

Dr. A. Q. Khan Institute of Computer Sciences & Information Technology, (KICSIT)
Department of Computer Engineering

Artificial Intelligence Lab (02)
Assignment/Quiz/Lab Task/Lab Report

Assigned Date:

1. **Lab Task 01:** NumPy is a fundamental tool for AI because it provides the foundation for efficient data handling, mathematical operations, and integration with AI frameworks. Its ability to perform fast, vectorized operations on large datasets makes it indispensable for AI practitioners and researchers.

Practice the all examples of numpy library mentioned in lab 02 → link ([Click here](#)).

[CLO-01, PLO-02, P-3(Guided Response), Rubric (Coding)]

Marks	1	2	3	4
Coding	The code is not as per guidelines and requirements are not met	Some section of code is correct	Most section of code is correct and understands it well	The code is properly written, and have good understanding about it

2. **Lab Task 02:** Pandas plays a pivotal role in AI by facilitating data preparation, exploration, and transformation, which are essential steps in the machine learning pipeline. It empowers data scientists and AI practitioners to efficiently work with structured data and prepare it for training and evaluation of AI models.

Try to implement all the examples of pandas library mentioned in lab 02 → link ([Click here](#)).

[CLO-01, PLO-02, P-3(Guided Response), Rubric (Coding)]

Marks	1	2	3	4
Coding	The code is not as per guidelines and requirements are not met	Some section of code is correct	Most section of code is correct and understands it well	The code is properly written, and have good understanding about it

3. **Lab Task 03:** Matplotlib plays a vital role in AI by providing a versatile toolkit for data visualization, model evaluation, debugging, and presenting results. Its ability to create a wide range of plots and its integration with other AI-related libraries make it a valuable tool for AI practitioners and researchers.

Try to implement all the examples of matplotlib library mentioned in lab 02 → link ([Click here](#)).

[CLO-01, PLO-02, P-3(Guided Response), Rubric (Coding)]

Marks	1	2	3	4
Coding	The code is not as per guidelines and requirements are not met	Some section of code is correct	Most section of code is correct and understands it well	The code is properly written, and have good understanding about it

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Artificial Intelligence Lab
All Rubrics of Microprocessor & Interfacing Lab

CLO 1

Marks	1	2	3	4
Coding	The code is not as per guidelines and requirements are not met	Some section of code is correct	Most section of code is correct and understands it well	The code is properly written, and have good understanding about it

CLO 2

Marks	1	2	3	4
Model Implementation	The model is not implemented as per guidelines and requirements are not met	Some section of model is correctly implemented	Most section of model is correctly implemented and understands it well	The model is properly implemented, and have good understanding about it

CLO 3

Marks	1	2	3	4
Data Pre-processing	The data is not pre-processed as per guidelines and requirements are not met	Some section of data pre-processing is correct	Most section of data pre-processing is correct and understands it well	The data pre-processing is done properly, and have good understanding about it

CLO 4

Marks	1	2	3	4
Team Work	Rarely listens to, shares with, and supports the efforts of others. Often is not a good team member.	Often listen to, shares with and supports the efforts of others, but sometimes is not good team member.	Usually listen to, shares with, and supports the efforts of others. Usually, respectful and listening actively	Almost always listens to, shares with and supports the efforts of others. Tries to keep people working well together.

Lab Report Rubric: *must be submitted in next lab.*

Marks	1	2	3	4
Lab Report	The lab report does not follow the guidelines for formatting.	Presents some sections of the lab in the correct order. Three or more sections are not in the correct order; missing heading or title;	Presents most sections of the lab in the correct order, one or two sections may not be in the correct order; heading or title missing or not complete;	Presents all the sections of the lab in the correct order with correct formatting: includes correct heading, section headings and title of lab;

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