PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2023
(Fifth Semester)
Branch – COMPUTER SCIENCE

DISCIPLINE SPECIFIC ELECTIVE COURSE – I PREDICTIVE ANALYTICS

Time: Three Hours Maximum: 50 Marks

SECTION-A (5 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (5 x 1 = 5)

1 What are unusual values that are separated from the main body of the distribution?
(i) Outliers (ii) Variable Cleaning
(iii) Fixing Missed Data (iv) Feature Creation

2 Which variable is typically transformed by a function that has a disproportionate effect on the tails of the distribution?
(i) Fixing Skew (ii) Fixing features
(iii) Binning Variables (iv) Ordinal Transformations

3 Which technique along with statistics is used in Predictive analytics to determine future performance?
(i) Algorithmic techniques (ii) Modeling techniques
(iii) Design techniques (iv)) System development

4 Choose the data in Probabilistic Model within each class.
(i) Discriminative classification (ii) Generative classification
(iii) Probabilistic classification (iv) Both b and c

5 How many coefficients do you need to estimate in a simple linear regression model (One independent variable)?
(i) 1 (ii) 2
(iii) 3 (iv) 4

SECTION - B (15 Marks)
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 3 = 15)

6 a Explain predictive Analysis.
OR
b List out any three challenges in predictive modeling.

7 a Explain the single variable analysis.
OR
b Describe about statistical significance.

Cont...

8 a Analyze the multidimensional outliers.

OR

b Describe about numeric value scaling.

9 a What are the parameters used for frequent itemset mining?

OR

b Explain the logistic regression.

10 a What is Naïve Bayes predictive model?

OR

b How regression models are evaluated.

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 6 = 30)

11 a Narrate the various challenges in predictive analysis.

OR

b Distinguish between predictive modeling and Business understanding.

12 a Elucidate on one dimensional data visualization.

OR

b How data consistency is maintained in multidimensional data visualization.

13 a What are the ways to fix the missing values in a dataset? Describe.

OR

b Illustrate on time series data prediction model.

14 a Explicate the Apriori algorithm for frequent itemset mining.

OR

b Illustrate on K nearest neighbor method for predicting the individual data point.

15 a Explain about linear regression for dependent variable models.

OR

b Elucidate on the performance evaluation in predictive modeling.

Z-Z-Z END