Artificial Intelligence & Expert Systems

Q&A

Correct choices are in **bold**

Which of the following contains	the output segments of Artificial	Intelligence programming?
---------------------------------	-----------------------------------	---------------------------

- a) Printed language and synthesized speech
- b) Manipulation of physical object
- c) Locomotion
- d) All of the mentioned

Strong	Artificial	intelligence	1S					
N 41	1 10	4 61		4 111	4 1	1 .1	0 / N .	

- a) the embodiment of human intellectual capabilities within a computer
- b) a set of computer programs that produce output that would be considered to reflect intelligence if it were generated by humans
- c) the study of mental faculties through the use of mental models implemented on a computer
- d) all of the mentioned

In which of the following situations might a blind search be acceptable?

- a) real-life situation
- b) complex game
- c) small search space
- d) all of the mentioned

What is Artificial intelligence?

- a) Putting your intelligence into Computer
- b) Programming with your own intelligence
- c) Making a Machine intelligent
- d) Playing a Game

Which search method takes less memory?

- a) Depth-First Search
- b) Breadth-First search
- c) Optimal search
- d) Linear Search

A heuristic is a way of trying

- a) To discover something or an idea embedded in a program
- b) To search and measure how far a node in a search tree seems to be from a goal
- c) To compare two nodes in a search tree to see if one is better than the other is
- d) All of the mentioned

How do you represent "All dogs have tails"?

- a) $\forall x : dog(x)$ (hastail(x)
- b) $\forall x: dog(x)$ (hastail(y)
- c) $\forall x: dog(y) (hastail(x))$
- d) $\forall x: dog(x)$ (hasàtail(x)

Which is not a property of representation of knowledge?

- a) Representational Verification
- b) Representational Adequacy
- c) Inferential Adequacy

d) Inferential Efficiency
A series of Artificial Intelligence systems, developed by Pat Langley to explore the role of heuristics in scientific discovery is a) RAMD b) BACON c) MIT d) DU
A.M. Turing developed a technique for determining whether a computer could or could not demonstrate the artificial Intelligence, Presently, this technique is called
A Personal Consultant knowledge base contain information in the form ofa) parameters b) contexts c) production rules d) all of the mentioned
Which of the following, is a component of an expert system? a) inference engine b) knowledge base c) user interface d) all of the mentioned
The performance of an agent can be improved by a) Learning b) Observing c) Perceiving d) None of the mentioned
External actions of the agent is selected by a) Perceive b) Performance c) Learning d) Actuator
The action of the Simple reflex agent completely depends upon a) Perception history b) Current perception c) Learning theory d) Utility functions
Which of the following could be the approaches to Artificial Intelligence? a) Strong Artificial Intelligence b) Weak Artificial Intelligence c) Applied Artificial Intelligence

d) All of the mentioned

The conference that launched the AI revolution in 1956 was held at? a) Dartmouth b) Harvard c) New York d) Stanford
One method of programming a computer to exhibit human intelligence is called modeling or
a) simulation b) cognitization c) duplication d) psychic amelioration
The Al researcher who co-authored both the Handbook of Artificial Intelligence and The Fifth Generation isa) Bruce Lee b) Randy Davis c) Ed Feigenbaum d) Mark Fox
Which of the following is being investigated as a means of automating the creation of a knowledge base? a) automatic knowledge acquisition b) simpler tools c) discovery of new concepts d) all of the mentioned
The CAI (Computer-Assisted Instruction) technique based on programmed instruction is
a) frame-based CAI b) generative CAI c) problem-solving CAI d) intelligent CAI
A robot's "arm" is also known as its a) end effector b) actuator c) manipulator d) servomechanism
Which of the following is true related to 'Satisfiable' property? a) A statement is satisfiable if there is some interpretation for which it is false b) A statement is satisfiable if there is some interpretation for which it is true c) A statement is satisfiable if there is no interpretation for which it is true d) A statement is satisfiable if there is no interpretation for which it is false
Two literals are complementary ifa) They are equal

- b) They are identical and of equal sign
- c) They are identical but of opposite sign
- d) They are unequal but of equal sign

Consider a good system for the representation of knowledge in a particular domain. What property should it possess?

