## University of Mumbai Examination 2020 under cluster 4 (PCE)

## Program: BE Computer Engineering

 Curriculum Scheme: Rev 2016Examination: Final Year Semester VII
Course Code: CSC703 and Course Name: AISC
Time: 1 hour
Max. Marks: 50

Q
Ability to learn how to do tasks based on the data given

A
A
A
A
Q for training or initial experience is called? M
Self Organization0
Adaptive Learning ..... 1
Fault tolerance ..... 0
Robustness ..... 0
Core of soft Computing is? ..... MA Fuzzy Networks and Artificial Intelligence0
A Fuzzy Computing, Neural Computing, Genetic Algorithms ..... 1
A Artificial Intelligence and Neural Science ..... 0
A Neural Science and Genetic Science ..... 0Q Which search comes under Local search ?MA* search0
BFS ..... 0A
Hill Climbing SearchA1
DFS ..... 0Q
State space landscape is a term used in ..... MA Local Search algorithm1
A Informed search algorithm ..... 0
A Uninformed search algorithm ..... 0
A Blind search algorithm ..... 0Memory space requirement in hill climbing algorithm is
Q
$\qquad$MA
Less1
A More ..... 0
A ..... 0A
Q
Zero ..... 0
$\qquad$ are the curves in the search space that leads to
sequence of local maxima ..... M
Plateau0
Ridges ..... 1
Peak ..... 0
Mount ..... 0
Which of the mentioned rules are valid Inference rules? ..... M
Modus Ponens ..... 1
addition ..... 0

| A | multiplication |  | 0 |
| :---: | :---: | :---: | :---: |
| A | subdivision |  | 0 |
| Q | Which of the mentioned point correctly defines a quantifier in AI? | M |  |
| A | Quantifiers are numbers ranging from 0-9. |  | 0 |
| A | Quantifiers are the quantity defining terms which are used |  | 1 |
| A | Quantifiers quantize the term between 0 and 1. |  | 0 |
| A | Quantifiers quantize the term between 10 and 100. |  | 0 |
| Q | What are not present in finish actions? | M |  |
| A | Preconditions |  | 0 |
| A | Effect |  | 1 |
| A | Finish |  | 0 |
| A | Cause |  | 0 |
| Q | Which is not Familiar Connectives in First Order Logic? M |  |  |
| A | and |  | 0 |
| A | iff |  | 1 |
| A | or |  | 0 |
| A | not |  | 0 |
| Q | Three main basic features involved in characterizing membership function are |  |  |
| A | Core, Support, Boundary |  | 1 |
| A | Fuzzy Algorithm, Neural network, Genetic Algorithm |  | 0 |
| A | Intution, Inference, Rank Ordering |  | 0 |
| A | Weighted Average, center of Sums, Median |  | 0 |
| Q | Fuzzy Logic is | M |  |
| A | Multi Valued Logic |  | 1 |
| A | Binary Logic |  | 0 |
| A | Crisp set Logic |  | 0 |
| A | Two level logic |  | 0 |
| Q | Given $\mathrm{U}=\{1,2,3,4,5,6,7\} \mathrm{A}=\{(3,0.3),(5,0.4),(6$, | M |  |
| A | $\{(2,1),(3,0.3),(4,1),(5,0.6),(7,1)$ |  | 0 |
| A | $\{(1,1),(2,1),(3,0.7),(4,1),(5,0.6),(7,1)\}$ |  | 1 |
| A | $\{(1,1)(2,1),(3,0.7),(4,0.4),(5,0.6),(6,1),(7,1)$ |  | 0 |
| A | $\{(3,0.7),(5,0.6)(6,1),(7,1)\}$ |  | 0 |
| Q | the points of fuzzy set A at which $\mu \mathrm{A}(\mathrm{x})=0.5$ are called $\quad \mathrm{M}$ |  |  |
| A | Boundary |  | 0 |
| A | core |  | 0 |
| A | crossover points |  | 1 |
| A | Support |  | 0 |
| Q | Fuzzy relation R is symmetric if ___ M | M |  |
| A | $\mu \mathrm{R}(\mathrm{xi}, \mathrm{xj})=\mu \mathrm{R}(\mathrm{xj}, \mathrm{xi})$ |  | 1 |
| A | $\mu R(x i, x i)=1$ |  | 0 |
| A | $\mu \mathrm{R}(\mathrm{xj}, \mathrm{xi})=\mu \mathrm{R}(\mathrm{xj}, \mathrm{xi})$ |  | 0 |
| A | $\mu R(x i, x i)=\mu R(x j, x j)$ |  | 0 |


| Q | Intersection Operation of two fuzzy set is given by $\qquad$ operation | M |  |
| :---: | :---: | :---: | :---: |
| A | max |  | 0 |
| A | abs |  | 0 |
| A | min |  | 1 |
| A | average |  | 0 |
| Q | Complement of Fuzzy set A is given by | M |  |
| A | $1+\mu \mathrm{A}(\mathrm{x})$ |  | 0 |
| A | $1 / \mu \mathrm{A}(\mathrm{x})$ |  | 0 |
| A | $2 * \mu \mathrm{~A}(\mathrm{x})$ |  | 0 |
| A | $1-\mu \mathrm{A}(\mathrm{x})$ |  | 1 |
| Q | $\qquad$ are designed to solve complex problems by reasoning about knowledge, represented primarily as if-then rules rather than through conventional procedural code. | M |  |
| A | neural network |  | 0 |
| A | Perceptrons |  | 0 |
| A | Expert systems |  | 1 |
| A | Quantization |  | 0 |
| Q | $\qquad$ is used for topology optimization i.e. to select number of hidden layers, number of hidden nodes and interconnection pattern for ANN. | M |  |
| A | Neuro-fuzzy system |  | 0 |
| A | Forward neural network |  | 0 |
| A | Neural network |  | 0 |
| A | Genetic algorithm |  | 1 |
| Q | What Perceptron is? M | M |  |
| A | a single layer feed-forward neural network with pre-proce: |  | 1 |
| A | an auto-associative neural network |  | 0 |
| A | a double layer auto-associative neural network |  | 0 |
| A | a neural network that contains feedback |  | 0 |
| Q | Signal transmission at synapse is a | M |  |
| A | Physical process |  | 0 |
| A | Chemical Procees |  | 1 |
| A | Biological process |  | 0 |
| A | Activation |  | 0 |
| Q | Backpropogation is applied for which type of network architecture | M |  |
| A | Single layer feed forward |  | 0 |
| A | Single layer feedback network |  | 0 |
| A | Multilayer feedback network |  | 0 |
| A | Multilayer feed forward network |  | 1 |
| Q | Why is the XOR problem exceptionally interesting to neural network researchers | M |  |
| A | Because it can be expressed in a way that allows you to us |  | 0 |
| A | Because it is complex binary operation that cannot be solv |  | 0 |
| A | Because it can be solved by a single layer perceptron |  | 0 |


| A | Because it is the simplest linearly inseparable problem tha |  |  |
| :--- | :--- | :--- | :--- |
| Q | The process of adjusting the weight is known as? | M |  |
| A | Activation |  | 0 |
| A | Synchronisation | 0 |  |
| A | Learning |  | 1 |
| A | Classification | 0 |  |
| Q | What is an activation value? | M |  |
| A | Weighted sum of inputs |  | 1 |
| A | Threshold value | 0 |  |
| A | Main input to neuron | 0 |  |
| A | Function | 0 |  |

