# Dr. Babasaheb Ambedkar Open University
## Term End Examination January – 2023

| | | | | | |
|---|---|---|---|---|---|
| **Course** | : | BBAR/DBAR | **Date** | : | 10-Feb-2023 |
| **Subject Code** | : | BBAR-304 | **Time** | : | 09:30am to 11:45am |
| **Subject Name** | : | Business Analytics | **Duration** | : | 02.15 Hours |
| | | | **Max. Marks** | : | 70 |

## Section A

**Answer the following (Attempt any three)** (30)

1. Explain the classification and important tool used in different type of business analytics.
2. Describe the different types of data measurement scales for the research.
3. Explain the Pearson Correlation Coefficient in detail. Define its relevance in research.
4. Discuss the difference between the Binomial and Poisson Distribution.
5. Explain the types of probabilistic sampling in detail.

## Section B

**Answer the following (Attempt any four)** (20)

1. What is linear regression? What are residuals in linear regression?
2. Explain these two coefficients of determination: R, R Square
3. Discuss Type I and II error for Hypothesis testing.
4. Define the moving average method for time series data analysis in detail.
5. Explain the difference between the Z and t Statistics
6. Define the measures of Central tendency in detail.

## Section C
## Part – A (Multiple Choice Questions) (10)

1 Which of the following values is used as a summary measure for a sample, such as a sample mean?

A Population parameter      B Sample parameter
C Sample statistic      D Population mean

2 Which measure of central tendency includes the magnitude of scores?

A Mean      B Median
C Mode      D Range

3 The average value of the quality characteristic corresponding to in-control state is represented by _____ in the control charts.

A CL      B UCL
C LCL      D Sample Number

4 Which of the following are types of correlation

A Positive and Negative      B Simple, Partial and Multiple
C Linear and Non-Linear      D All of the Above

5 Which of the following statements is true for correlation analysis?

A It is a bivariate analysis      B It is a multivariate analysis
C It is a univariate analysis      D Both a and c

6    The range of Chi Square is _____
     A   -∞ to +∞                          B   -1 to +1
     C   -∞ to 0                           D   0 to ∞
7    Data concerning events over a period of time is called a _____
     A   Moving Average                    B   Random Simple
     C   Frequency Distribution            D   Time Series
8    The time series forecasting method gives equal weightage to each of the m most observations is _____.
     A   Moving Average Method             B   Exponential Smoothing and Linear Trend
     C   Triple Exponential Smoothing      D   None of these
9    To study the Gender Profile of the respondent, which Scale data are used for the data collection?
     A   Nominal Scale                     B   Ordinal Scale
     C   Interval Scale                    D   Ratio Scale
10   A statement made about a population for testing purpose is called?
     A   Statistic                         B   Hypothesis
     C   Level of Significance             D   Test-Statistic

## Part – B (Do as Directed) (10)

**State whether the following statements are true or false:**

1    Linear Regression is mainly used for Regression.
2    If the values of two variables move in the same direction it is called positive correlation among the variables.
3    The value of Chi Square distribution is Zero.
4    For a Poisson Variate X, $P(X=1) = P(X=2)$. The variance X is 1.
5    If the assumed hypothesis is tested for rejection considering it to be true is called alternate hypothesis.
6    The normal curve is symmetrical about the mean.
7    Variance is a component of time series data.
8    In autoregressive models, Current value of dependent variable is influenced by past values of both dependent and independent variables.
9    Standard deviation is considered to be a measurement of central tendency.
10   If the generated value of tolerance is equals to 1, it is an indication of Perfect Multicollinearity.

\*\*\*\*\*