- a) Representational Adequacy
- b) Inferential Adequacy
- c) Inferential Efficiency
- d) All of the mentioned

What is Transposition rule?

- a) From $P \rightarrow Q$, infer $\neg Q \rightarrow P$
- b) From $P \rightarrow Q$, infer $Q \rightarrow \neg P$
- c) From $P \rightarrow Q$, infer $Q \rightarrow P$
- d) From $P \rightarrow Q$, infer $\neg Q \rightarrow \neg P$

Third component of a planning system is to ____

- a) Detect when a solution has been found
- b) Detect when solution will be found
- c) Detect whether solution exists or not
- d) Detect whether multiple solutions exist

Which of the following is true in Statistical reasoning?

- a) The representation is extended to allow some kind of numeric measure of certainty to be associated with each statement
- b) The representation is extended to allow 'TRUE or FALSE' to be associated with each statement
- c) The representation is extended to allow some kind of numeric measure of certainty to be associated common to all statements
- d) The representation is extended to allow 'TRUE or FALSE' to be associated common to all statements

In default logic, which of the following inference rules of the form is allowed?

- a) (A : B) / C
- b) A / (B : C)
- c) A / B
- d) A / B : C

In Bayes theorem, what is meant by P(Hi|E)?

- a) The probability that hypotheses Hi is true given evidence E
- b) The probability that hypotheses Hi is false given evidence E
- c) The probability that hypotheses Hi is true given false evidence E
- d) The probability that hypotheses Hi is false given false evidence E

What is another type of Default reasoning?

- a) Monotonic reasoning
- b) Analogical reasoning
- c) Bitonic reasoning

d) Non-monotonic reasoning

- a) Ease with which the method can be adapted to different domains of application
- b) The average time required to construct the target knowledge structures from some specified initial structures
- c) A learning system to function with unreliable feedback and with a variety of training examples
- d) The overall power of the system

What is Machine learning?

- a) The autonomous acquisition of knowledge through the use of computer programs
- b) The autonomous acquisition of knowledge through the use of manual programs
- c) The selective acquisition of knowledge through the use of computer programs
- d) The selective acquisition of knowledge through the use of manual programs

Which of the factors affect the performance of learner system does not include?

- a) Representation scheme used
- b) Training scenario
- c) Type of feedback
- d) Good data structures

Different learning methods does not include?

- a) Memorization
- b) Analogy
- c) Deduction
- d) Introduction

In language understanding, the levels of knowledge that does not include?

- a) Phonological
- b) Syntactic
- c) Empirical
- d) Logical

What is a top-down parser?

- a) Begins by hypothesizing a sentence (the symbol S) and successively predicting lower level constituents until individual preterminal symbols are written
- b) Begins by hypothesizing a sentence (the symbol S) and successively predicting upper level constituents until individual preterminal symbols are written
- c) Begins by hypothesizing lower level constituents and successively predicting a sentence (the symbol S)
- d) Begins by hypothesizing upper level constituents and successively predicting a sentence (the symbol S)

What is the primary interactive method of communication used by humans?

- a) reading
- b) writing
- c) speaking
- d) all of the mentioned

Elementary linguistic units that are smaller than words are? a) allophones b) phonemes c) syllables d) all of the mentioned
A mouse device may be a) electro-chemical b) mechanical c) optical d) both mechanical and optical
Which instruments are used for perceiving and acting upon the environment? a) Sensors and Actuators b) Sensors c) Perceiver d) None of the mentioned
What is meant by agent's percept sequence? a) Used to perceive the environment b) Complete history of actuator c) Complete history of perceived things d) None of the mentioned
How many types of agents are there in artificial intelligence? a) 1 b) 2 c) 3 d) 4
What is the rule of simple reflex agent? a) Simple-action rule b) Condition-action rule c) Simple & Condition-action rule d) None of the mentioned

What are the composition for agents in artificial intelligence?

- a) Program
- b) Architecture
- c) Both Program & Architecture
- d) None of the mentioned

In which agent does the problem generator is present?

