Artificial Intelligence Questions and Answers – History – 1

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “History – 1”.

1. In LISP, the function returns the list that results after the first element is removed (the rest f the list), is
a) car
b) last
c) cons
d) cdr
View Answer

Answer: d
Explanation: None.

2. Output segments of Artificial Intelligence programming contain(s)
a) Printed language and synthesized speech
b) Manipulation of physical object
c) Locomotion
d) All of the mentioned
View Answer

Answer: d
Explanation: None.

3. LISP was created by:
a) John McCarthy
b) Marvin Minsky
c) Alan Turing
d) Allen Newell and Herbert Simon
View Answer

Answer: a
Explanation: None.

4. Expert Ease was developed under the direction of:
a) John McCarthy
b) Donald Michie
c) Lofti Zadeh

d) Alan Turing
View Answer

Answer: b
Explanation: None.

5. An Artificial Intelligence system developed by Terry A. Winograd to permit an interactive dialogue about a domain he called blocks-world.
a) SHRDLU
b) SIMD
c) BACON
d) STUDENT
View Answer

Answer: a
Explanation: None.

6. MLMenu, a natural language interface for the TI Explorer, is similar to:
a) Ethernet
b) NaturalLink
c) PROLOG
d) The Personal Consultant
View Answer

Answer: b
Explanation: None.

7. Strong Artificial Intelligence is
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
View Answer

Answer: a
Explanation: None.

8. The traditional way to exit and LISP system is to enter
a) quit

b) exit
c) bye
d) ok
View Answer

Answer: b
Explanation: None.

Artificial Intelligence Questions and Answers – History – 2

This set of Artificial Intelligence Questions and Answers for Experienced people focuses on “History of AI – 2”.

1. 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
View Answer

Answer: b
Explanation: None.

2. 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) Turing Test
b) Algorithm
c) Boolean Algebra
d) Logarithm
View Answer

Answer: a
Explanation: None.

3. A Personal Consultant knowledge base contain information in the form of:
a) parameters
b) contexts

c) production rules
d) all of the mentioned
View Answer

Answer: d
Explanation: None.

4. Which approach to speech recognition avoids the problem caused by the variation in speech patterns among different speakers?
a) Continuous speech recognition
b) Isolated word recognition
c) Connected word recognition
d) Speaker-dependent recognition
View Answer

Answer: d
Explanation: None.

5. 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
View Answer

Answer: d
Explanation: None.

6. A computer vision technique that relies on image templates is:
a) edge detection
b) binocular vision
c) model-based vision
d) robot vision
View Answer

Answer: c
Explanation: None.

7. DARPA, the agency that has funded a great deal of American Artificial Intelligence research, is part of the Department of:
a) Defense

b) Energy
c) Education
d) Justice
View Answer

Answer: a
Explanation: None.

8. Which of these schools was not among the early leaders in Artificial Intelligence research?
a) Dartmouth University
b) Harvard University
c) Massachusetts Institute of Technology
d) Stanford University
View Answer

Answer: b
Explanation: None.

9. A certain Professor at the Stanford University coined the word ‘artificial intelligence’ in 1956 at a conference held at Dartmouth college. Can you name the Professor?
a) David Levy
b) John McCarthy
c) Joseph Weizenbaum
d) Hans Berliner
View Answer

Answer: b
Explanation: None.

10. In LISP, the function (copy-list <list>)
a) returns a new list that is equal to <list> by copying the top-level element of <list>
b) returns the length of <list>
c) returns t if <list> is empty
d) all of the mentioned
View Answer

Answer: a
Explanation: None.

11. Who is the “father” of artificial intelligence?
a) Fisher Ada
b) John McCarthy
c) Allen Newell
d) Alan Turning
View Answer

Answer: a
Explanation: None.

12. In 1985, the famous chess player David Levy beat a world champion chess program in four straight games by using orthodox moves that confused the program. What was the name of the chess program?
a) Kaissa
b) CRAY BLITZ
c) Golf
d) DIGDUG
View Answer

Answer: b
Explanation: None.

13. The explanation facility of an expert system may be used to:
a) construct a diagnostic model
b) expedite the debugging process
c) explain the system’s reasoning process
d) expedite the debugging process & explain the system’s reasoning process
View Answer

Answer: d
Explanation: None.

14. A process that is repeated, evaluated, and refined is called:
a) diagnostic
b) descriptive
c) interpretive
d) iterative
View Answer

Answer: d
Explanation: None.

15. Visual clues that are helpful in computer vision include:
a) color and motion
b) depth and texture
c) height and weight
d) color and motion, depth and texture
View Answer

Answer: d
Explanation: None.

Artificial Intelligence Questions and Answers – History – 3

This set of AI Interview Questions and Answers for freshers focuses on “History of AI – 3”.

1. The conference that launched the AI revolution in 1956 was held at:
a) Dartmouth
b) Harvard
c) New York
d) Stanford
View Answer

Answer: a
Explanation: None.

2. Texas Instruments Incorporated produces a low-cost LISP machine called:
a) The Computer-Based Consultant
b) The Explorer
c) Smalltalk
d) The Personal Consultant
View Answer

Answer: b
Explanation: None.

3. When a top-level function is entered, the LISP processor do(es)
a) It reads the function entered
b) It evaluates the function and the function's operands
c) It prints the results returned by the function
d) All of the mentioned
View Answer

Answer: d
Explanation: None.

4. One method of programming a computer to exhibit human intelligence is called modeling or:
a) simulation
b) cognitization
c) duplication
d) psychic amelioration
View Answer

Answer: a
Explanation: None.

5. Graphic interfaces were first used in a Xerox product called:
a) InterLISP
b) Ethernet
c) Smalltalk
d) ZetaLISP
View Answer

Answer: c
Explanation: None.

6. The Al researcher who co-authored both the Handbook of Artificial Intelligence and The Fifth Generation is:
a) Bruce Lee
b) Randy Davis
c) Ed Feigenbaum
d) Mark Fox
View Answer

Answer: c
Explanation: None.

8. 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
View Answer

Answer: a
Explanation: None.

Explanation: None.

10. KEE is a product of:
a) Teknowledge
b) IntelliCorpn
c) Texas Instruments
d) Tech knowledge
View Answer

Answer: b
Explanation: None.

11. In LISP, the function X (x). (2x+l) would be rendered as
a) (lambda (x) (+(*2 x)l))
b) (lambda (x) (+1 (* 2x)
c) (+ lambda (x) 1 (*2x))
d) (* lambda(x) (+2×1)
View Answer

Answer: a
Explanation: None.

12. A natural language generation program must decide:
a) what to say
b) when to say something
c) why it is being used
d) both what to say & when to say something
View Answer

Answer: a
Explanation: None.

13. The hardware features of LISP machines generally include:
a) large memory and a high-speed processor
b) letter-quality printers and 8-inch disk drives
c) a mouse and a specialized keyboard
d) large memory and a high-speed processor & a mouse and a specialized keyboard
View Answer

Answer: d
Explanation: None.

14. In which of the following areas may ICAI programs prove to be useful?
a) educational institutions
b) corporations
c) department of Defense
d) all of the mentioned
View Answer

Answer: a
Explanation: None.

5. A network with named nodes and labeled arcs that can be used to represent certain natural language grammars to facilitate parsing.
a) Tree Network
b) Star Network
c) Transition Network
d) Complete Network
View Answer

Answer: c
Explanation: None.

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Linguistics”.

1. 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
View Answer

Answer: b
Explanation: ‘Satisfiable’ property is a statement is satisfiable if there is some interpretation for which it is true.

2. Two literals are complementary if
a) 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
View Answer

Answer: c
Explanation: Two literals are complementary if They are identical but of opposite sign.

3. 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
View Answer

4. What is Transposition rule?
a) From $P \rightarrow Q$, infer $\sim Q \rightarrow P$
b) From $P \rightarrow Q$, infer $Q \rightarrow \sim P$
c) From $P \rightarrow Q$, infer $Q \rightarrow P$
d) From $P \rightarrow Q$, infer $\sim Q \rightarrow \sim P$
View Answer

Answer: d
Explanation: Transposition rule- From P → Q, infer ~Q → ~P.

5. 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
View Answer

Answer: a
Explanation: Third component of a planning system is to detect when a solution has been found.

6. 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
View Answer

Answer: a
Explanation: Statistical reasoning is the representation is extended to allow some kind of numeric measure of certainty to be associated with each statement.

7. In default logic, we allow inference rules of the form
a) (A : B) / C
b) A / (B : C)
c) A / B
d) A / B : C
View Answer

Answer: a
Explanation: In default logic, we allow inference rules of the form:(A : B) / C.

8. In Bayes theorem, what is the 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
View Answer

Answer: a
Explanation: In Bayes theorem, P(Hi|E) is the probability that hypotheses Hi is true given evidence E.

9. Default reasoning is another type of
a) Monotonic reasoning
b) Analogical reasoning
c) Bitonic reasoning
d) Non-monotonic reasoning
View Answer

Answer: d
Explanation: Default reasoning is another type of non-monotonic reasoning.

10. Generality is the measure of
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
View Answer

Answer: a
Explanation: Generality is the measure of ease with which the method can be adapted to different domains of application.

Artificial Intelligence Questions and Answers – Linguistics

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Linguistics”.

1. 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
View Answer

Answer: b
Explanation: ‘Satisfiable’ property is a statement is satisfiable if there is some interpretation for which it is true.

2. Two literals are complementary if
a) 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
View Answer

Answer: c
Explanation: Two literals are complementary if They are identical but of opposite sign.

3. 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
View Answer

4. What is Transposition rule?
a) From $P \rightarrow Q$, infer $\sim Q \rightarrow P$
b) From $P \rightarrow Q$, infer $Q \rightarrow \sim P$
c) From $P \rightarrow Q$, infer $Q \rightarrow P$
d) From $P \rightarrow Q$, infer $\sim Q \rightarrow \sim P$
View Answer

Answer: d
Explanation: Transposition rule- From $P \rightarrow Q$, infer $\sim Q \rightarrow \sim P$.

5. 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
View Answer

Answer: a
Explanation: Third component of a planning system is to detect when a solution has been found.

6. 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
View Answer

Answer: a
Explanation: Statistical reasoning is the representation is extended to allow some kind of numeric measure of certainty to be associated with each statement.

7. In default logic, we allow inference rules of the form
a) (A : B) / C
b) A / (B : C)
c) A / B
d) A / B : C
View Answer

Answer: a
Explanation: In default logic, we allow inference rules of the form:(A : B) / C.

8. In Bayes theorem, what is the 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
View Answer

Answer: a
Explanation: In Bayes theorem, P(Hi|E) is the probability that hypotheses Hi is true given evidence E.

9. Default reasoning is another type of
a) Monotonic reasoning
b) Analogical reasoning
c) Bitonic reasoning
d) Non-monotonic reasoning
View Answer

Answer: d
Explanation: Default reasoning is another type of non-monotonic reasoning.

10. Generality is the measure of
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
View Answer

Answer: a
Explanation: Generality is the measure of ease with which the method can be adapted to different domains of application.

Artificial Intelligence Questions and Answers – Facts – 1

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Facts – 1”.

