

Total No. of Questions : 5]

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S.Y.M.B.A.

404BA-SC-BA-06 : ARTIFICIAL INTELLIGENCE IN BUSINESS APPLICATIONS

(2019 Revised Pattern) (Semester - IV)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Neat diagram must be drawn wherever necessary.*
- 3) *Assume suitable data, if necessary.*

Q1) Answer any 5 out of 8 :

[10]

- a) Define the term entropy in decision tree learning.
- b) What is the primary objective of hill-climbing search?
- c) What are the elements of predicate logic?
- d) Define first order logic.
- e) State uniform-cost search.
- f) Define Complexity of Analytics.
- g) Define Data and Big Data.
- h) What is PROLOG?

Q2) Answer any 2 out of 3 :

[10]

- a) What is the difference between Depth-First Search and Breadth-First Search?
- b) What is the common way to represent and parse Grammars for natural language processing?
- c) Explain in detail A* searching technique with an example.

P.T.O.

Q3) Answer 3 (a) or 3 (b) :

a) Explain Clustering with an example.

[10]

OR

b) Discuss the Machine Learning Workflow.

[10]

Q4) Answer 4 (a) or 4 (b) :

a) What is Artificial Intelligence? Explain applications of Artificial Intelligence.

[10]

OR

b) What is NLP? What are the stages in NLP?

[10]

Q5) Answer 5 (a) or 5 (b) :

a) What are the applications of neural network?

[10]

OR

b) Explain any two informed searches.

[10]



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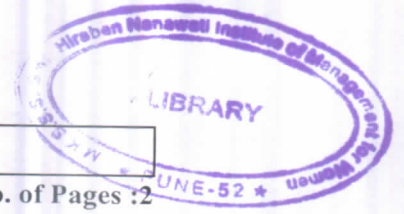
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SEAT No. :

[Total No. of Pages :2



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- 1) *All questions are compulsory.*
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Q1) Answer any 5 out of 8

[10]

- a) Define the term Semantic.
- b) What is the full form of ANN and DNN?
- c) What is Boltzmann Machine?
- d) Define Clustering.
- e) What is parsing?
- f) Define Data Analysis.
- g) Define the term "heuristic search".
- h) Define terms 'Fact' and 'Rule'.

Q2) Answer any 2 out of 3 :

[10]

- a) What is the difference between forward and backward chaining?
- b) What is the common way to represent and parse Grammars for natural language processing?
- c) Explain in detail DNN and its tools.

P.T.O.



Q3) Answer 3(a) or 3(b): [10]

a) Explain in brief k-Means Algorithm.

OR

b) Discuss the role of reasoning in AI. How predicate logic is used in AI to represent the knowledge? [10]

Q4) Answer 4(a) or 4(b):

a) Explain with an example Random Forest algorithm. [10]

OR

b) Define ANN and explain the basic structure of ANN. Give an example of a real-world application of neural networks. [10]

Q5) Answer 5(a) or 5(b):

a) Name one application area where knowledge-based systems are commonly used. Briefly explain how they assist in decision-making processes. [10]

OR

b) What is NLP? Explain in brief use cases of NLP? [10]