National Vocational & Technical Training Commission
Institute of Electrical, Electronics and Computer Engineering
University of the Punjab

Artificial Intelligence C1 & C2
Assignment 01 : 08/06/2023
Module 1 : week 3

Submission Requirements: Please upload your codes in PDF File on Google Classroom in the relevant Assignment section.

Note: Plagiarism is a serious violation. Zero marks will be awarded in case plagiarism is found.

Task 1: Create 3D array having two rows and two columns and 10 parallel metrics.

Task 2: Make a Numpy array having 5 rows and 5 columns using ones() function.

After that convert it into the following shape:

[[1., 1., 1., 1., 1.],

[1., 0., 0., 0., 1.],

[1., 0., 0., 0., 1.],

[1., 0., 0., 0., 1.],

[1., 1., 1., 1., 1.]]

Find Mean median mode of All rows separately

Task 3: Create 3D array having three rows and five columns and 10 parallel metrics. Convert all elements of second rows equal to 5.

Task 4: Make a Numpy array of 3x3x3 of random numbers and place 1 if the element is odd and 0 if element is even.

Hint: np.random.randint(start,end,(size))

Task 5: Convert a 4D Numpy array having 24 elements into a 2D array having log of each element.

Task 6-A: Make a list of 1000 elements between 0 and 1. Calculate square of

each element and print time taken for execution. Repeat it for Numpy and compare time.

Task 6-B: Increase elements up to 10000 and 1000000 and see results.