1. When talking to a speech recognition program, the program divides each second of your speech into 100 separate:
a) Codes
b) Phonemes
c) Samples
d) Words
View Answer

Answer: c
Explanation: None.

2. Which term is used for describing the judgmental or commonsense part of problem solving?
a) Heuristic
b) Critical
c) Value based
d) Analytical
View Answer

Answer: a
Explanation: None.

3. Which stage of the manufacturing process has been described as “the mapping of function onto form”?
a) Design
b) Distribution
c) Project management
d) Field service
View Answer

Answer: a
Explanation: None.

4. Which kind of planning consists of successive representations of different levels of a plan?
a) hierarchical planning
b) non-hierarchical planning
c) all of the mentioned
d) project planning
View Answer

Answer: a
Explanation: None.

5. What was originally called the “imitation game” by its creator?
a) The Turing Test
b) LISP
c) The Logic Theorist
d) Cybernetics
View Answer

Answer: a
Explanation: None.

6. Decision support programs are designed to help managers make:
a) budget projections
b) visual presentations
c) business decisions
d) vacation schedules
View Answer

Answer: c
Explanation: None.

7. PROLOG is an AI programming language, which solves problems with a form of symbolic logic known as predicate calculus. It was developed in 1972 at the University of Marseilles by a team of specialists. Can you name the person who headed this team?
a) Alain Colmerauer
b) Niklaus Wirth
c) Seymour Papert
d) John McCarthy
View Answer

Answer: a
Explanation: None.

8. Programming a robot by physically moving it through the trajectory you want it to follow be called:
a) contact sensing control
b) continuous-path control
c) robot vision control

d) pick-and-place control
View Answer

Answer: b
Explanation: None.

9. To invoke the LISP system, you must enter
a) AI
b) LISP
c) CL (Common Lisp)
d) Both LISP and CL
View Answer

Answer: b
Explanation: None.

10. In LISP, the function (list-length <list>)
a) returns a new list that is equal to &lt:list> by copying the top-level element of <list>
b) returns the length of <list>
c) returns t if <list> is empty
d) all of the mentioned
View Answer

Answer: b
Explanation: None.

11. ART (Automatic Reasoning Tool) is designed to be used on:
a) LISP machines
b) Personal computers
c) Microcomputers
d) All of the mentioned
View Answer

Answer: a
Explanation: None.

12. Which particular generation of computers is associated with artificial intelligence?
a) Second
b) Fourth

c) Fifth
d) Third
View Answer

Answer: c
Explanation: None.

13. Shaping teaching techniques to fit the learning patterns of individual students is the goal of:
a) decision support
b) automatic programming
c) intelligent computer-assisted instruction
d) expert systems
View Answer

Answer: c
Explanation: None.

14. Which of the following function returns t If the object is a symbol m LISP?
a) (* <object>)
b) (symbolp <object>)
c) (nonnumeric <object>)
d) (constantp <object>)
View Answer

Answer: b
Explanation: None.

15. The symbols used in describing the syntax of a programming language are
a) 0
b) {}
c) “”
d) <>
View Answer

Answer: d
Explanation: None.

Artificial Intelligence Questions and Answers – Facts – 2

This set of Artificial Intelligence Questions and Answers for Freshers focuses on "Facts – 2".

1. Ambiguity may be caused by:
a) syntactic ambiguity
b) multiple word meanings
c) unclear antecedents
d) all of the mentioned
View Answer

Answer: d
Explanation: None.

2. Which company offers the LISP machine considered "the most powerful symbolic processor available"?
a) LMI
b) Symbolics
c) Xerox
d) Texas Instruments
View Answer

Answer: b
Explanation: None.

3. What of the following is considered a pivotal event in the history of Artificial Intelligence?
a) 1949, Donald O, The organization of Behavior
b) 1950, Computing Machinery and Intelligence
c) 1956, Dartmouth University Conference Organized by John McCarthy
d) 1961, Computer and Computer Sense
View Answer

Answer: c
Explanation: None.

4. Natural language processing is divided into the two subfields of:
a) symbolic and numeric
b) time and motion

c) algorithmic and heuristic
d) understanding and generation
View Answer

Answer: c
Explanation: None.

5. High-resolution, bit-mapped displays are useful for displaying:
a) clearer characters
b) graphics
c) more characters
d) all of the mentioned
View Answer

Answer: c
Explanation: None.

6. A bidirectional feedback loop links computer modeling with:
a) artificial science
b) heuristic processing
c) human intelligence
d) cognitive science
View Answer

Answer: c
Explanation: None.

7. Which of the following have people traditionally done better than computers?
a) recognizing relative importance
b) finding similarities
c) resolving ambiguity
d) all of the mentioned
View Answer

Answer: c
Explanation: None.

8. In LISP, the function evaluates both and is
a) set
b) setq
c) add

d) eva
View Answer

Answer: a
Explanation: None.

9. Which type of actuator generates a good deal of power but tends to be messy?
a) electric
b) hydraulic
c) pneumatic
d) both hydraulic & pneumatic
View Answer

Answer: b
Explanation: None.

10. Research scientists all over the world are taking steps towards building computers with circuits patterned after the complex interconnections existing among the human brain's nerve cells. What name is given to such type of computers?
a) Intelligent computers
b) Supercomputers
c) Neural network computers
d) Smart computers
View Answer

Answer: c
Explanation: None.

11. The integrated circuit was invented by Jack Kilby of:
a) MIT
b) Texas Instruments
c) Xerox
d) All of the mentioned
View Answer

Answer: b
Explanation: None.

12. People overcome natural language problems by:
a) grouping attributes into frames
b) understanding ideas in context
c) identifying with familiar situations
d) both understanding ideas in context & identifying with familiar situations
View Answer

Answer: d
Explanation: None.

13. The Cedar, BBN Butterfly, Cosmic Cube and Hypercube machine can be characterized as
a) SISD
b) MIMD
c) SIMD
d) MISD
View Answer

Answer: b
Explanation: None.

14. A series of AI systems, developed by Pat Langley to explore the role of heuristics in scientific discovery is _____
a) RAMD
b) BACON
c) MIT
d) DU
View Answer

Answer: b
Explanation: None.

Artificial Intelligence Questions and Answers – Facts – 3

This set of Artificial Intelligence Interview Questions and Answers focuses on “Facts – 3”.

1. Nils Nilsson headed a team at SRI that created a mobile robot named:
a) Robotics
b) Dedalus
c) Shakey
d) Vax
View Answer

Answer: c
Explanation: None.

2. An Artificial Intelligence technique that allows computers to understand associations and relationships between objects and events is called:
a) heuristic processing
b) cognitive science
c) relative symbolism
d) pattern matching
View Answer

Answer: c
Explanation: None.

3. The new organization established to implement the Fifth Generation Project is called:
a) ICOT (Institute for New Generation Computer Technology)
b) MITI (Ministry of International Trade and Industry)
c) MCC (Microelectronics and Computer Technology Corporation)
d) SCP (Strategic Computing Program)
View Answer

Answer: a
Explanation: None.

4. The field that investigates the mechanics of human intelligence is:
a) history
b) cognitive science
c) psychology
d) sociology
View Answer

Answer: b
Explanation: None.

5. What is the name of the computer program that simulates the thought processes of human beings?
a) Human logic
b) Expert reason
c) Expert system
d) Personal information
View Answer

Answer: c
Explanation: None.

6. What is the name of the computer program that contains the distilled knowledge of an expert?
a) Database management system
b) Management information System
c) Expert system
d) Artificial intelligence
View Answer

Answer: c
Explanation: None.

7. Claude Shannon described the operation of electronic switching circuits with a system of mathematical logic called:
a) LISP
b) XLISP
c) Neural networking
d) Boolean algebra
View Answer

Answer: c
Explanation: None.

8. A computer program that contains expertise in a particular domain is called an:
a) intelligent planner
b) automatic processor
c) expert system
d) operational symbolizer
View Answer

Answer: c
Explanation: None.

9. What is the term used for describing the judgmental or commonsense part of problem solving?
a) Heuristic
b) Critical
c) Value based
d) Analytical
View Answer

Answer: a
Explanation: None.

10. What was originally called the “imitation game” by its creator?
a) The Turing Test
b) LISP
c) The Logic Theorist
d) Cybernetics
View Answer

Answer: a
Explanation: None.

11. Decision support programs are designed to help managers make:
a) budget projections
b) visual presentations
c) business decisions
d) vacation schedules
View Answer

Answer: c
Explanation: None.

12. Programming a robot by physically moving it through the trajectory you want it to follow is called:
a) contact sensing control
b) continuous-path control
c) robot vision control

d) pick-and-place control
View Answer

Answer: b
Explanation: None.

Artificial Intelligence Questions and Answers – Facts – Human-machine interaction

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Facts – Human-machine interaction”.

1. The primary interactive method of communication used by humans is:
a) reading
b) writing
c) speaking
d) all of the mentioned
View Answer

Answer: c
Explanation: None.

2. Elementary linguistic units which are smaller than words are:
a) allophones
b) phonemes
c) syllables
d) all of the mentioned
View Answer

3. In LISP, the atom that stands for “true” is
a) t
b) ml
c) y
d) time
View Answer

Answer: a
Explanation: None.

4. A mouse device may be:
a) electro-chemical
b) mechanical
c) optical
d) both mechanical and optical
View Answer

Answer: d
Explanation: None.

Explanation: None.

6. Arthur Samuel is linked inextricably with a program that played:
a) checkers
b) chess
c) cricket
d) football
View Answer

Answer: a
Explanation: None.

7. Natural language understanding is used in:
a) natural language interfaces
b) natural language front ends
c) text understanding systems
d) all of the mentioned
View Answer

Answer: d
Explanation: None.

8. Which of the following are examples of software development tools?
a) debuggers
b) editors
c) assemblers, compilers and interpreters
d) all of the mentioned
View Answer

Answer: d
Explanation: None.

9. The first AI programming language was called:
a) BASIC
b) FORTRAN
c) IPL(Inductive logic programming)
d) LISP
View Answer

Answer: d
Explanation: None.

10. The Personal Consultant is based on:
a) EMYCIN
b) OPS5+
c) XCON
d) All of the mentioned
View Answer

Answer: d
Explanation: None.

Artificial Intelligence Questions and Answers – Machine Learning

Artificial Intelligence Questions and Answers – Game Theory

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Game Theory”.

1. General games involves
a) Single-agent
b) Multi-agent
c) Neither Single-agent nor Multi-agent

d) Only Single-agent and Multi-agent
View Answer

Answer: d
Explanation: Depending upon games it could be single agent (Sudoku) or multi-agent (Chess)

2. Adversarial search problems uses
a) Competitive Environment
b) Cooperative Environment
c) Neither Competitive nor Cooperative Environment
d) Only Competitive and Cooperative Environment
View Answer

Answer: a
Explanation: Since in cooperative environment agents' goals are I conflicts. They compete for goal.

3. Mathematical game theory, a branch of economics, views any multi-agent environment as a game provided that the impact of each agent on the others is "significant," regardless of whether the agents are cooperative or competitive.
a) True
b) False
View Answer

Answer: a
Explanation: None.

