R20 Regulation *Subject code: 3E7EG*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VII Semester Regular Examinations, November 2023

PREDICTIVE ANALYTICS

(CSE)

Maximum Marks: 70 Date:06.12.2023 Duration: 3 hours

Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X2M=20 Marks)		Bloom Tx
1	How do you handle missing data in predictive modeling	L2
2	What is the significance of data preprocessing in predictive analytics?	L2
3	How do you handle multi-collinearity in logistic regression models?	L2
4	What is an ensemble method?	L2
5	What is the significance of NOS 905?	L2
6	What is pruning	L2
7	What is time series forecasting?	L2
8	What are the key components (P, D, Q) of an ARIMA model?	L2
9	How can employees access and contribute to a corporate knowledge base effectively?	L2
10	Why is peer review important in the document creation?	

Part-B

Answer All the following questions. (5X10M=50Marks)		
11	A. Explain the tools and environments commonly used in predictive analytics, and how do they facilitate the modeling process? [6M]	L2
	B. What are missing imputations in predictive modeling? [4M]	L2
	OR	
12	A. Explain the significance of business modeling. How does it help businesses make informed decisions and optimize their operations? [6M]	L2
	B. Discuss the Blue property in the context of linear regression. [4M]	L2
13	A. In logistic regression, what are some of the commonly used model fit statistics, and how are they interpreted to assess the model's performance? [6M]	L2
	B. What is the role of deviance and AIC (Akaike Information Criterion) in evaluating the goodness of fit in logistic regression models? [4M]	L2
	OR	
14	Compare and contrast supervised learning and unsupervised learning techniques in terms of their goals, applications, and methodologies. [10M]	L4

15	A. Explain the fundamental differences between regression and segmentation in supervised learning. [6M] B. What is overfitting? How does it affect decision trees? [4M]	L2 L2
	OR	
16	A. Explain the importance of record-keeping in HR management? [5M] B. How can NOS 905 benefit both employers and employees in terms of career development, skill recognition, and industry standards? [5M]	L2 L2
17	A. Explain the concept of time series forecasting and its relevance in decision-making processes. [5M] B. Describe the ARIMA model? [5M]	L2 L2
	OR	
18	Discuss about Seasonal-Trend decomposition using LOESS (STL) approach for time series decomposition. [10]	L2
19	A. How do well-defined Standard Operating Procedures (SOPs) help in maintaining consistency and quality in document creation and knowledge sharing processes within an organization? [6M] B. Discuss the role of style and format in document creation? [4M]	L2 L2
	OR	
20	A. Explain the intellectual property protection strategies that organizations commonly employ? [5M] B. Discuss about the importance of respecting intellectual property and copyright laws in document creation and knowledge sharing. How can organizations navigate these legal considerations effectively? [5M]	L2 L2