- a) Learning agentb) Observing agent
- c) Reflex agent
- d) None of the mentioned

Which agent deals with happy and unhappy states?

a) Simple reflex agent

- b) Model based agent
- c) Learning agent
- d) Utility based agent

Which action sequences are used to achieve the agent's goal?

- a) Search
- b) Plan
- c) Retrieve
- d) Both Search & Plan

Which element in the agent are used for selecting external actions?

- a) Perceive
- b) Performance
- c) Learning
- d) Actuator

Artificial Intelligence has its expansion in the following application.

- a) Planning and Scheduling
- b) Game Playing
- c) Diagnosis
- d) All of the mentioned

What is an 'agent'?

- a) Perceives its environment through sensors and acting upon that environment through actuators
- b) Takes input from the surroundings and uses its intelligence and performs the desired operations
- c) A embedded program controlling line following robot
- d) All of the mentioned

Agents behavior can be best described by

- a) Perception sequence
- b) Agent function
- c) Sensors and Actuators
- d) Environment in which agent is performing

Rational agent is the one who always does the right thing.

- a) True
- b) False

Performance Measures are fixed for all agents.

- a) True
- b) False

What is rational at any given time depends on?

- a) The performance measure that defines the criterion of success
- b) The agent's prior knowledge of the environment
- c) The actions that the agent can perform
- d) All of the mentioned

An omniscient agent knows the actual outcome of its actions and can act accordingly; but omniscience is impossible in reality. Rational Agent always does the right thing; but Rationality is possible in reality.

- a) True
- b) False

The Task Environment of an agent consists of

- a) Sensors
- b) Actuators
- c) Performance Measures
- d) All of the mentioned

What could possibly be the environment of a Satellite Image Analysis System?

- a) Computers in space and earth
- b) Image categorization techniques
- c) Statistical data on image pixel intensity value and histograms
- d) All of the mentioned

Categorize Crossword puzzle in Fully Observable / Partially Observable.

- a) Fully Observable
- b) partially Observable
- c) All of the mentioned
- d) None of the mentioned

The game of Poker is a single agent.

- a) True
- b) False

Satellite Image Analysis System is (Choose the one that is not applicable).

- a) Episodic
- b) Semi-Static
- c) Single agent
- d) Partially Observable

Which depends on the percepts and actions available to the agent?

- a) Agent
- b) Sensor
- c) Design problem
- d) None of the mentioned

Which were built in such a way that humans had to supply the inputs and interpret the outputs?

- a) Agents
- b) AI system
- c) Sensor
- d) Actuators

What is used for tracking uncertain events?

- a) Filtering algorithm
- b) Sensors

- c) Actuators
- d) None of the mentioned

What is not represented by using propositional logic?

- a) Objects
- b) Relations
- c) Both Objects & Relations
- d) None of the mentioned

Which functions are used as preferences over state history?

- a) Award
- b) Reward
- c) Explicit
- d) Implicit

Which kind of agent architecture should an agent an use?

- a) Relaxed
- b) Logic
- c) Relational
- d) All of the mentioned

Specify the agent architecture name that is used to capture all kinds of actions.

- a) Complex
- b) Relational
- c) Hybrid
- d) None of the mentioned

Which agent enables the deliberation about the computational entities and actions?

- a) Hybrid
- b) Reflective
- c) Relational
- d) None of the mentioned

What can operate over the joint state space?

- a) Decision-making algorithm
- b) Learning algorithm
- c) Complex algorithm
- d) Both Decision-making & Learning algorithm

What is the expansion if PEAS in task environment?

- a) Peer, Environment, Actuators, Sense
- b) Perceiving, Environment, Actuators, Sensors
- c) Performance, Environment, Actuators, Sensors
- d) None of the mentioned

What kind of observing environments are present in artificial intelligence?

- a) Partial
- b) Fully
- c) Learning

d) Both Partial & Fully

What kind of environment is strategic in artificial intelligence?

- a) Deterministic
- b) Rational
- c) Partial
- d) Stochastic

What kind of environment is crossword puzzle?

- a) Static
- b) Dynamic
- c) Semi Dynamic
- d) None of the mentioned