4. Zero sum games are the one in which there are two agents whose actions must alternate and in which the utility values at the end of the game are always the same.
a) True
b) False
View Answer

Answer: b
Explanation: Utility values are always same and opposite.

5. Zero sum game has to be a _____ game.
a) Single player
b) Two player
c) Multiplayer

d) Three player
View Answer

Answer: c
Explanation: Zero sum games could be multiplayer games as long as the condition for zero sum game is satisfied.

6. A game can be formally defined as a kind of search problem with the following components:
a) Initial State
b) Successor Function
c) Terminal Test
d) All of the mentioned
View Answer

Answer: d
Explanation: The initial state includes the board position and identifies the player to move. A successor function returns a list of (move, state) pairs, each indicating a legal move and the resulting state. A terminal test determines when the game is over. States where the game has ended are called terminal states. A utility function (also called an objective function or payoff function), which gives a numeric value for the terminal states. In chess, the outcome is a win, lose, or draw, with values +1, -1, or 0.

7. The initial state and the legal moves for each side define the _____ for the game.
a) Search Tree
b) Game Tree
c) State Space Search
d) Forest
View Answer

Answer: b
Explanation: An example of game tree for Tic-Tac-Toe game.

8. General algorithm applied on game tree for making decision of win/lose is _____
a) DFS/BFS Search Algorithms
b) Heuristic Search Algorithms

c) Greedy Search Algorithms
d) MIN/MAX Algorithms
View Answer

Answer: d
Explanation: Given a game tree, the optimal strategy can be determined by examining the min/max value of each node, which we write as MINIMAX-VALUE(n). The min/max value of a node is the utility (for MAX) of being in the corresponding state, assuming that both players play optimally from there to the end of the game. Obviously, the min/max value of a terminal state is just its utility. Furthermore, given a choice, MAX will prefer to move to a state of maximum value, whereas MIN prefers a state of minimum value.

9. The minimax algorithm (Figure 6.3) computes the minimax decision from the current state. It uses a simple recursive computation of the minimax values of each successor state, directly implementing the defining equations. The recursion proceeds all the way down to the leaves of the tree, and then the minimax values are backed up through the tree as the recursion unwinds.
a) True
b) False
View Answer

Answer: a
Explanation: Refer definition of minimax algorithm.

10. The complexity of minimax algorithm is
a) Same as of DFS
b) Space – bm and time – bm
c) Time – bm and space – bm
d) Same as BFS
View Answer

Answer: a
Explanation: Same as DFS.

Artificial Intelligence Questions & Answers – Alpha Beta Pruning

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Alpha Beta Pruning”.

1. Which search is equal to minimax search but eliminates the branches that can’t influence the final decision?
a) Depth-first search
b) Breadth-first search
c) Alpha-beta pruning
d) None of the mentioned
View Answer

Answer: c
Explanation: The alpha-beta search computes the same optimal moves as minimax, but eliminates the branches that can’t influence the final decision.

2. Which values are independant in minimax search algorithm?
a) Pruned leaves x and y
b) Every states are dependant
c) Root is independant
d) None of the mentioned
View Answer

Answer: a
Explanation: The minimax decision are independant of the values of the pruned values x and y because of the root values.

3. To which depth does the alpha-beta pruning can be applied?
a) 10 states
b) 8 States
c) 6 States
d) Any depth
View Answer

Answer: d
Explanation: Alpha–beta pruning can be applied to trees of any depth and it is possible to prune entire subtree rather than leaves.

4. Which search is similar to minimax search?
a) Hill-climbing search
b) Depth-first search
c) Breadth-first search

d) All of the mentioned
View Answer

Answer: b
Explanation: The minimax search is depth-first search, So at one time we just have to consider the nodes along a single path in the tree.

5. Which value is assigned to alpha and beta in the alpha-beta pruning?
a) Alpha = max
b) Beta = min
c) Beta = max
d) Both Alpha = max & Beta = min
View Answer

Answer: d
Explanation: Alpha and beta are the values of the best choice we have found so far at any choice point along the path for MAX and MIN.

6. Where does the values of alpha-beta search get updated?
a) Along the path of search
b) Initial state itself
c) At the end
d) None of the mentioned
View Answer

Answer: a
Explanation: Alpha-beta search updates the value of alpha and beta as it gets along and prunes the remaining branches at node.

7. How the effectiveness of the alpha-beta pruning gets increased?
a) Depends on the nodes
b) Depends on the order in which they are executed
c) All of the mentioned
d) None of the mentioned
View Answer

Answer: a
Explanation: None.

8. What is called as transposition table?
a) Hash table of next seen positions

b) Hash table of previously seen positions
c) Next value in the search
d) None of the mentioned
View Answer

Answer: b
Explanation: Transposition is the occurrence of repeated states frequently in the search.

9. Which is identical to the closed list in Graph search?
a) Hill climbing search algorithm
b) Depth-first search
c) Transposition table
d) None of the mentioned
View Answer

Answer: c
Explanation: None.

10. Which function is used to calculate the feasibility of whole game tree?
a) Evaluation function
b) Transposition
c) Alpha-beta pruning
d) All of the mentioned
View Answer

Answer: a
Explanation: Because we need to cut the search off at some point and apply an evaluation function that gives an estimate of the utility of the state.

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Semantic Net – 1”.

1. What among the following constitutes to the representation of the knowledge in different forms?
a) Relational method where each fact is set out systematically in columns
b) Inheritable knowledge where relational knowledge is made up of objects
c) Inferential knowledge
d) All of the mentioned
View Answer

Answer: d
Explanation: None.

2. Semantic Networks is
a) A way of representing knowledge
b) Data Structure
c) Data Type
d) None of the mentioned
View Answer

Answer: a
Explanation: None.

3. Graph used to represent semantic network is,
a) Undirected graph
b) Directed graph
c) Directed Acyclic graph (DAG)
d) Directed complete graph
View Answer

Answer: b
Explanation: Semantic Network is a directed graph consisting of vertices, which represent concepts and edges, which represent semantic relations between the concepts.

4. Following are the Semantic Relations used in Semantic Networks.
a) Meronymy
b) Holonymy
c) Hyponymy

d) All of the mentioned
View Answer

Answer: d
Explanation: None.

5. Meronymy relation means,
a) A is part of B
b) B has A as a part of itself
c) A is a kind of B
d) A is superordinate of B
View Answer

Answer: a
Explanation: A meronym denotes a constituent part of, or a member of something. That is,
“X” is a meronym of “Y” if Xs are parts of Y(s), or
“X” is a meronym of “Y” if Xs are members of Y(s).

6. Hypernym relation means,
a) A is part of B
b) B has A as a part of itself
c) A is a kind of B
d) A is superordinate of B
View Answer

Answer: d
Explanation: In linguistics, a hyponym is a word or phrase whose semantic field is included within that of another word, its hypernym (sometimes spelled hypernym outside of the natural language processing community). In simpler terms, a hyponym shares a type-of relationship with its hypernym.

7. Holonymy relation means,
a) A is part of B
b) B has A as a part of itself
c) A is a kind of B
d) A is superordinate of B
View Answer

Answer: b
Explanation: Holonymy (in Greek holon = whole and onoma = name) is a semantic

relation. Holonymy defines the relationship between a term denoting the whole and a term denoting a part of, or a member of, the whole. That is,
‘X’ is a holonym of ‘Y’ if Ys are parts of Xs, or
‘X’ is a holonym of ‘Y’ if Ys are members of Xs.

8. The basic inference mechanism in semantic network is to follow the links between the nodes.
a) True
b) False
View Answer

Answer: a
Explanation: None.

9. There exists two way to infer using semantic networks.
1) Intersection Search
2) Inheritance Search
a) True
b) False
View Answer

Answer: a
Explanation: None.

Artificial Intelligence Questions and Answers – Semantic Net – 2

This set of Artificial Intelligence (AI) Question Bank focuses on “Semantic Net – 2”.

1. Following is an extension of the semantic network.
a) Expert Systems
b) Rule Based Expert Systems
c) Decision Tree Based networks
d) Partitioned Networks
View Answer

Answer: d
Explanation: None.

2. Basic idea of an partitioned nets is to break network into spaces which consist of groups of nodes and arcs and regard each space as a node.
a) True
b) False
View Answer

Answer: a
Explanation: None.

3. Semantic Network represents
a) Syntactic relation between concepts
b) Semantic relations between concepts
c) All of the mentioned
d) None of the mentioned
View Answer

Answer: b
Explanation: None.

4. A semantic network is used when one has knowledge that is best understood as a set of concepts that are related to one another.
a) True
b) False
View Answer

Answer: a
Explanation: None.

5. What are the limitations of the semantic networks?
a) Intractability
b) Lack in expressing some of the properties
c) Incomplete
d) Has memory constraints
View Answer

Answer: b
Explanation: None.

6. What among the following is/are the best example of semantic networks?
a) Wordnet
b) Human Food Chain
c) MYSIN
d) Autonomous car driver
View Answer

Answer: a
Explanation: Wordnet is a lexical database of English.

7. Semantic Network is also known as Frame networks.
a) True
b) False
View Answer

Answer: a
Explanation: None.

8. Synonymy relation means,
a) A is part of B
b) A denotes same as B
c) A is a kind of B
d) A is superordinate of B
View Answer

Answer: b
Explanation: None.

9. Antonymy relation means,
a) A is part of B
b) B has A as a part of itself
c) A denotes opposite of B
d) A is superordinate of B
View Answer

Answer: c
Explanation: None.

10. Most semantic networks are not cognitive based.
a) True

b) False
View Answer

Answer: b
Explanation: None.

Artificial Intelligence Questions and Answers – Frames

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Frames”.

1. Frames is
a) A way of representing knowledge
b) Data Structure
c) Data Type
d) None of the mentioned
View Answer

Answer: a
Explanation: None.

2. Frames in artificial intelligence is derived from semantic nets.
a) True
b) False
View Answer

Answer: a
Explanation: A frame is an artificial intelligence data structure used to divide knowledge into substructures by representing “stereotyped situations.”.

3. Following are the elements, which constitutes to the frame structure.
a) Facts or Data
b) Procedures and default values
c) Frame names
d) Frame reference in hierarchy
View Answer

Answer: a
Explanation: None.

4. Like semantic networks, frames can be queried using spreading activation.
a) True

b) False
View Answer

Answer: a
Explanation: None.

5. Hyponymy relation means,
a) A is part of B
b) B has A as a part of itself
c) A is subordinate of B
d) A is superordinate of B
View Answer

Answer: c
Explanation: In linguistics, a hyponym is a word or phrase whose semantic field is included within that of another word, its hypernym (sometimes spelled hypernym outside of the natural language processing community). In simpler terms, a hyponym shares a type-of relationship with its hypernym..

6. The basic inference mechanism in semantic network in which knowledge is represented as Frames is to follow the links between the nodes.
a) True
b) False
View Answer

Answer: a
Explanation: None.

7. There exists two way to infer using semantic networks in which knowledge is represented as Frames.
1) Intersection Search
2) Inheritance Search
a) True
b) False
View Answer

Answer: a
Explanation: None.

