SEAT No. :

P8466

Oct-22/BE/Insem-42

B.E. (Computer Engg.)

MACHINE LEARNING

(2019 Pattern) (Semester - VII) (410242)

Time : 1 Hour]   *[Max. Marks : 30*

Instructions to the candidates :

1) *Answer Q1 or Q2, Q3 or Q4.*

2) *Neat diagrams must be drawn whenever necessary.*

3) *Figures to the right indicate full marks.*

4) *Assume suitable data, if necessary.*

Q1) a) Compare machine learning vs Artificial Intelligence. **[5]**

b) Describe parametric and Non-parametric machine learning models.
[5]

c) Explain various Data formats that conform ML elements. **[5]**

OR

Q2) a) Explain supervised, unsupervised and semi supervised learning. **[7]**

b) Describe various statistical learning approaches. **[8]**

Q3) a) Consider a vector x = (23, 29, 52, 31, 45, 19, 18, 27) Apply feature scaling and find out min-max scaled values as well as z-score values.
[8]

b) Explain the process of Principal Component Analysis (PCA) in brief.
[7]

OR

P.T.O.

Q4) a) How to handle missing values in a dataset that will be used for training the ML model? **[5]**

b) Explain the types of wrapper methods for feature selection. **[5]**

c) Explain Local Binary Pattern (LBP) feature extraction technique with suitable example. **[5]**

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