Program: BE Computer Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: CSC703 and Course Name: Artificial Intelligence & Soft Computing

Time: 1 hour Max. Marks: 50

==========

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

Q1.	The performance of an agent can be improved by _____
Option A:	Learning
Option B:	Observing
Option C:	Perceiving
Option D:	Acting
Q2.	_____ is defined as a percept mapped to an action to be performed.
Option A:	Percept Sequence
Option B:	Agent Function
Option C:	Agent Program
Option D:	Percept History
Q3.	The _____ uses feedback from the critic on how the agent is doing and determines how the performance element should be modified to do better in the future.
Option A:	Feedback
Option B:	Learning Element
Option C:	Problem generator
Option D:	Utility module
Q4.	"For each possible percept sequence, an agent should select an action that is expected to maximize its performance measure, given the evidence provided by the percept sequence and whatever built-in knowledge the agent has." defines _____
Option A:	Rationality
Option B:	Simple-Reflex Agent
Option C:	Model Based agent
Option D:	Performance Measure
Q5.	What is state space?
Option A:	The whole problem
Option B:	Your Definition to a problem
Option C:	Problem you design
Option D:	Representing your problem with variable and parameter
Q6.	Heuristic used for A-star search Strategy is ____
Option A:	f(n)= g(n)+h(n)

Option B:	f(n)=g(n)
Option C:	f(n)=g(n)*h(n)
Option D:	f(n)=h(n)
Q7.	Which of the following does not help in measuring the performance of the Search strategy?
Option A:	Time Complexity
Option B:	Optimality
Option C:	Incompleteness
Option D:	Space Complexity
Q8.	. Which search is complete and optimal when h(n) is consistent?
Option A:	Best-first search
Option B:	Depth-first search
Option C:	Both Best-first & Depth-first search
Option D:	A* search
Q9.	Which is not the issue faced by Hill-Climbing:
Option A:	Local maxima
Option B:	Ridges
Option C:	Plateaux
Option D:	Global maximum
Q10.	Translate the following statement into FOL.
Option A:	or every a, if a is a philosopher, then a is a scholar"
Option B:	∀a philosopher(a) ®scholar(a)
Option C:	∃a scholar(a)®philosopher(a)
Option D:	∀a philosopher(a) ∧ ∃a scholar(a)
	∃a philosopher(a)® scholar(a)
Q11.	Knowledge and reasoning also play a crucial role in dealing with _____environment.
Option A:	Completely Observable
Option B:	Partially Observable
Option C:	Neither Completely nor Partially Observable
Option D:	Only Completely and Partially Observable
Q12.	Which process makes different logical expression looks identical?
Option A:	Lifting
Option B:	Unification
Option C:	Inference process
Option D:	Resolution
Q13.	These _____ are actually the assertions and should be anything relevant to the beginning state of the system.
Option A:	set of facts
Option B:	set of rules

Option C:	termination criterion
Option D:	Set of samples
Q14.	Forward chaining systems are _____ whereas backward chaining systems are _____
Option A:	Goal-driven, goal-driven
Option B:	Goal-driven, data-driven
Option C:	Data-driven, goal-driven
Option D:	Data-driven, data-driven
Q15.	The truth values of traditional set theory is _____ and that of fuzzy set is _____
Option A:	Either 0 or 1, between 0 & 1
Option B:	Between 0 & 1, either 0 or 1
Option C:	Between 0 & 1, between 0 & 1
Option D:	Either 0 or 1, either 0 or 1
Q16.	Each element of X is mapped to a value between 0 and 1. It is called _____.
Option A:	Membership value
Option B:	degree of truth
Option C:	Mapping function
Option D:	degree of probability
Q17.	Fuzzy logic is of the form _____
Option A:	Two-valued logic
Option B:	Crisp set logic
Option C:	Many-valued logic
Option D:	Binary set logic
Q18.	Automated vehicle is an example of _____
Option A:	Supervised learning
Option B:	Unsupervised learning
Option C:	Active learning
Option D:	Reinforcement learning
Q19.	In which of the following learning the teacher returns reward and punishment to learner?
Option A:	Active learning
Option B:	Reinforcement learning
Option C:	Supervised learning
Option D:	Unsupervised learning
Q20.	_____ in Unsupervised learning
Option A:	Specific output values are given
Option B:	Specific output values are not given
Option C:	No specific Inputs are given
Option D:	Both inputs and outputs are given

Q21.	The objective of backpropagation algorithm is -
Option A:	to develop learning algorithm for multilayer feedforward neural network
Option B:	to develop learning algorithm for single layer feedforward neural network
Option C:	to develop learning algorithm for multilayer feedforward neural network, so that network can be trained to capture the mapping implicitly
Option D:	to develop learning algorithm for perceptron network.
Q22.	Negative sign of weight indicates?
Option A:	Excitatory input
Option B:	inhibitory input
Option C:	excitatory output
Option D:	inhibitory output
Q23.	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:	Perceptron Model
Q24.	Which of the following is not component of Expert system?
Option A:	knowledge Acquisition
Option B:	Inference System
Option C:	Expert Interface
Option D:	Logic Block
Q25.	Which one is not Supervised Learning Algorithm
Option A:	Kohonen Self organizing map
Option B:	Feedback Network
Option C:	Perceptron Learning
Option D:	Delta Learning