Artificial Intelligence Questions & Answers – Unification and Lifting

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Unification and Lifting”.

1. What is the process of capturing inference process as a single inference rule?
a) Ponens
b) Clauses
c) Generalized Modus Ponens
d) Variables
View Answer

Answer: c
Explanation: All kinds of inference process can be captured as a single inference rule that can be called as Generalized modus ponens.

2. Which process makes different logical expression looks identical?
a) Lifting
b) Unification
c) Inference process
d) None of the mentioned
View Answer

Answer: b
Explanation: Lifted inference rules require finding substitutions that make different logical expression looks identical. This process is called unification.

3. Which algorithm takes two sentences and returns an unifier?
a) Inference
b) Hill-climbing search
c) Depth-first search
d) Unify algorithm
View Answer

Answer: d
Explanation: The unify algorithm takes two sentences and returns an unifier if there is one in the sentence.

4. Which is a lifted version of modus ponens?
a) Generalized modus ponens
b) Inference

c) Clauses
d) None of the mentioned
View Answer

Answer: a
Explanation: Generalized modus ponens is a lifted version of modus ponens because it raises modus ponens from propositional to first-order logic.

5. Which is unique up to renaming of variables?
a) Unifier
b) Most general unifier
c) Unifier & Most general unifier
d) None of the mentioned
View Answer

Answer: b
Explanation: For every unifiable pair of expressions, there is a single most general unifier that is unique up to renaming of variables.

6. Which makes the complexity of the entire algorithm quadratic in the size?
a) Clause
b) Inference
c) Resolution
d) Occur check
View Answer

Answer: d
Explanation: Occur check makes the complexity of the entire algorithm quadratic in the size of the expressions being unified.

7. How many functions are available in the unification and lifting process?
a) 1
b) 2
c) 3
d) 4
View Answer

Answer: d
Explanation: The four functions are available in the unification and lifting process are tell, ask, store and fetch.

8. Where did all the facts are stored to implement store and fetch function?
a) Database
b) Knowledge base
c) Datamart
d) All of the mentioned
View Answer

Answer: b
Explanation: The simplest way to implement store and fetch functions is to keep all the facts in the knowledge base in one long list.

9. What is meant by predicate indexing?
a) All the one kind of facts in one bucket and another kind in other bucket
b) Acts like index for facts
c) All of the mentioned
d) None of the mentioned
View Answer

Answer: a
Explanation: None.

10. How the buckets are stored in predicate indexing?
a) Lists
b) Stack
c) Hashes
d) None of the mentioned
View Answer

Answer: c
Explanation: The buckets can be stored in a hash table for efficient access.

Artificial Intelligence Questions and Answers – Partial Order Planning

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Partial Order Planning”.

1. The process by which the brain incrementally orders actions needed to complete a specific task is referred as,

a) Planning problem
b) Partial order planning
c) Total order planning
d) Both Planning problem & Partial order planning
View Answer

Answer: b
Explanation: Definition of partial order planning.

2. To complete any task, the brain needs to plan out the sequence by which to execute the behavior. One way the brain does this is with a partial-order plan. State whether true or false.
a) True
b) False
View Answer

Answer: a
Explanation: None.

3. In partial order plan.
A. Relationships between the actions of the behavior are set prior to the actions
B. Relationships between the actions of the behavior are not set until absolutely necessary
Choose the correct option.
a) A is true
b) B is true
c) Either A or B can be true depending upon situation
d) Neither A nor B is true
View Answer

Answer: a
Explanation: Relationship between behavior and actions is established dynamically.

4. Partial-order planning exhibits the Principle of Least Commitment, which contributes to the efficiency of this planning system as a whole.
a) True
b) False
View Answer

Answer: a
Explanation: None.

5. Following is/are the components of the partial order planning.
a) Bindings
b) Goal
c) Causal Links
d) All of the mentioned
View Answer

Answer: d
Explanation: Bindings: The bindings of the algorithm are the connections between specific variables in the action. Bindings, as ordering, only occur when it is absolutely necessary.
Causal Links: Causal links in the algorithm are those that categorically order actions. They are not the specific order (1,2,3) of the actions, rather the general order as in Action 2 must come somewhere after Action 1, but before Action 2.
Plan Space: The plan space of the algorithm is constrained between its start and finish. The algorithm starts, producing the initial state and finishes when all parts of the goal is been achieved.

6. Partial-order planning is the opposite of total-order planning.
a) True
b) False
View Answer

Answer: a
Explanation: Partial-order planning is the opposite of total-order planning, in which actions are sequenced all at once and for the entirety of the task at hand.

7. Sussman Anomaly can be easily and efficiently solved by partial order planning.
a) True
b) False
View Answer

Answer: a
Explanation: http://en.wikipedia.org/wiki/Sussman_Anomaly.

8. Sussman Anomaly illustrates a weakness of interleaved planning algorithm.
a) True

b) False
View Answer

Answer: b
Explanation: Sussman Anomaly illustrates a weakness of non interleaved planning algorithm.

9. One the main drawback of this type of planning system is that it requires a lot of computational powers at each node.
a) True
b) False
View Answer

Answer: a
Explanation: None.

10. What are you predicating by the logic: ∀x: €y: loyalto(x, y).
a) Everyone is loyal to someone
b) Everyone is loyal to all
c) Everyone is not loyal to someone
d) Everyone is loyal
View Answer

Answer: a
Explanation: ∀x denotes Everyone or all, and €y someone and loyal to is the proposition logic making map x to y.

11. A plan that describe how to take actions in levels of increasing refinement and specificity is
a) Problem solving
b) Planning
c) Non-hierarchical plan
d) Hierarchical plan
View Answer

Answer: d
Explanation: A plan that describes how to take actions in levels of increasing refinement and specificity is Hierarchical (e.g., “Do something” becomes the more

specific “Go to work,” “Do work,” “Go home.”) Most plans are hierarchical in nature.

12. A constructive approach in which no commitment is made unless it is necessary to do so, is
a) Least commitment approach
b) Most commitment approach
c) Nonlinear planning
d) Opportunistic planning
View Answer

Answer: a
Explanation: Because we are not sure about the outcome.

13. Uncertainty arises in the Wumpus world because the agent’s sensors give only
a) Full & Global information
b) Partial & Global Information
c) Partial & local Information
d) Full & local information
View Answer

Answer: c
Explanation: The Wumpus world is a grid of squares surrounded by walls, where each square can contain agents and objects. The agent (you) always starts in the lower left corner, a square that will be labeled [1, 1]. The agent’s task is to find the gold, return to [1, 1] and climb out of the cave. Therefore, uncertainty is there as the agent gives partial and local information only. Global variable are not goal specific problem solving.

Artificial Intelligence Questions & Answers – Partial Order Planning – 1

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Partial Order Planning – 1”.

1. Which of the following search belongs to totally ordered plan search?
a) Forward state-space search
b) Hill-climbing search
c) Depth-first search

d) Breadth-first search
View Answer

Answer: a
Explanation: Forward and backward state-space search are particular forms of totally ordered plan search.

2. Which cannot be taken as advantage for totally ordered plan search?
a) Composition
b) State search
c) Problem decomposition
d) None of the mentioned
View Answer

Answer: c
Explanation: As the search explore explore only linear sequences of actions, So they cannot take the advantage of problem decomposition.

3. What is the advantage of totally ordered plan in constructing the plan?
a) Reliability
b) Flexibility
c) Easy to use
d) All of the mentioned
View Answer

Answer: b
Explanation: Totally ordered plan has the advantage of flexibility in the order in which it constructs the plan.

4. Which strategy is used for delaying a choice during search?
a) First commitment
b) Least commitment
c) Both First & Least commitment
d) None of the mentioned
View Answer

Answer: b
Explanation: The general strategy of delaying a choice during search is called a least commitment strategy.

5. Which algorithm place two actions into a plan without specifying which should come first?
a) Full-order planner
b) Total-order planner
c) Semi-order planner
d) Partial-order planner
View Answer

Answer: d
Explanation: Any planning algorithm that can place two actions into a plan without specifying which should come first is called partial-order planner.

6. How many possible plans are available in partial-order solution?
a) 3
b) 4
c) 5
d) 6
View Answer

Answer: d
Explanation: The partial-order solution corresponds to six possible total-order plans.

7. What is the other name of each and every total-order plans?
a) Polarization
b) Linearization
c) Solarization
d) None of the mentioned
View Answer

Answer: b
Explanation: Each and every total order plan is also called as linearization of the partial-order plan.

8. What are present in the empty plan?
a) Start
b) Finish
c) Modest
d) Both Start & Finish
View Answer

Answer: d
Explanation: The ’empty’ plan contains just the start and finish actions.

9. What are not present in start actions?
a) Preconditions
b) Effect
c) Finish
d) None of the mentioned
View Answer

Answer: a
Explanation: Start has no precondition and has as its effects all the literals in the initial state of the planning problem.

10. What are not present in finish actions?
a) Preconditions
b) Effect
c) Finish
d) None of the mentioned
View Answer

Answer: b
Explanation: Finish has no effects and has as its preconditions the goal literals of the planning algorithm.

11. Which can be adapted for planning algorithm?
a) Most-constrained variable
b) Most-constrained literal
c) constrained
d) None of the mentioned
View Answer

Answer: a
Explanation: The most-constrained variable heuristic from CSPs can be adapted for planning algorithm and seems to work well.

Artificial Intelligence Questions & Answers – Graph Planning

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Graph Planning”.

1. Which data structure is used to give better heuristic estimates?
a) Forwards state-space
b) Backward state-space
c) Planning graph algorithm
d) None of the mentioned
View Answer

Answer: c
Explanation: A special data structure called planning graph is used to give better heuristic estimates.

2. Which is used to extract solution directly from the planning graph?
a) Planning algorithm
b) Graphplan
c) Hill-climbing search
d) All of the mentioned
View Answer

Answer: b
Explanation: We can extract the solution directly from the planning graph, using a specialized algorithm called Graphplan.

3. What are present in the planning graph?
a) Sequence of levels
b) Literals
c) Variables
d) Heuristic estimates
View Answer

Answer: a
Explanation: A planning graph consists of sequence of levels correspond to time steps.

4. What is the starting level of planning graph?
a) Level 3
b) Level 2

c) Level 1
d) Level 0
View Answer

Answer: d
Explanation: None.

5. What are present in each level of planning graph?
a) Literals
b) Actions
c) Variables
d) Both Literals & Actions
View Answer

Answer: d
Explanation: Each and every level in the planning graph contains a set of literals and a set of actions.

6. Which kind of problem are suitable for planning graph?
a) Propositional planning problem
b) Planning problem
c) Action problem
d) None of the mentioned
View Answer

Answer: a
Explanation: Planning graph work only for propositional planning problem with no variables.

7. What is meant by persistence actions?
a) Allow a literal to remain false
b) Allow a literal to remain true
c) Allow a literal to remain false & true
d) None of the mentioned
View Answer

Answer: b
Explanation: Calculus allow a literal to remain true from one situation to the next if no action alters it. It is called as persistence action.

