19 Jan 2024

Total No. of Questions : 5]

SEAT No. :

P-7909

[Total No. of Pages : 2

[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?

19 Jan 2024

Total No. of Questions : 5]

SEAT No. :

P7962

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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.

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11 March 2023

Total No. of Questions : 5]

SEAT No. :

PA-3686

[Total No. of Pages : 2

[5946]- 318

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) Idenfity 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 facturial of a given number. **[10]**

b) How machine learning techniques will be useful for fraud analysis for credit card. Explain. **[10]**

Aug 2022

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[5860]-318

S.Y.M.B.A.

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

Q1) Solve any five:

a) State how to define variable in python? [2]

b) Identify any two features of machine learning. [2]

c) List various loops in python. [2]

d) List any two differences between lists and sets. [2]

e) What do you mean by operator overloading in python? [2]

f) Define the term cognitive intelligence. [2]

g) Identify the steps of CRISP - DM Methodology. [2]

h) What do you mean by data visualisation? [2]

Q2) Solve any two:

a) Describe Numpy Arrays. Explain with example. [5]

b) Distinguish between clustering and classification in machine learning. [5]

c) Discuss the Reinforcement learning with example. [5]

P.T.O.

Q3) Solve any one:

a) Explain the decision tree algorithm in machine learning with example. **[10]**

b) Explain the concept of simple and multiple regression. **[10]**

Q4) Solve any one:

a) Discuss how the clustering is useful in marketing domain? **[10]**

b) Analyse K - Nearest Neighbour algorithm for machine learning. **[10]**

Q5) Solve any one:

a) Design a code in python to print the following pattern. **[10]**

```
*
*   *
*   *   *
*   *   *   *
*   *   *   *   *
```

b) "Machine learning will make companies more efficient and allow them to streamline business processes of an organisation". Justify the statement. **[10]**