

Total No. of Questions : 8]

SEAT No. :

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[Total No. of Pages : 2

[6263]-82

B.E. (Computer Engineering)

MACHINE LEARNING

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

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates :

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.*
- 2) *Figures to the right side indicate full marks.*
- 3) *Draw neat diagram wherever necessary.*
- 4) *Assume suitable data, if necessary.*

- Q1)** a) Define different regression models. [6]
b) What are different techniques to reduce under fitting? [6]
c) With following data of shows company expenditure. [6]

x(month)	1	2	3	4	5
y(expenditure)	12	19	29	37	45

using regression model predict expenditure of 6th month.

OR

- Q2)** a) What is R2 measure of evaluation? [6]
b) What do you mean by least square method? Explain least square method in the context of linear regression. [6]
c) Write a short note on stochastic gradient descent algorithms. [6]
- Q3)** a) Why ensemble learning is used for ML? [5]
b) What are advantages and disadvantages of K-NN? [6]
c) What are different distance metrics used in k-NN? [6]

OR

P.T.O.

- Q4)** a) What is multiclass classification? Explain the variants of multiclass classification. [5]
b) Explain kernel methods which are suitable for SVM. [6]
c) What are different techniques used for outlier handling? [6]

- Q5)** a) Why K-medoid is used? Explain k-medoid algorithm. [5]
b) Why density based clustering is used? Explain any one. [6]
c) What is outlier analysis? [6]

OR

- Q6)** a) What is isolation factor model? [5]
b) Explain k means algorithm. [6]
c) Explain Hierarchical clustering with example [6]

- Q7)** a) What is Multilayer perceptron? Describe with diagram. [6]
b) What are different activation function used in NN? [6]
c) Explain Convolution Neural Network. (CNN) with suitable example. [6]

OR

- Q8)** a) Explain building blocks of RBF networks. [6]
b) What is Personalized recommendation? What is content based recommendation? [6]
c) Explain Recurrent Neural Networks with as example. [6]
