R20 Regulation *Subject code:3E7EG*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VII Semester Supplementary Examinations, May 2026

PREDICTIVE ANALYTICS
(CSE)

Maximum Marks: 70 Date: 13.05.2026 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.
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)		Marks	CO	BTL
1	What are some data modeling techniques commonly used in PA.	2M	1	L1
2	What is the least squares estimation method?	2M	1	L1
3	How do you handle multicollinearity in logistic regression models?	2M	2	L1
4	What is the difference between bagging and boosting?	2M	2	L1
5	What is the significance of NOS 905?	2M	3	L1
6	What is pruning?	2M	3	L1
7	What are some commonly used metrics to measure the accuracy of time series forecasts?	2M	4	L1
8	What is the purpose of feature extraction in time series analysis?	2M	4	L1
9	How can employees access and contribute to a corporate knowledge base effectively?	2M	5	L1
10	Why is peer review important in the document creation?	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	What is the primary purpose of predictive analytics, and why is it essential in today's business landscape?	10M	1	L2
	OR			
12	Discuss the significance of business modeling. How does it help businesses make informed decisions and optimize their operations?	10M	1	L2
13	What are ensemble methods, and how do they relate to the use of multiple decision trees in predictive modeling?	10M	2	L2
	OR			
14	Explain the concept of tree pruning. When and why is pruning necessary, and what techniques can be employed to simplify complex decision trees?	10M	2	L2
15	Explain the regression and segmentation in supervised learning.	10M	3	L2
	OR			

16	a) Explain the importance of record-keeping in HR management? b) How can NOS 905 benefit both employers and employees in terms of career development, skill recognition, and industry standards?	5M 5M	3	L2
17	Explain the ARIMA model and its components.	10M	4	L2
	OR			
18	Describe the typical steps involved in a time series forecasting project, from data collection and preprocessing to model selection and evaluation.	10M	4	L2
19	Explain Standard Operating Procedures help in maintaining consistency and quality in document creation and knowledge sharing processes within an organization?	10M	5	L2
	OR			
20	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?	10M	5	L2