Q.22 What are the steps in building a regression model? (CO4)

SECTION-D

Note: Long answer questions. Attempt any two questions out of three Questions. **(2x8=16)**

Q.23 Discuss major frameworks used for machine learning models in detail. (CO1)

Q.24 What is clustering? Explain various clustering techniques in detail. (CO3)

Q.25 Discuss various features of Python that make it suitable for machine learning. (CO2)

4th Sem.
Branch : Artificial Intelligence & Machine Learning
Sub. Machine Learning

Time : 3 Hrs. M.M. : 60

SECTION-A

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

Q.1 Machine learning is : (CO1)

a) Training based on historical data

b) Prediction to answer a query

c) Both A & B

d) Automization of complex tasks

Q.2 Machine learning is a subset of____? (CO1)

a) Data Mining   b) Artificial Intelligence

c) Deep Learning   d) None of the above

Q.3 Who developed Python Programming Language?(CO2)

a) Wick van Rossum

b) Rasmus Lerdorf

c) Guido van Rossum

d) Niene Stom

Q.4 Which clustering algorithm is based on the concept of centroids? (CO3)

a) K-Means
b) DBSCAN
c) Agglomerative
d) Mean-Shift

Q.5 How many variables are required to represent a linear regression model? (CO4)

a) 3
b) 2
c) 1
d) 4

Q.6 Which forecasting methods is commonly used for analyzing and predicting trends in time series data? (CO4)

a) Exponential smoothing
b) Autoregressive integrated moving average (ARIMA)
c) Seasonal decomposition
d) Time series regression

SECTION-B

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

Q.7 What are variables in python? (CO2)

Q.8 What is Anaconda platform? (CO1)

Q.9 What are missing values in datasets? (CO3)

Q.10 In time series analysis, what does the acronym "LSTM" stand for? (CO3)

Q.11 What is feature set in linear regression? (CO4)

Q.12 What is a bar graph? (CO3)

SECTION-C

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

Q.13 What are the benefits of using Python language? (CO2)

Q.14 Discuss control statements used in python with suitable example. (CO2)

Q.15 Explain some real-life applications of clustering algorithms? (CO3)

Q.16 What are different data types in python? (CO2)

Q.17 Discuss some machine learning frameworks in brief. (CO1)

Q.18 What are pure functions in functional programming? (CO2)

Q.19 Explain slicing indexing and grouping in context of datasets in python. (CO3)

Q.20 What is data visualization? (CO4)

Q.21 Explain Moving Average method of forecasting in brief. (CO3)