

Python – Final Exam – Sample 1

Date: 09/04/2022

Marks: 60

Total Question: 6

All questions are mandatory

Q1.) (5 Marks)

Find the Total Price for the below Age.

Age = 4, 56, 76, 43, 56, 21, 32

Age <= 5 : Price = 0

Age <= 20 : Price = 100

Age <= 30 : Price = 120

Age <= 40 : Price = 150

Others : Price = 100

Comment out the Total Bill clearly.

Q2.) (5 Marks)

Print Random no. in the range [-100,10000], until and unless a no. less than -50 is generated.

Q3.) (10 Marks)

Get a set of unique values for the data below:

X = [12, 14, 14, 12, 12, 12, 15, 14, 15, 17, 81, 61, 15]

Q4.) (5 Marks)

Write a function that takes a list and gives output as a dictionary where the values are the **frequency** and key as the band as follows,

Band 1 : [0 - 100] : 12

Band 2 : [101 - 200] : 0

Band 3 : [201 - 500] : 0

Band 4 : [501 >=] : 0

Q5.) (10 Marks)

Write a function named `exp_mode( $\lambda$ )`, which takes the parameter value for an exponential distribution as an input and gives the Mode for the same.

Take x in [0,10] with a step of 0.01

Q6.) (30 Marks)

You are given a Data set named Bond.csv.

Predict the target variable “Trade Price” for any 2 bond ID.

Build the best possible model based on the metric: RMSE, MAE, MAPE

Perform all required Data Cleaning / Feature Selection / Diagnostics steps.