8. When will further expansion is unnecessary for planning graph?
a) Identical
b) Replicate
c) Not identical
d) None of the mentioned
View Answer

Answer: a
Explanation: Every subsequent levels will be identical, So further expansion is unnecessary.

9. How many conditions are available between two actions in mutex relation?
a) 1
b) 2
c) 3
d) 4
View Answer

Answer: c
Explanation: The three conditions available on mute relationship are inconsistent effects, interference and competing needs.

10. What is called inconsistent support?
a) If two literals are not negation of other
b) If two literals are negation of other
c) Mutually exclusive
d) None of the mentioned
View Answer

Answer: b
Explanation: If two literals are at the same level if one is the negation of another is called inconsistent support.

Artificial Intelligence Questions and Answers – Planning and Acting in the Real World

This set of Artificial Intelligence (AI) Problems focuses on “Planning and Acting in the Real World”.

1. The process by which the brain orders actions needed to complete a specific task is referred as,
a) Planning problem
b) Partial order planning
c) Total order planning
d) Both Planning problem & Partial order planning
View Answer

2. The famous spare tire problem or Scheduling classes for bunch of students or Air cargo transport are the best example of
a) Planning problem
b) Partial Order planning problem
c) Total order planning
d) None of the mentioned
View Answer

3. To eliminate the inaccuracy problem in planning problem or partial order planning problem we can use _____ data structure/s.
a) Stacks
b) Queue
c) BST (Binary Search Tree)
d) Planning Graphs
View Answer

4. Planning graphs consists of
a) a sequence of levels
b) a sequence of levels which corresponds to time steps in the plan
c) a sequence of actions which corresponds to the state of the system
d) none of the mentioned
View Answer

5. Planning graphs works only for prepositional planning problems.
a) True
b) False
View Answer

6. _____ algorithms is used to extract the plan directly from the planning graph, rather than using graph to provide heuristic.
a) BFS/DFS
b) A*

c) Graph-Plan
d) Greedy
View Answer

7. Planning problem can be described as a propositional logic.
a) True
b) False
View Answer

8. What is the other name of each plan resulted in partial order planning?
a) Polarization
b) Linearization
c) Solarization
d) None of the mentioned
View Answer

9. Planning problem combines the two major aspects of AI
a) Search & Logic
b) Logic & Knowledge Based Systems
c) FOL & Logic
d) Knowledge Based Systems
View Answer

10. _____ algorithm translates a planning problem in to prepositional axioms.
a) GraphPlan
b) SatPlan
c) Greedy
d) None of the mentioned
View Answer

11. _____ planning allows the agent to take advice from the domain designer in the form of decomposition rules.
a) GraphPlan
b) Hierarchical task network (HTN)
c) SatPlan
d) None of the mentioned
View Answer

12. Standard planning algorithms assumes environment to be
a) Deterministic
b) Fully observable
c) Single agent
d) Stochastic
View Answer

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13. Conditional Plans allows the agent to sense the world during execution to decide what branch of plan to follow.
a) True
b) False
View Answer

14. A re planning agent uses execution monitoring and splices in repairs as needed.
a) True
b) False
View Answer

15. Incorrect information results in unsatisfied preconditions for actions and plans _____ detects violations of the preconditions for successful completion of the plan.
a) Conditional Plan
b) Conformant Planning
c) Execution monitoring
d) Both Conditional Plan & Execution monitoring
View Answer

Artificial Intelligence Questions and Answers – Uncertain Knowledge and Reasoning

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Uncertain Knowledge and Reasoning”.

1. Using logic to represent and reason we can represent knowledge about the world with facts and rules.
a) True

b) False
View Answer

Answer: a
Explanation: None.

2. Uncertainty arises in the wumpus world because the agent's sensors give only
a) Full & Global information
b) Partial & Global Information
c) Partial & local Information
d) Full & local information
View Answer

Answer: c
Explanation: The Wumpus world is a grid of squares surrounded by walls, where each square can contain agents and objects. The agent (you) always starts in the lower left corner, a square that will be labeled [1, 1]. The agent's task is to find the gold, return to [1, 1] and climb out of the cave. So uncertainty is there as the agent gives partial and local information only. Global variable are not goal specific problem solving.

3. A Hybrid Bayesian network contains
a) Both discrete and continuous variables
b) Only Discrete variables
c) Only Discontinuous variable
d) Both Discrete and Discontinuous variable
View Answer

Answer: a
Explanation: To specify a Hybrid network, we have to specify two new kinds of distributions: the conditional distribution for continuous variables given discrete or continuous parents, and the conditional distribution for a discrete variable given continuous parents.

4. How is Fuzzy Logic different from conventional control methods?
a) IF and THEN Approach
b) FOR Approach
c) WHILE Approach
d) DO Approach
View Answer

Answer: a
Explanation: FL incorporates a simple, rule-based IF X AND Y THEN Z approach to a solving control problem rather than attempting to model a system mathematically.

5. If a hypothesis says it should be positive, but in fact it is negative, we call it
a) A consistent hypothesis
b) A false negative hypothesis
c) A false positive hypothesis
d) A specialized hypothesis
View Answer

Answer: c
Explanation: Consistent hypothesis go with examples, If the hypothesis says it should be negative but in fact it is positive, it is false negative. If a hypothesis says it should be positive, but in fact it is negative, it is false positive. In a specialized hypothesis we need to have certain restrict or special conditions.

6. The primitives in probabilistic reasoning are random variables.
a) True
b) False
View Answer

Answer: a
Explanation: The primitives in probabilistic reasoning are random variables. Just like primitives in Propositional Logic are propositions. A random variable is not in fact a variable, but a function from a sample space S to another space, often the real numbers.

7. Which is true for Decision theory?
a) Decision Theory = Probability theory + utility theory
b) Decision Theory = Inference theory + utility theory
c) Decision Theory = Uncertainty + utility theory
d) Decision Theory = Probability theory + preference
View Answer

Answer: c
Explanation: The Wumpus world is a grid of squares surrounded by walls, where each square can contain agents and objects. The agent (you) always starts in the lower left corner, a square that will be labeled [1, 1]. The agent’s task is to find the

gold, return to [1, 1] and climb out of the cave. So uncertainty is there as the agent gives partial and local information only. Global variable are not goal specific problem solving.

8. A constructive approach in which no commitment is made unless it is necessary to do so, is
a) Least commitment approach
b) Most commitment approach
c) Nonlinear planning
d) Opportunistic planning
View Answer

Answer: a
Explanation: Because we are not sure about the outcome.

Artificial Intelligence Questions & Answers – Semantic Interpretation

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Semantic Interpretation”.

1. What is the extraction of the meaning of utterance?
a) Syntactic
b) Semantic
c) Pragmatic
d) None of the mentioned
View Answer

Answer: b
Explanation: Semantic analysis is used to extract the meaning from the group of sentences.

2. What is the process of associating an FOL expression with a phrase?
a) Interpretation
b) Augmented reality
c) Semantic interpretation

d) Augmented interpretation
View Answer

Answer: c
Explanation: Semantic interpretation is the process of associating an FOL expression with a phrase.

3. What is meant by compositional semantics?
a) Determining the meaning
b) Logical connectives
c) Semantics
d) None of the mentioned
View Answer

Answer: a
Explanation: Compositional semantics is the process of determining the meaning of P*Q from P,Q and *.

4. What is used to augment a grammar for arithmetic expression with semantics?
a) Notation
b) DCG notation
c) Constituent
d) All of the mentioned
View Answer

Answer: b
Explanation: DCG notation is used to augment a grammar for arithmetic expression with semantics and it is used to build a parse tree.

5. What can’t be done in the semantic interpretation?
a) Logical term
b) Complete logical sentence
c) Both Logical term & Complete logical sentence
d) None of the mentioned
View Answer

Answer: c
Explanation: Some kind of sentence in the semantic interpretation can’t be logical term nor a complete logical sentence.

6. How many verb tenses are there in english language?
a) 1
b) 2
c) 3
d) 4
View Answer

Answer: c
Explanation: There are three types of tenses available in english language are past, present and future.

7. Which is used to mediate between syntax and semantics?
a) Form
b) Intermediate form
c) Grammer
d) All of the mentioned
View Answer

Answer: b
Explanation: None.

8. What is meant by quasi-logical form?
a) Sits between syntactic and logical form
b) Logical connectives
c) All of the mentioned
d) None of the mentioned
View Answer

Answer: a
Explanation: It can be translated into a regular first-order logical sentence, So that it Sits between syntactic and logical form.

9. How many types of quantification are available in artificial intelligence?
a) 1
b) 2
c) 3
d) 4
View Answer

Answer: b
Explanation: There are two types of quantification available. They are universal and existential.

10. What kind of interpretation is done by adding context-dependant information?
a) Semantic
b) Syntactic
c) Pragmatic
d) None of the mentioned
View Answer

Answer: c
Explanation: None.

Artificial Intelligence Questions & Answers – Object Recognition

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Object Recognition”.

1. What enables people to recognize people, animals and inanimate objects reliably?
a) Speech
b) Vision
c) Hear
d) Perception
View Answer

Answer: b
Explanation: Vision enables people to recognize people, animals and inanimate objects reliably. It is customary to use object recognition.

2. How many types of recognition are there in artificial intelligence?
a) 1
b) 2
c) 3
d) 4
View Answer

Answer: c
Explanation: The three types of recognition are biometric identification, content-based image retrieval and handwriting recognition.

3. Which are recognized by vision?
a) Objects
b) Activities
c) Motion
d) Both Objects & Activities
View Answer

Answer: d
Explanation: Vision is used to recognize not only objects, but also activities.

4. Which provides a framework for studying object recognition?
a) Learning
b) Unsupervised learning
c) Supervised learning
d) None of the mentioned
View Answer

Answer: c
Explanation: Supervised learning or pattern classification provides a framework for studying object recognition.

5. Which object recognition process is an error-prone process?
a) Bottom-up segmentation
b) Top-down segmentation
c) Both Bottom-up & Top-down segmentation
d) None of the mentioned
View Answer

Answer: a
Explanation: In the process of creating subset of pixels, the bottom-up segmentation is an error-prone process.

6. Which is the only way to learn about the different kinds of human faces?
a) Perception
b) Speech
c) Learning

d) Hearing
View Answer

Answer: c
Explanation: None.

7. What can be represented by using histograms or empirical frequency distributions?
a) Words
b) Color
c) Texture
d) Both Color & Texture
View Answer

Answer: d
Explanation: Color and texture can be represented by using histograms or empirical frequency distributions.

8. Which can be deformed into alignment using simple coordinate transformations?
a) Matching
b) Deformable matching
c) Feature
d) All of the mentioned
View Answer

Answer: b
Explanation: The distance between images can be deformed into alignment using simple coordinate transformations. And it is called as Deformable matching.

9. Which describes the coarse arrangement of the rest of the shape with respect to the point?
a) Shape
b) Context
c) Shape context
d) None of the mentioned
View Answer

Answer: c
Explanation: Because an object’s shape can be manipulated with respect to the point.

10. How the distance between two shapes can be defined?
a) Weighted sum of the shape
b) Size of the shape
c) Shape context
d) None of the mentioned
View Answer

Answer: a
Explanation: The distance between two shapes can be defined as a weighted sum of the shape context distance between corresponding points.

