

- Q.16 Explain the process of splitting dataset into Training and Validation set
- Q.17 Explain about dataset slicing with examples.
- Q.18 What is module and package in Python? Explain.
- Q.19 Explain the process of building learning system.
- Q.20 Define linear regression model.
- Q.21 How to generate sequence number using python?
- Q.22 Write short note on Anaconda platform

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)
- Q.23 Explain the concept of weighted sums and dot product with example.
- Q.24 Illustrate K means clustering algorithm with an example.
- Q.25 Write a short note on:

- a) Forecasting
- b) Clustering
- c) Elbow method
- d) Optimal cluster

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4th Sem / Artificial Intelligence & Machine Learning

Subject : Machine Learning

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 Which of the following is a correct syntax for the filter() function in Python?
- a) Filter (function, sequence)
 - b) Filter(sequence, function)
 - c) Filter(sequence)(function)
 - d) Filter(function)(sequence)
- Q.2 How many variables are required to represent a linear regression model?
- a) 3
 - b) 2
 - c) 1
 - d) 4

(40)

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Q.3 Which of the following function is used for k-means clustering?

- a) K-means
- b) K-mean
- c) heatmap
- d) None of the mentioned

Q.4 Which of the following is not a core data type in Python programming?

- a) Tuples
- b) Lists
- c) Class
- d) Dictionary

Q.5 Which of the following functions is a built-in function in python?

- a) Factorial()
- b) Print()
- c) Seed()
- d) sqrt()

Q.6 Which Python library is widely used for creating data visualizations and plots?

- a) Numpy
- b) Matplotlib
- c) Scikit-learn
- d) Non

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 The _____ function iterates through all items in the given iterable and executes the function passed as an argument on each of them.

Q.8 The learner is trying to predict housing prices based on the size of each house. The variable "size" is _____ variable

Q.9 _____ function is used to draw a histogram using python.

Q.10 Keys of a dictionary must be an integer. (True/False)

Q.11 labelled training data is used in _____ learning.

Q.12 The independent variable is represented along X-axis. (True/False)

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 List out any four applications of machine learning.

Q.14 Write down the major differences between K-means clustering and hierarchical clustering.

Q.15 Explain the concept of Moving Average Model.