







Ans: Classification problems



 [D]













Ans: False





Ans: The cost function used in Logistic Regression is Log Loss Function or Binary Cross Entropy





 [B]













Ans : L1 Regularization: Adds the absolute values of coefficients to the loss function. It can shrink some coefficients to zero ,thus performing future selection.

L2 Regularization: Adds the squared values of the coefficients to the loss function . It discourages large coefficients but doesn’t set them to zero.





 [B]













Ans: The output of Logistic Regression model before applying sigmoid function is linear combination of  model input features which is logits







Ans: - For Logistics Regression the target variable is categorical

* For Linear Regression the target variable is continuous



[B]













 [A]













Ans:  False KNN is non parametric algorithm.



 [B]













Ans: A small K can lead to overfitting & high variance, while a large K can lead to underfitting & high bias. The choice of K affects the smoothness of the decision boundary.



 [C]













Ans: KNN finds the ‘K’ nearest neighbors to the new data point using a distance metric, then assigns the most common class among those neighbors for classification or averages their values for regression.



 [C]













Ans: **Pros**:

• KNN is simple

•Makes no assumptions about data distribution

•Can model complex boundaries.

**Cons:**

•KNN is computationally expensive at prediction

•Sensitive to irrelevant features and the scale of data

•Does not provide feature importance, unlike Logistic Regression.





Ans: If K=1, the model is highly sensitive to noise and outliers, leading to overfitting.





 [A]











|  |
| --- |
|  |