

Total No. of Questions : 5]

SEAT No. :

P3780

[Total No. of Pages : 2

[6025]-58

S.Y. M.B.A.

**SC-BA-04: MACHINE LEARNING & COGNITIVE INTELLIGENCE
USING PYTHON**

(2019 Pattern) (Semester-III) (305 BA)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory and carries equal marks.*
- 2) *Figures to the right indicate full marks.*
- 3) *Draw suitable diagram wherever necessary*
- 4) *Assume suitable data if required.*

Q1) Solve any five (10 marks with 2 marks each)

[5×2=10]

- a) Define the term 'Machine Learning'
- b) What do you mean by 'Scope of variables?' in python.
- c) What are objects and classes? Give example
- d) Define Dictionary as a data structure in Python with example.
- e) What is the feature of cognitive intelligence?
- f) What are the advantages with Python Programming?
- g) State any 2 applications of supervised machine learning.
- h) Write a short code in Python for decision making using loop.

Q2) Solve any two:

[10]

- a) Explain the steps of building ML systems using SEMMA process model.
- b) Illustrate decision trees with example.
- c) Summarize-Plotting and visualization charts using Pandas in Python.

Q3) Solve any one:

[10]

- a) Criticize K-Means clustering with advantages and disadvantages.
- b) Analyse graphically supervised machine learning algorithm using Support Vector Machine method.

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Q4) Solve any one:

[10]

- a) Compare between supervised and unsupervised learning.
- b) Explain linear regression with metrics for evaluating linear model.

Q5) Solve any one:

[10]

- a) “Applications of Clustering-in Marketing & Finance domain” Discuss.
- b) Write a code with Pandas to display the first 10 rows of the Data Frame named “movie_data.csv” in Python.

