

Total No. of Questions : 5]

PC3054

SEAT No. :

[Total No. of Pages : 2

[6380]-3018

S.Y.M.B.A.

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

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) All question are compulsory.

**Q1)** Solve any five.

- a) Define variable in python with example? [2]
- b) Explain control statement 'For \_\_\_\_\_' in python with example. [2]
- c) State any two differences between List and set. [2]
- d) Define reinforcement learning. [2]
- e) Explain Numpy with example. [2]
- f) Write a python code to create a List. [2]
- g) What do you understand by function overloading in python. [2]
- h) Explain any two data types in python. [2]

**Q2)** Solve any two.

- a) Describe & explain CRISP-DM Model of machine learning. [5]
- b) Explain the concept of liner Regression with example. [5]
- c) Differentate supervised learning and unsupervised learning in machine learning. [5]

P.T.O.

Q3) Solve any one.

- a) Explain K-Nearest Neighbour algorithm in supervised learning technique. [10]
- b) Explain the decision tree algorithm with example. [10]

Q4) Solve any one.

- a) State and explain classification Algorithm in fraud detection analysis. [10]
- b) Elaborate the applications of unsupervised learning in marketing domain. [10]

Q5) Solve any one.

- a) Write a python code to display even numbers between 1 to 100. [10]
- b) Discuss applications of supervised learning in any five domains. [10]



Total No. of Questions : 5]

SEAT No. :  

[Total No. of Pages : 2]

P-7909

[6118]-3016

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

**305BA-SC-BA-04 : MACHINE LEARNING AND  
COGNITIVE INTELLIGENCE USING PYTHON**

**(2019 Pattern Revised) (Semester - III)**

*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)** Answer the following questions. (Any 5)

**[10]**

- a) Enlist any four python features.
- b) What do you mean by operator overloading?
- c) Find the basic operators in python?
- d) Define supervised machine learning.
- e) Recall any four features of cognitive intelligence.
- f) Define machine learning. Enlist its categories.
- g) What do you mean by classification in ML?
- h) What is pandas in python?

**Q2)** Answer the following questions. (Any 2)

**[10]**

- a) Differentiate between supervised and unsupervised learning.
- b) Explain KDD machine learning framework for building machine learning system.
- c) Differentiate between list, tuple, set and dictionary.

**P.T.O.**

**Q3) Answer the following questions. (Any 1)**

**[10]**

- a) Explain how regression analysis is used for making sales projections
- b) Explain the decision tree algorithm in machine learning with example.

**Q4) Answer the following questions. (Any 1)**

**[10]**

- a) Explain how K-mean clustering algorithm helps in market segmentation.
- b) Write a program program to print elements in reverse order.

**Q5) Answer the following questions. (Any 1)**

**[10]**

- a) Write python program to find factorial of a number entered by the user.
- b) A bank intends to group its loan applicants into high/medium/low risk based on attributes such as credit score, principal amount, annual income, debt to income ratio, etc. Explain how hierarchical clustering will be applicable?

~~~~~