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SEAT No. :

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[6118]-58

M.B.A. - II

**305 BA-SC-BA-04 : MACHINE LEARNING & COGNITIVE
INTELLIGENCE USING PYTHON
(2019 Pattern) (Semester - III)**

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Figures to the right indicate full marks.*

Q1) Solve any five :

[10]

- a) Define the term machine learnings.
- b) Discuss the advantages of Tuple over list.
- c) What do you mean by IDE? Why should we use IDE?
- d) What is the difference between data science and big data analytics?
- e) List the steps of CRISP-DM Methodology.
- f) What is the maximum number of variables that we can delete using “del a, b, c.....n”? Is it many or is there any limit to no. of variables?
- g) List two names of core libraries in python.
- h) Enlist the key features of python.

Q2) Solve any Two :

[10]

- a) Describe basic data types in Python.
- b) Explain the concept of numpy array with example.
- c) Discuss multivariate regression in Python.

[P.T.O]

Q3) Solve any one :

[10]

- a) Elaborate logistics Regression with example in Python.
- b) Explain following list functions.
 - i) append
 - ii) insert
 - iii) sort
 - iv) index
 - v) extend

Q4) Solve any one :

[10]

- a) Appraise the application of Decision tree algorithm in business decision making.
- b) Interpret machine learning categories : supervised, unsupervised and Reinforcement learning.

Q5) Solve any ONE :

[10]

- a) Design a code in python to find largest of three numbers.
- b) Design a code in python to find the sum of natural numbers up to n which is provided by user.



Aug 23

Total No. of Questions : 5]

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SEAT No. :

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[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.

P.T.O.

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.



Total No. of Questions : 5]

SEAT No. :

PA-3686

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M.B.A. - II (Business Analytics)

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) Draw neat labeled diagram wherever necessary.*
- 2) Figures to the right side indicate full marks.*
- 3) Assume suitable data if necessary.*
- 4) All questions are compulsory.*

Q1) Solve any five

- a) Write a code in Python to display message "Hello World" [2]
- b) Why there is need of machine learning? [2]
- c) List basic operators used in Python. [2]
- d) State any 2 differences between Lists and Tuples. [2]
- e) What do you understand by function overloading in python? [2]
- f) Define the term 'Cognitive Intelligence'. [2]
- g) Identify the steps of KDD framework of machine Learning. [2]
- h) Explain the term 'Data Cleaning & Preparation' while working with Data in Python. [2]

Q2) Solve Any two.

- a) How to read and write files with open statement? Explain with example.[5]
- b) Explain anyone Supervised Learning algorithm. [5]
- c) Describe SEMMA process model of machine learning. [5]

P.T.O.

Q3) Solve any one

- a) Explain Supervised Learning technique using K-Nearest Neighbour method. **[10]**
- b) State and explain applications of supervised learning in any one domain which you know. **[10]**

Q4) Solve any one

- a) Elaborate the applications of unsupervised learning in marketing domain. **[10]**
- b) Distinguish between decision trees & linear regression technique with suitable example. **[10]**

Q5) Solve any one

- a) Write a Python code for calculating factorial of a given number. **[10]**
- b) How machine learning techniques will be useful for fraud analysis for credit card. Explain. **[10]**