Artificial Intelligence Questions & Answers – Probability Notation

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Probability Notation”.

1. How many issues are available in describing degree of belief?
a) 1
b) 2
c) 3
d) 4
View Answer

Answer: b
Explanation: The main issues for degree of belief are nature of the sentences and the dependance of degree of the belief.

2. What is used for probability theory sentences?
a) Conditional logic
b) Logic
c) Extension of propositional logic
d) None of the mentioned
View Answer

Answer: c
Explanation: The version of probability theory we present uses an extension of propositional logic for its sentences.

3. Where does the dependance of experience is reflected in prior probability sentences?
a) Syntactic distinction
b) Semantic distinction
c) Both Syntactic & Semantic distinction
d) None of the mentioned
View Answer

Answer: a
Explanation: The dependance on experience is reflected in the syntactic distinction between prior probability statements.

4. Where does the degree of belief are applied?
a) Propositions
b) Literals
c) Variables
d) Statements
View Answer

Answer: a
Explanation: None.

5. How many formal languages are used for stating propositions?
a) 1
b) 2
c) 3
d) 4
View Answer

Answer: b
Explanation: The two formal languages used for stating propositions are propositional logic and first-order logic.

6. What is the basic element for a language?
a) Literal
b) Variable
c) Random variable
d) All of the mentioned
View Answer

Answer: c
Explanation: The basic element for a language is the random variable, which can be thought as a part of world and its status is initially unknown.

7. How many types of random variables are available?
a) 1
b) 2
c) 3
d) 4
View Answer

Answer: c
Explanation: The three types of random variables are boolean, discrete and continuous.

8. Which is the complete specification of the state of the world?
a) Atomic event
b) Complex event
c) Simple event
d) None of the mentioned
View Answer

Answer: a
Explanation: An atomic event is the complete specification of the state of the world about which the event is uncertain.

9. Which variable cannot be written in entire distribution as a table?
a) Discrete
b) Continuous
c) Both Discrete & Continuous
d) None of the mentioned
View Answer

Answer: b
Explanation: For continuous variables, it is not possible to write out the entire distribution as a table.

10. What is meant by probability density function?
a) Probability distributions
b) Continuous variable
c) Discrete variable

d) Probability distributions for Continuous variables
View Answer

Answer: d
Explanation: None.

Artificial Intelligence Questions & Answers – Bayesian Networks

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Bayesian Networks”.

1. How many terms are required for building a bayes model?
a) 1
b) 2
c) 3
d) 4
View Answer

Answer: c
Explanation: The three required terms are a conditional probability and two unconditional probability.

2. What is needed to make probabilistic systems feasible in the world?
a) Reliability
b) Crucial robustness
c) Feasibility
d) None of the mentioned
View Answer

Answer: b
Explanation: On a model-based knowledge provides the crucial robustness needed to make probabilistic system feasible in the real world.

3. Where does the bayes rule can be used?
a) Solving queries
b) Increasing complexity
c) Decreasing complexity

d) Answering probabilistic query
View Answer

Answer: d
Explanation: Bayes rule can be used to answer the probabilistic queries conditioned on one piece of evidence.

4. What does the bayesian network provides?
a) Complete description of the domain
b) Partial description of the domain
c) Complete description of the problem
d) None of the mentioned
View Answer

Answer: a
Explanation: A Bayesian network provides a complete description of the domain.

5. How the entries in the full joint probability distribution can be calculated?
a) Using variables
b) Using information
c) Both Using variables & information
d) None of the mentioned
View Answer

Answer: b
Explanation: Every entry in the full joint probability distribution can be calculated from the information in the network.

6. How the bayesian network can be used to answer any query?
a) Full distribution
b) Joint distribution
c) Partial distribution
d) All of the mentioned
View Answer

Answer: b
Explanation: If a bayesian network is a representation of the joint distribution, then it can solve any query, by summing all the relevant joint entries.

7. How the compactness of the bayesian network can be described?
a) Locally structured

b) Fully structured
c) Partial structure
d) All of the mentioned
View Answer

Answer: a
Explanation: The compactness of the bayesian network is an example of a very general property of a locally structured systems.

8. To which does the local structure is associated?
a) Hybrid
b) Dependant
c) Linear
d) None of the mentioned
View Answer

Answer: c
Explanation: Local structure is usually associated with linear rather than exponential growth in complexity.

9. Which condition is used to influence a variable directly by all the others?
a) Partially connected
b) Fully connected
c) Local connected
d) None of the mentioned
View Answer

Answer: b
Explanation: None.

10. What is the consequence between a node and its predecessors while creating bayesian network?
a) Functionally dependent
b) Dependant
c) Conditionally independent
d) Both Conditionally dependant & Dependant
View Answer

Answer: c
Explanation: The semantics to derive a method for constructing bayesian networks

were led to the consequence that a node can be conditionally independent of its predecessors.

Artificial Intelligence Questions and Answers – Fuzzy Logic

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Fuzzy Logic”.

1. Fuzzy logic is a form of
a) Two-valued logic
b) Crisp set logic
c) Many-valued logic
d) Binary set logic
View Answer

Answer: c
Explanation: With fuzzy logic set membership is defined by certain value. Hence it could have many values to be in the set.

2. Traditional set theory is also known as Crisp Set theory.
a) True
b) False
View Answer

Answer: a
Explanation: Traditional set theory set membership is fixed or exact either the member is in the set or not. There is only two crisp values true or false. In case of fuzzy logic there are many values. With weight say x the member is in the set.

3. The truth values of traditional set theory is _____ and that of fuzzy set is _____
a) Either 0 or 1, between 0 & 1
b) Between 0 & 1, either 0 or 1
c) Between 0 & 1, between 0 & 1
d) Either 0 or 1, either 0 or 1
View Answer

Answer: a
Explanation: Refer the definition of Fuzzy set and Crisp set.

4. Fuzzy logic is extension of Crisp set with an extension of handling the concept of Partial Truth.
a) True
b) False
View Answer

Answer: a
Explanation: None.

5. The room temperature is hot. Here the hot (use of linguistic variable is used) can be represented by _____
a) Fuzzy Set
b) Crisp Set
c) Fuzzy & Crisp Set
d) None of the mentioned
View Answer

Answer: a
Explanation: Fuzzy logic deals with linguistic variables.

6. The values of the set membership is represented by
a) Discrete Set
b) Degree of truth
c) Probabilities
d) Both Degree of truth & Probabilities
View Answer

Answer: b
Explanation: Both Probabilities and degree of truth ranges between 0 – 1.

7. Japanese were the first to utilize fuzzy logic practically on high-speed trains in Sendai.
a) True
b) False
View Answer

Answer: a
Explanation: None.

8. Fuzzy Set theory defines fuzzy operators. Choose the fuzzy operators from the following.

a) AND
b) OR
c) NOT
d) All of the mentioned
View Answer

Answer: d
Explanation: The AND, OR, and NOT operators of Boolean logic exist in fuzzy logic, usually defined as the minimum, maximum, and complement;

9. There are also other operators, more linguistic in nature, called _____ that can be applied to fuzzy set theory.
a) Hedges
b) Lingual Variable
c) Fuzz Variable
d) None of the mentioned
View Answer

Answer: a
Explanation: None.

10. Fuzzy logic is usually represented as
a) IF-THEN-ELSE rules
b) IF-THEN rules
c) Both IF-THEN-ELSE rules & IF-THEN rules
d) None of the mentioned
View Answer

Answer: b
Explanation: Fuzzy set theory defines fuzzy operators on fuzzy sets. The problem in applying this is that the appropriate fuzzy operator may not be known. For this reason, fuzzy logic usually uses IF-THEN rules, or constructs that are equivalent, such as fuzzy associative matrices.
Rules are usually expressed in the form:
IF variable IS property THEN action

11. Like relational databases there does exists fuzzy relational databases.
a) True

b) False
View Answer

Answer: a
Explanation: Once fuzzy relations are defined, it is possible to develop fuzzy relational databases. The first fuzzy relational database, FRDB, appeared in Maria Zemankova dissertation.

12. _____ is/are the way/s to represent uncertainty.
a) Fuzzy Logic
b) Probability
c) Entropy
d) All of the mentioned
View Answer

Answer: d
Explanation: Entropy is amount of uncertainty involved in data. Represented by H(data).

13. _____ are algorithms that learn from their more complex environments (hence eco) to generalize, approximate and simplify solution logic.
a) Fuzzy Relational DB
b) Ecorithms
c) Fuzzy Set
d) None of the mentioned
View Answer

Answer: c
Explanation: Local structure is usually associated with linear rather than exponential growth in complexity.

Artificial Intelligence Questions & Answers – Hidden Markov Model

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Hidden Markov Model”.

1. Which algorithm is used for solving temporal probabilistic reasoning?
a) Hill-climbing search

b) Hidden markov model
c) Depth-first search
d) Breadth-first search
View Answer

Answer: b
Explanation: Hidden Markov model is used for solving temporal probabilistic reasoning that was independent of transition and sensor model.

2. How does the state of the process is described in HMM?
a) Literal
b) Single random variable
c) Single discrete random variable
d) None of the mentioned
View Answer

Answer: c
Explanation: An HMM is a temporal probabilistic model in which the state of the process is described by a single discrete random variable.

3. What are the possible values of the variable?
a) Variables
b) Literals
c) Discrete variable
d) Possible states of the world
View Answer

Answer: d
Explanation: The possible values of the variables are the possible states of the world.

4. Where does the additional variables are added in HMM?
a) Temporal model
b) Reality model
c) Probability model
d) All of the mentioned
View Answer

Answer: a
Explanation: Additional state variables can be added to a temporal model while staying within the HMM framework.

5. Which allows for a simple and matrix implementation of all the basic algorithm?
a) HMM
b) Restricted structure of HMM
c) Temporary model
d) Reality model
View Answer

Answer: b
Explanation: Restricted structure of HMM allows for a very simple and elegant matrix implementation of all the basic algorithm.

6. Where does the Hidden Markov Model is used?
a) Speech recognition
b) Understanding of real world
c) Both Speech recognition & Understanding of real world
d) None of the mentioned
View Answer

Answer: a
Explanation: None.

7. Which variable can give the concrete form to the representation of the transition model?
a) Single variable
b) Discrete state variable
c) Random variable
d) Both Single & Discrete state variable
View Answer

Answer: d
Explanation: With a single, discrete state variable, we can give concrete form to the representation of the transition model.

8. Which algorithm works by first running the standard forward pass to compute?
a) Smoothing
b) Modified smoothing
c) HMM
d) Depth-first search algorithm
View Answer

Answer: b
Explanation: The modified smoothing algorithm works by first running the standard forward pass to compute and then running the backward pass.

9. Which reveals an improvement in online smoothing?
a) Matrix formulation
b) Revelation
c) HMM
d) None of the mentioned
View Answer

Answer: a
Explanation: Matrix formulation reveals an improvement in online smoothing with a fixed lag.

10. Which suggests the existence of efficient recursive algorithm for online smoothing?
a) Matrix
b) Constant space
c) Constant time
d) None of the mentioned
View Answer

Answer: b
Explanation: None.

