

Assessment Pattern

Bloom's Category	Continuous Assessment Tests		End Semester Examination
	1	2	
Remember (K1)			
Understand (K2)			
Apply (K3)	50	50	50
Analyse (K4)			
Evaluate (K5)			
Create(K6)			

Mark distribution

Total Marks	CIE	ESE	ESE Duration
100	50	50	3 hours

Continuous Internal Evaluation Pattern:

Maximum Marks: 50	
Attendance	7½
Maintenance of daily lab record and GitHub management	10
Regular class viva voce	7½
Timely completion of day-to-day tasks	10
Tests/Evaluation	15

End Semester Examination Pattern:

Maximum Marks: 50			
Verification of Daily program record and Git Repository			5 marks
Viva			10 marks
Problem solving (Based on difficulty level, one or more questions may be given)	Flowchart / Algorithm / Structured description of problem to explain how the problem can be solved / Interface Design	15%	35 marks
	Program correctness	50%	
	Code efficiency	15%	
	Formatted output	20%	

Course Level Assessment Questions**Course Outcome 1 (CO1):**

- Review of python programming – Programs review the fundamentals of python (simple python programs ice breaker) – (at most one lab session)

- Matrix operations (using vectorization) and transformation using python and SVD using Python.
- Programs using matplotlib / plotly / bokeh / seaborn for data visualisation.
- Programs to handle data using pandas.

Course Outcome 2 (CO2)

- Program to implement k-NN classification using any standard dataset available in the public domain and find the accuracy of the algorithm.
- Program to implement Naïve Bayes Algorithm using any standard dataset available in the public domain and find the accuracy of the algorithm
- Program to implement linear and multiple regression techniques using any standard dataset available in the public domain and evaluate its performance.

Course Outcome 3(CO3):

- Program to implement text classification using Support vector machine.
- Program to implement decision trees using any standard dataset available in the public domain and find the accuracy of the algorithm.
- Program to implement k-means clustering technique using any standard dataset available in the public domain

Course Outcome 4 (CO4):

- Programs on feedforward network to classify any standard dataset available in the public domain.
- Programs on convolutional neural network to classify images from any standard dataset in the public domain.

*[Note] : Encourage students to refer standard neural network architectures such as LeNet5, ResNet, GoogLeNet etc. and use these as starting points for their models.

Course Outcome 5 (CO5):

Web Data Mining

- Implement a simple web crawler (ensure ethical conduct).
- Implement a program to scrap the web page of any popular website – suggested python package is scrapy (ensure ethical conduct).