BDA 5251 Machine Learning for Big Data

MSE

Date: 24/03/2025   Time: 2.30 – 4.30 p.m.   Marks: 30

Q. No.	Question	Marks/ BLT/CO/PO
	Problem Statement: HELP International have been able to raise around $ 10 million. Now the CEO of the NGO needs to decide how to use this money strategically and effectively. So, CEO has to make decision to choose the countries that are in the direst need of aid. Hence, your Job as a Data scientist is to categorise the countries using some socio-economic and health factors that determine the overall development of the country. Then you need to suggest the countries which the CEO needs to focus on the most.	
1	Demonstrate k-means clustering and agglomerative hierarchical clustering to categorise the countries using some socio-economic and health factors that determine the overall development of the country.	10/3/1/3
2	Compare results of k-means clustering with agglomerative hierarchical clustering for the given dataset. Then you need to suggest the countries which the CEO needs to focus on the most.	10/4/3/4
3	Experiment a single layer perceptron model for logical OR function with bipolar inputs and targets. The initial values of weights and bias are w1=w2=b=0, learning rate α = 0.3 and threshold θ=1.	10/4/2/4