

Program: BE Information Technology

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: ITDLO7035 and Course Name: Soft Computing

Time: 1 hour

Max. Marks: 50

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Note to the students:- All the Questions are compulsory and carry equal marks .

Q1.	Fuzziness means _____
Option A:	Vagueness
Option B:	Clear
Option C:	Precise
Option D:	Certainty
Q2.	Conversion of a fuzzy set to single crisp value is called _____
Option A:	fuzzification
Option B:	defuzzification
Option C:	fuzzy logic
Option D:	fuzzy rule
Q3.	The height $h(A)$ of a fuzzy set A is defined as: $h(A) = \sup A(x)$
Option A:	$h(A) = 0$
Option B:	$h(A) < 0$
Option C:	$h(A) = 1$
Option D:	$h(A) < 1$
Q4.	The _____ are obtained by computing the minimum of the membership functions of the antecedents.
Option A:	rule base
Option B:	rule strengths
Option C:	rules
Option D:	rule wise
Q5.	_____ are pictorial representations to denote a set
Option A:	Flow chart
Option B:	Venn diagram
Option C:	DFD
Option D:	ER diagrams
Q6.	Where was fuzzy inference system been implemented?
Option A:	wireless services

Option B:	telephone lines
Option C:	video recording
Option D:	automatic control
Q7.	Artificial neural network is not used for
Option A:	Pattern Recognition
Option B:	Classification
Option C:	Clustering
Option D:	Microcontrollers
Q8.	What was the name of the first model which can perform weighted sum of inputs?
Option A:	McCulloch-pitts neuron model
Option B:	Marvin Minsky neuron model
Option C:	Hopfield model of neuron
Option D:	Rosenblatt
Q9.	The network that involves backward links from output to the input and hidden layers is called as :
Option A:	Self organizing maps
Option B:	Perceptrons
Option C:	Recurrent neural network
Option D:	Multi layered perceptron
Q10.	In the learning method, the target output is not presented to the network
Option A:	Supervised learning
Option B:	Unsupervised learning
Option C:	Reinforced learning
Option D:	Hebbian learning
Q11.	_____ learning follows “Winner takes all” strategy
Option A:	Stochastic learning
Option B:	Competitive learning
Option C:	Hebbian learning
Option D:	BackPropagation learning
Q12.	_____ is never assured of finding global minimum as in the simple layer delta rule case.
Option A:	Back propagation
Option B:	Front Propagation
Option C:	Propagation
Option D:	Forward Propagation
Q13.	How can learning process be stopped in backpropagation rule?
Option A:	there is convergence involved

Option B:	no heuristic criteria exist
Option C:	on basis of average gradient value
Option D:	no stopping criteria
Q14.	What type of inputs does ART – 1 receives?
Option A:	Bipolar
Option B:	Binary
Option C:	both bipolar and binary
Option D:	Unipolar
Q15.	In what type of learning does weight update during resonance occurs rapidly?
Option A:	Fast
Option B:	Slow
Option C:	Excess
Option D:	Medium
Q16.	_____ is a process in which a given bit pattern is transformed into another bit pattern by means of logical bit_wise operation.
Option A:	Inversion
Option B:	Conversion
Option C:	Masking
Option D:	Segregation
Q17.	The space for all possible feasible solutions is called _____
Option A:	Searching
Option B:	search space
Option C:	Area
Option D:	Population
Q18.	_____ exhibit non_linear functions to any desired degree of accuracy
Option A:	neuro –fuzzy
Option B:	neuro-genetic
Option C:	fuzzy –genetic
Option D:	fuzzy System
Q19.	Which of the following is not a hybrid system?
Option A:	auxiliary hybrid systems
Option B:	embedded hybrid systems
Option C:	sequential hybrid systems
Option D:	Parallel hybrid systems
Q20.	How can optimization be applied in images?
Option A:	by use of simulated annealing
Option B:	by attaching a feedback network
Option C:	by adding an additional hidden layer
Option D:	by attaching a feedforward network

Q21.	The role of the _____ system in handwriting recognition system is to identify the character.
Option A:	Preprocessing
Option B:	Segmentation
Option C:	Recognition
Option D:	Input
Q22.	In Genetic Algorithms, the _____ function is used to test the goodness of the solution.
Option A:	Fitness
Option B:	Recognition
Option C:	Segmentation
Option D:	Sigmoid
Q23.	In a neuro fuzzy system with Takagi and Sugino's approach, the firing strength of a rule is determined using
Option A:	Minimum operator
Option B:	Maximum operator
Option C:	Multiplication operator
Option D:	Division operator
Q24.	In a neuro fuzzy system with Mamdani approach, the final output for a set of inputs is determined by
Option A:	summing up the outputs of all the fired rules
Option B:	summing up the weighted outputs of all the fired rules
Option C:	using center of sums method
Option D:	using a multiplication operator
Q25.	A set with a single element is called _____
Option A:	Single set
Option B:	Singleton set
Option C:	1 set
Option D:	Power Set