Artificial Intelligence Questions and Answers – Neural Networks – 1

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Neural Networks – 1”.

1. A 3-input neuron is trained to output a zero when the input is 110 and a one when the input is 111. After generalization, the output will be zero when and only

when the input is:
a) 000 or 110 or 011 or 101
b) 010 or 100 or 110 or 101
c) 000 or 010 or 110 or 100
d) 100 or 111 or 101 or 001
View Answer

Answer: c
Explanation: The truth table before generalization is:
Inputs Output
000 $
001 $
010 $
011 $
100 $
101 $
110 0
111 1
where $ represents don’t know cases and the output is random.
After generalization, the truth table becomes:
Inputs Output
000 0
001 1
010 0
011 1
100 0
101 1
110 0
111 1
.

2. A perceptron is:
a) a single layer feed-forward neural network with pre-processing
b) an auto-associative neural network
c) a double layer auto-associative neural network
d) a neural network that contains feedback
View Answer

Answer: a
Explanation: The perceptron is a single layer feed-forward neural network. It is not an auto-associative network because it has no feedback and is not a multiple layer neural network because the pre-processing stage is not made of neurons.

3. An auto-associative network is:
a) a neural network that contains no loops
b) a neural network that contains feedback
c) a neural network that has only one loop
d) a single layer feed-forward neural network with pre-processing
View Answer

Answer: b
Explanation: An auto-associative network is equivalent to a neural network that contains feedback. The number of feedback paths(loops) does not have to be one.

4. A 4-input neuron has weights 1, 2, 3 and 4. The transfer function is linear with the constant of proportionality being equal to 2. The inputs are 4, 10, 5 and 20 respectively. The output will be:
a) 238
b) 76
c) 119
d) 123
View Answer

Answer: a
Explanation: The output is found by multiplying the weights with their respective inputs, summing the results and multiplying with the transfer function. Therefore: Output = 2 * (1*4 + 2*10 + 3*5 + 4*20) = 238.

5. Which of the following is true?
(i) On average, neural networks have higher computational rates than conventional computers.
(ii) Neural networks learn by example.
(iii) Neural networks mimic the way the human brain works.
a) All of the mentioned are true
b) (ii) and (iii) are true
c) (i), (ii) and (iii) are true
d) None of the mentioned
View Answer

Answer: a
Explanation: Neural networks have higher computational rates than conventional computers because a lot of the operation is done in parallel. That is not the case when the neural network is simulated on a computer. The idea behind neural nets is based on the way the human brain works. Neural nets cannot be programmed, they can only learn by examples.

6. Which of the following is true for neural networks?
(i) The training time depends on the size of the network.
(ii) Neural networks can be simulated on a conventional computer.
(iii) Artificial neurons are identical in operation to biological ones.
a) All of the mentioned
b) (ii) is true
c) (i) and (ii) are true
d) None of the mentioned
View Answer

Answer: c
Explanation: The training time depends on the size of the network; the number of neuron is greater and therefore the number of possible 'states' is increased. Neural networks can be simulated on a conventional computer but the main advantage of neural networks – parallel execution – is lost. Artificial neurons are not identical in operation to the biological ones.

7. What are the advantages of neural networks over conventional computers?
(i) They have the ability to learn by example
(ii) They are more fault tolerant
(iii)They are more suited for real time operation due to their high 'computational' rates
a) (i) and (ii) are true
b) (i) and (iii) are true
c) Only (i)
d) All of the mentioned
View Answer

Answer: d
Explanation: Neural networks learn by example. They are more fault tolerant because they are always able to respond and small changes in input do not

normally cause a change in output. Because of their parallel architecture, high computational rates are achieved.

8. Which of the following is true?
Single layer associative neural networks do not have the ability to:
(i) perform pattern recognition
(ii) find the parity of a picture
(iii)determine whether two or more shapes in a picture are connected or not
a) (ii) and (iii) are true
b) (ii) is true
c) All of the mentioned
d) None of the mentioned
View Answer

Answer: a
Explanation: Pattern recognition is what single layer neural networks are best at but they don’t have the ability to find the parity of a picture or to determine whether two shapes are connected or not.

9. Which is true for neural networks?
a) It has set of nodes and connections
b) Each node computes it’s weighted input
c) Node could be in excited state or non-excited state
d) All of the mentioned
View Answer

Answer: d
Explanation: All mentioned are the characteristics of neural network.

10. Neuro software is:
a) A software used to analyze neurons
b) It is powerful and easy neural network
c) Designed to aid experts in real world
d) It is software used by Neurosurgeon
View Answer

Answer: b
Explanation: None.

Artificial Intelligence Questions and Answers – Neural Networks – 2

This set of AI Multiple Choice Questions & Answers focuses on “Neural Networks – 2”.

1. Why is the XOR problem exceptionally interesting to neural network researchers?
a) Because it can be expressed in a way that allows you to use a neural network
b) Because it is complex binary operation that cannot be solved using neural networks
c) Because it can be solved by a single layer perceptron
d) Because it is the simplest linearly inseparable problem that exists.
View Answer

Answer: d
Explanation: None.

2. What is back propagation?
a) It is another name given to the curvy function in the perceptron
b) It is the transmission of error back through the network to adjust the inputs
c) It is the transmission of error back through the network to allow weights to be adjusted so that the network can learn
d) None of the mentioned
View Answer

Answer: c
Explanation: Back propagation is the transmission of error back through the network to allow weights to be adjusted so that the network can learn.

3. Why are linearly separable problems of interest of neural network researchers?
a) Because they are the only class of problem that network can solve successfully
b) Because they are the only class of problem that Perceptron can solve successfully
c) Because they are the only mathematical functions that are continue
d) Because they are the only mathematical functions you can draw
View Answer

Answer: b
Explanation: Linearly separable problems of interest of neural network researchers because they are the only class of problem that Perceptron can solve successfully.

4. Which of the following is not the promise of artificial neural network?
a) It can explain result
b) It can survive the failure of some nodes
c) It has inherent parallelism
d) It can handle noise
View Answer

Answer: a
Explanation: The artificial Neural Network (ANN) cannot explain result.

5. Neural Networks are complex _____ with many parameters.
a) Linear Functions
b) Nonlinear Functions
c) Discrete Functions
d) Exponential Functions
View Answer

Answer: a
Explanation: Neural networks are complex linear functions with many parameters.

6. A perceptron adds up all the weighted inputs it receives, and if it exceeds a certain value, it outputs a 1, otherwise it just outputs a 0.
a) True
b) False
c) Sometimes – it can also output intermediate values as well
d) Can’t say
View Answer

Answer: a
Explanation: Yes the perceptron works like that.

7. The name for the function in question 16 is
a) Step function
b) Heaviside function
c) Logistic function
d) Perceptron function
View Answer

Answer: b
Explanation: Also known as the step function – so answer 1 is also right. It is a hard thresholding function, either on or off with no in-between.

8. Having multiple perceptrons can actually solve the XOR problem satisfactorily: this is because each perceptron can partition off a linear part of the space itself, and they can then combine their results
a) True – this works always, and these multiple perceptrons learn to classify even complex problems
b) False – perceptrons are mathematically incapable of solving linearly inseparable functions, no matter what you do
c) True – perceptrons can do this but are unable to learn to do it – they have to be explicitly hand-coded
d) False – just having a single perceptron is enough
View Answer

Answer: c
Explanation: None.

9. The network that involves backward links from output to the input and hidden layers is called as ____
a) Self organizing maps
b) Perceptrons
c) Recurrent neural network
d) Multi layered perceptron
View Answer

Answer: c
Explanation: RNN (Recurrent neural network) topology involves backward links from output to the input and hidden layers.

10. Which of the following is an application of NN (Neural Network)?
a) Sales forecasting
b) Data validation
c) Risk management
d) All of the mentioned
View Answer

Answer: d
Explanation: All mentioned options are applications of Neural Network.

Artificial Intelligence Questions and Answers – Decision Trees

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Decision Trees”.

1. A _____ is a decision support tool that uses a tree-like graph or model of decisions and their possible consequences, including chance event outcomes, resource costs, and utility.
a) Decision tree
b) Graphs
c) Trees
d) Neural Networks
View Answer

Answer: a
Explanation: Refer the definition of Decision tree.

2. Decision Tree is a display of an algorithm.
a) True
b) False
View Answer

Answer: a
Explanation: None.

3. Decision Tree is
a) Flow-Chart
b) Structure in which internal node represents test on an attribute, each branch represents outcome of test and each leaf node represents class label
c) Flow-Chart & Structure in which internal node represents test on an attribute, each branch represents outcome of test and each leaf node represents class label
d) None of the mentioned
View Answer

Answer: c
Explanation: Refer the definition of Decision tree.

4. Decision Trees can be used for Classification Tasks.
a) True

b) False
View Answer

Answer: a
Explanation: None.

5. Choose from the following that are Decision Tree nodes
a) Decision Nodes
b) End Nodes
c) Chance Nodes
d) All of the mentioned
View Answer

Answer: d
Explanation: None.

6. Decision Nodes are represented by _____
a) Disks
b) Squares
c) Circles
d) Triangles
View Answer

Answer: b
Explanation: None.

7. Chance Nodes are represented by,
a) Disks
b) Squares
c) Circles
d) Triangles
View Answer

Answer: c
Explanation: None.

8. End Nodes are represented by _____
a) Disks
b) Squares
c) Circles

d) Triangles
View Answer

Answer: d
Explanation: None.

9. Following are the advantage/s of Decision Trees. Choose that apply.
a) Possible Scenarios can be added
b) Use a white box model, If given result is provided by a model
c) Worst, best and expected values can be determined for different scenarios
d) All of the mentioned
View Answer

Answer: d
Explanation: None.

Artificial Intelligence Questions & Answers – Inductive logic programming

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Inductive logic programming”.

1. Which combines inductive methods with the power of first-order representations?
a) Inductive programming
b) Logic programming
c) Inductive logic programming
d) Lisp programming
View Answer

Answer: c
Explanation: Inductive logic programming(ILP) combines inductive methods with the power of first-order representations.

2. How many reasons are available for the popularity of ILP?
a) 1
b) 2
c) 3
d) 4
View Answer

Answer: c
Explanation: The three reasons available for the popularity of ILP are general knowledge, Complete algorithm and hypotheses.

3. Which cannot be represented by a set of attributes?
a) Program
b) Three-dimensional configuration of a protein molecule
c) Agents
d) None of the mentioned
View Answer

Answer: b
Explanation: Because the configuration inherently refers to relationships between objects.

4. Which is an appropriate language for describing the relationships?
a) First-order logic
b) Propositional logic
c) ILP
d) None of the mentioned
View Answer

Answer: a
Explanation: None.

5. Which produces hypotheses that are easy to read for humans?
a) ILP
b) Artificial intelligence
c) Propositional logic
d) First-order logic
View Answer

Answer: a
Explanation: Because ILP can participate in the scientific cycle of experimentation, So that it can produce flexible structure.

6. What need to be satisfied in inductive logic programming?
a) Constraint
b) Entailment constraint
c) Both Constraint & Entailment constraint

d) None of the mentioned
View Answer

Answer: b
Explanation: The objective of an ILP is to come up with a set of sentences for the hypothesis such that the entailment constraint is satisfied.

