  - (B) Multiple regression analysis
  - (C) Non-linear regression analysis
  - (D) None of the above
- (v) Can we solve the multiclass classification problems using Logistic Regression?
- (vi) Which of the following algorithm is most sensitive to outliers?
  - (A) K-means clustering algorithm
  - (B) K-medians clustering algorithm
  - (C) K-modes clustering algorithm
  - (D) K-medoids clustering algorithm
- (vii) In the low level of maturity of any organization, the technique of quality improvement uses \_\_\_\_\_.
  - (A) Acceptance sampling
  - (B) Statistical process control
  - (C) Design of experiments
  - (D) Regression analysis
- (viii) In MS-Excel which elements of worksheet can be protected from accidental modification?
  - (A) Contents
  - (B) Objects
  - (C) Scenarios
  - (D) All of the above
- (ix) Statistical quality control techniques are based on the theory of
  - (A) Quality
  - (B) Statistics
  - (C) Probability
  - (D) All of the above
- (x) Big data analytics refers to collecting, processing, cleaning and analyzing large datasets . Is it true or false ?
- (xi) Classification in data mining refers to
  - ( A ) Data mining procedure to sort data
  - (B) A method to find data

- (C) Generalizing structures
- (D) Setting up a target data

- 100) The variables whose calculation is done according to the weight, height, and length are known as \_\_\_\_\_
- (A) Flowchart variables
  - (B) Discrete variables
  - (C) Continuous variables
  - (D) Measuring variables

**Group-B (Short Answer Type Question)**

Answer any three of the following :

[ 5 x 3 = 15 ]

2. What is data? What do you mean by Data Base Management Systems (DBMS)? [5]
3. Distinguish between population and sample. [5]
4. Discuss how does quantitative methods play role in taking managerial decisions . [5]
5. Compare between Correlation and Regression. [5]
6. Write down the steps of goal seek analysis in MS-Excel. [5]

**Group-C (Long Answer Type Question)**

Answer any three of the following :

[ 15 x 3 = 45 ]

7. (a) Describe different types of analytics tools in business. [ 8 ]  
(b) Describe role of computer science and Information Technology in analysis of data for business. [ 7 ]
8. (a) What is collection of data? Describe different methods for collecting primary data. [ 2+5 ]  
(b) Write down different sources of secondary data with examples. [ 5 ]  
(c) Differentiate between primary and secondary data with examples. [ 3 ]
9. (a) What is standard deviation ? Write down the steps for calculating standard deviation . [ 2+3 ]  
(b) Differentiate between skewness and kurtosis [ 5 ]  
(c) What is the difference between one-way and Two-way ANOVA? [ 5 ]
10. (a) What is Bivariate data analysis? Give an example. [ 5+2 ]  
(b) You might be eager to find out the relationship between caloric intake and weight (of course, the two are related very strongly). Caloric intake will be your independent variable, X, and weight will be your dependent variable, Y. Arrange the data in a tabular form:(You can take the quantities as per your choice) [ 8 ]
11. (a) What is inspection in manufacturing? What is the role of inspection in quality control? [ 2+3 ]  
(b) What are the objectives of inspection? [ 4 ]  
(c) Discuss on different types of inspection methods. [ 6 ]

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