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National University of Computer & Emerging Sciences
Artificial Intelligence (CS401)
Quiz#2

Dated: February 06, 2014   Marks: 20

Time: 20 min.   Std-ID: _____Sol_____

Question No. 1 Match the two columns. [1X10]

Column A	Column B
1. Percept Sequence	a. Goal Based agent (7)
2. Agent	b. Limited intelligence (6)
3. Sensors	c. Percept Input (3)
4. Feedback based action selections	d. Propositional logic (5)
5. Zero-order logic	e. World is indivisible (9)
6. Simple reflexive agent	f. History of Percept's of an agent (1)
7. Agent has an objective function	g. Agent Knows how the world evolve (10)
8. Actuators	h. Learning agent (4)
9. Atomic Representation	i. Architecture + Program (2)
10. Model Based Agent	j. Agents response to environment (8)

Question No. 2 Consider an intelligent activity of an agent as describe in the following task environment and give PEAS description? [2x5]

"An agent performing High Jump"

Performance measure	**Form, height, landing**
Environment	**Height Bar, Padded ground, judge, field**
Sensors	**Eyes, touch**
Actuators	**Form, length of legs, strength of legs, speed, flexibility**

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Question No. 1 Indicate whether True or False

1. An agent that senses only partial information about the state cannot be perfectly rational. F
2. A simple reflexive agent is the simplest type of agent possible. T
3. A simple reflexive agent cannot have limited intelligence. F
4. A simple reflexive agent can also work rationally in unobservable environment. F
5. Every agent function is implementable by some program/machine combination. F
6. It is possible for a given agent to be perfectly rational in two dissimilarly distinct task environments. F
7. Every agent is rational in a fully observable environment. F
8. A model based agent has more clearly precepts of a task environment. T
9. A goal-based agent has an explicit goal criterion that can be altered. T
10. In utility-based agent's architecture, an agent's utility function is essentially an internalization of the performance measure. T

Question No. 2 Compare the following pair of terms. [5 x 2]

(a)	Simple Reflexive Agent	Model Based Agent
	Simple reflex agents respond directly to percepts	Model-based reflex agents maintain internal state to track aspects of the world that are not evident in the current percept.
	It has limited intelligence	It is more responsive
	It has well define sequence of action	
(b)	Agent's Program	Agent's Function
	An agent program implements an agent's function.	It defines the activity of an agent.
	The response to a percept sequence is mainly coded in a program.	It is can be used to change the environment.