SCHOOL OF CONTINUING AND DISTANCE EDUCATION

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

CERTIFICATE COURSE – ARTI FICIAL INTELLIGENCE AND MACHINE LEARING

Sub-1:Introduction to Data Science with Python

Introduction to AI: Introduction to AI, Applications of AI

Introduction to Python: Python Installation (Anaconda, Jupyter, Spyder, Pycharm, etc.),Working with IDE, Data types: Strings, Lists, Tuples, Sets, Dictionaries, Control Flows,Keywords, Functions, Predefined functions

Introduction to NumPy: Arrays- One-dimensional Array, Two-dimensional Array, BasicMatrix operations, Slicing, indexing, Looping, Shape Manipulation, Stacking, Scalar addition,subtraction, multiplication, division, Matrix addition, subtraction, multiplication, division andtranspose.

Introduction to Pandas: Series, Data Frames

Exploratory Data Analysis, Feature Engineering & Visualization: Train/Test split – Datasnooping bias, Statistical Data Analysis, fixing missing values, Finding outliers, Data qualitycheck, Data Visualization (Packages - Matplotlib, Seaboarn), Categorical to Categorical,Categorical to Quantitative, Quantitative to Quantitative, Quantitative to Quantitative(Correlation).