

PGP in AI/ML

Regression - Assignment 1

Submission Date: 2359hrs on __ -11-2019

Total Marks: 12

Q.1 The following questions are to enhance your understanding of basic concepts and definitions. You are expected to answer these questions on your own without referring to internet. [6 Marks]

- a. State any four business applications of machine learning. (0.5*4 = 2M)
- b. Explain the difference between supervised learning and unsupervised learning with example. (1 Mark)
- c. Provide differences between regression, classification and clustering problems. Give an example where each of these models could be used. (1+1+1 M)

Q.2 solve the following matrix using simultaneous equations in python (2M)

$$6x+2y - 5z=13$$

$$3x+3y - 2z=13$$

$$7x+5y - 3z=26$$

Q.3 The following dataset of size $n = 63$ provides total payment (in thousands) for all the claims of Swedish Kronor for geographical zones in Sweden. The variables are y = total payment in thousands and x = number of claims. Find the intercept, coefficient value and error term for this regression problem. How would you convey these numbers in a business context?

(2+2 = 4M)

Submissions:

Solutions or answers to all questions (excepting programming problems) should be submitted in a word document named 'Roll_No.doc' (Roll_No is your identity number of this programme).

All python code should be submitted in a Jupyter notebook named "Roll_No.ipynb".

Strictly, No zip files should be uploaded.

NOTE: *For any queries, Email @ murtuza.dahodwala@wilp.bits-pilani.ac.in*