Total No. of Questions : 4]

SEAT No. :

P5190

[Total No. of Pages : 2

[6188]-142
B.E. (Computer Engineering) (Insem)
MACHINE LEARNING
(2019 Pattern) (Semester - VII) (410242)

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

Instructions to the candidates:

1) ***Answer Q.1 or Q.2, Q.3 or Q.4.***
2) ***Figures to the right side indicate full marks.***
3) ***Draw neat diagrams wherever necessary.***
4) ***Assume suitable data if necessary.***

Q1) a) Compare Machine Learning with traditional programming. Discuss types of Machine Learning with suitable examples. **[5]**

b) What are various Statistical Learning Approaches? **[5]**

c) Explain different dataformats used in Machine Learning. **[5]**

OR

Q2) a) What is Machine Learning? Explain applications of Machine Learning in data science. **[5]**

b) Explain Geometric Model and Probabilistic Model with suitable examples. **[5]**

c) How machine learning model works? Explain various steps involved. **[5]**

Q3) a) What is feature selection? Explain filtering technique. **[5]**

b) Explain kernel PCA in detail. **[5]**

c) Calculate LBP code generated value for the central point in the neighborhood of 8 pixels as shown below. **[5]**

10	12	18
7	9	6
9	2	4

OR

P.T.O.

Q4) a) Explain Min-Max scaling with suitable example. **[5]**

b) What is Matrix factorization? Explain content based filtering with an example. **[5]**

c) Given following data for attribute AGE calculate Z- score normalization.

AGE = {18, 22, 25, 42, 28, 43, 33, 35, 56, 28} **[5]**

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