7. How many literals are available in top-down inductive learning methods?
a) 1
b) 2
c) 3
d) 4
View Answer

Answer: c
Explanation: The three literals are available in top-down inductive learning methods are predicates, equality and inequality and arithmetic literals.

8. Which inverts a complete resolution strategy?
a) Inverse resolution
b) Resolution
c) Trilogy
d) None of the mentioned
View Answer

Answer: a
Explanation: Because it is a complete algorithm for learning first-order theories.

9. Which method can’t be used for expressing relational knowledge?
a) Literal system
b) Variable-based system
c) Attribute-based system
d) None of the mentioned
View Answer

Answer: c
Explanation: ILP methods can learn relational knowledge that is not expressible in attribute-based system.

10. Which approach is used for refining a very general rule through ILP?
a) Top-down approach

b) Bottom-up approach
c) Both Top-down & Bottom-up approach
d) None of the mentioned
View Answer

Answer: a
Explanation: None.

Artificial Intelligence Questions & Answers – Communication

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Communication”.

1. What is the intentional exchange of information brought about by production and perception?
a) Hearing
b) Communication
c) Speech
d) None of the mentioned
View Answer

Answer: b
Explanation: Communication is the intentional exchange of information brought about by production and perception of signs drawn from a shared system.

2. What is the complex system of structured message?
a) Languages
b) Words
c) Signs
d) Speech
View Answer

Answer: a
Explanation: Language is the complex system of structured message that enables us to communicate.

3. How many things are present in conventional communication signs?
a) 3

b) 4
c) 5
d) 6
View Answer

Answer: c
Explanation: The five things present in the conventional communication system are query, inform, request, acknowledge and promise.

4. What is defined by set of strings?
a) Signs
b) Formal language
c) Communication
d) None of the mentioned
View Answer

Answer: b
Explanation: A formal language is defined by set of strings that is a concatenation of terminal symbols.

5. What is a finite set of rules that specifies a language?
a) Signs
b) Communication
c) Grammer
d) Phrase
View Answer

Answer: c
Explanation: None.

6. What kind of perception is used in printing?
a) Optical character recognition
b) Speech recognition
c) Perception
d) None of the mentioned
View Answer

Answer: a
Explanation: When perception is used in printing means, It is called as optical character recognition.

7. Why the parsing is used?
a) Interpretation
b) Building a parse tree
c) Recognition
d) All of the mentioned
View Answer

Answer: b
Explanation: Parsing is the process of building a parse tree for an input string.

8. How many objects are available in closed classes?
a) 1
b) 2
c) 3
d) 4
View Answer

Answer: d
Explanation: The four objects are available in closed classes are pronoun, article, preposition and conjunction.

9. How many states are present in parsing?
a) 1
b) 2
c) 3
d) 4
View Answer

Answer: c
Explanation: The three state available in parsing are initial state, successor function and goal test.

10. Pick out the correct option about the types of parsing.
a) Top-down and bottom-up parsing
b) Interpretation and communication
c) Roll-up and roll-down
d) None of the mentioned
View Answer

Answer: a
Explanation: The two types of parsing are top-down parsing and bottom-up parsing.

11. Semantic grammars:
a) Encode semantic information into a syntactic grammar
b) Decode semantic information into a syntactic grammar
c) Encode syntactic information into a semantic grammar
d) Decode syntactic information into a semantic grammar
View Answer

Answer : a
Explanation: Semantic grammars encode semantic information into a syntactic grammar.

12. What is a top-down parser?
a) Begins by hypothesizing a sentence (the symbol S) and successively predicting lower level constituents until individual pre-terminal symbols are written
b) Begins by hypothesizing a sentence (the symbol S) and successively predicting upper level constituents until individual pre-terminal 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)
View Answer

Answer: a
Explanation: A top-down parser begins by hypothesizing a sentence (the symbol S) and successively predicting lower level constituents until individual pre-terminal symbols are written.

13. Perception involves
a) Sights, sounds, smell and touch
b) Hitting
c) Boxing
d) Dancing
View Answer

Answer: a
Explanation: Perception involves Sights, sounds, smell and touch.

Artificial Intelligence Questions and Answers – Perception

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Perception”.

1. The process by which you become aware of messages through your sense is called
a) Organization
b) Sensation
c) Interpretation-Evaluation
d) Perception
View Answer

Answer: d
Explanation: None.

2. Susan is so beautiful; I bet she is smart too. This is an example of
a) The halo effect
b) The primary effect
c) A self-fulfilling prophecy
d) The recency effect
View Answer

Answer: a
Explanation: None.

3. _____ prevents you from seeing an individual as an individual rather than as a member of a group.
a) Cultural mores
b) Stereotypes
c) Schematas
d) Attributions
View Answer

Answer: c
Explanation: None.

4. When you get fired from your job and you determine it is because your boss dislikes you, you are most likely exhibiting
a) Self-promotion
b) Fundamental attribution error
c) Over-attribution
d) Self-serving bias
View Answer

Answer: d
Explanation: None.

5. Mindless processing is
a) careful, critical thinking
b) inaccurate and faulty processing
c) information processing that relies heavily on familiar schemata
d) processing that focuses on unusual or novel events
View Answer

Answer: c
Explanation: None.

6. Selective retention occurs when
a) we process, store, and retrieve information that we have already selected, organized, and interpreted
b) we make choices to experience particular stimuli
c) we make choices to avoid particular stimuli
d) we focus on specific stimuli while ignoring other stimuli
View Answer

Answer: a
Explanation: None.

7. Which of the following strategies would NOT be effective at improving your communication competence?
a) Recognize the people, objects, and situations remain stable over time
b) Recognize that each person’s frame of perception is unique
c) Be active in perceiving

d) Distinguish facts from inference
View Answer

Answer: a
Explanation: None.

8. _____ is measured by the number of mental structures we use, how abstract they are, and how elaborate they interact to shape our perceptions.
a) intrapersonal structure
b) perceptual set
c) self-justification
d) none of the mentioned
View Answer

Answer: d
Explanation: None.

9. A perception check is
a) a cognitive bias that makes us listen only to information we already agree with
b) a method teachers use to reward good listeners in the classroom
c) any factor that gets in the way of good listening and decreases our ability to interpret correctly
d) a response that allows you to state your interpretation and ask your partner whether or not that interpretation is correct
View Answer

Answer: d
Explanation: None.

Artificial Intelligence Questions & Answers – Speech Recognition

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Speech Recognition”.

1. What is the dominant modality for communication between humans?
a) Hear
b) Speech

c) Smell
d) None of the mentioned
View Answer

Answer: b
Explanation: Speech is the dominant modality for communication between humans and reliable speech recognition between machines.

2. What kind of signal is used in speech recognition?
a) Electromagnetic signal
b) Electric signal
c) Acoustic signal
d) Radar
View Answer

Answer: c
Explanation: Acoustic signal is used to identify a sequence of words uttered by a speaker.

3. What is viewed as problem of probabilistic inference?
a) Speech recognition
b) Speaking
c) Hearing
d) Utterance
View Answer

Answer: a
Explanation: Speech recognition is viewed as problem of probabilistic inference because different words can sound the same.

4. Which specifies the prior probability of each utterance?
a) Sound model
b) Model
c) Language model
d) All of the mentioned
View Answer

Answer: c
Explanation: Because it contains the group of words which can help to specify the prior probability of each utterance.

5. Which model gives the probability of each word following each other word?
a) Bigram model
b) Diagram model
c) Gram model
d) Speech model
View Answer

Answer: a
Explanation: Bigram model gives the probability of each word following each other word in speech recognition.

6. What is the study of how the language sounds?
a) Speechology
b) Biology
c) Trilogy
d) Phonology
View Answer

Answer: d
Explanation: None.

7. What are periodic changes in pressure that propagate through the air?
a) Air waves
b) Sound waves
c) Rate
d) None of the mentioned
View Answer

Answer: b
Explanation: Sound waves are periodic changes in pressure that propagate through the air and it can be measured by a microphone.

8. What is called as the properties of the signal that extend over interval?
a) Hops
b) Rate
c) Frames
d) All of the mentioned
View Answer

Answer: c
Explanation: Speech system summarize the properties of the signal that extend over interval called frames.

9. Which is used to capture the internal structure of the phones?
a) One-state phone model
b) Two-state phone model
c) Three-state phone mone
d) All of the mentioned
View Answer

Answer: c
Explanation: None.

10. Which are partially captured by triphone model?
a) Articulation effects
b) Coarticulation effects
c) Both Articulation & Coarticulation effects
d) None of the mentioned
View Answer

Answer: b
Explanation: Coarticulation effects are partially captured by triphone model, which can be manipulated by acoustic model.

Artificial Intelligence Questions & Answers – Image Perception

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Image Perception”.

1. Which provides agents with information about the world they inhabit?
a) Sense
b) Perception
c) Reading
d) Hearing
View Answer

Answer: b
Explanation: Perception provides agents with information about the world they inhabit.

2. What is used to initiate the perception in the environment?
a) Sensor
b) Read
c) Actuators
d) None of the mentioned
View Answer

Answer: a
Explanation: A sensor is anything that can record some aspect of the environment.

3. What is the study of light?
a) Biology
b) Lightology
c) Photometry
d) All of the mentioned
View Answer

Answer: c
Explanation: None.

4. How to increase the brightness of the pixel?
a) Sound
b) Amount of light
c) Surface
d) Waves
View Answer

Answer: b
Explanation: The brightness of a pixel in the image is proportional to the amount of light directed towards the camera.

5. How many kinds of reflection are available in image perception?
a) 1
b) 2
c) 3
d) 4
View Answer

Answer: b
Explanation: There are two kinds of reflection. They are specular and diffuse reflection.

6. What is meant by predicting the value of a state variable from the past?
a) Specular reflection
b) Diffuse reflection
c) Gaussian filter
d) Smoothing
View Answer

Answer: d
Explanation: Smoothing meant predicting the value of a state variable from the past and by given evidence and calculating the present and future.

7. How many types of image processing techniques are there in image perception?
a) 1
b) 2
c) 3
d) 4
View Answer

Answer: c
Explanation: The three image processing techniques are smoothing, edge detection and image segmentation.

8. Which is meant by assuming any two neighboring that are both edge pixels with consistent orientation?
a) Canny edge detection
b) Smoothing
c) Segmentation
d) None of the mentioned
View Answer

Answer: a
Explanation: Canny edge detection is assuming any two neighboring that are both edge pixels with consistent orientation and ust belong to the same edge.

9. What is the process of breaking an image into groups?
a) Edge detection
b) Smoothing
c) Segmentation
d) None of the mentioned
View Answer

Answer: c
Explanation: Segmentation is the process of breaking an image into groups, based on the similarities of the pixels.

10. How many types of 3-D image processing techniques are there in image perception?
a) 3
b) 4
c) 5
d) 6
View Answer

Answer: c
Explanation: The five types of 3-D image processing techniques are motion, binocular stereopsis, texture, shading and contour.

Artificial Intelligence Questions and Answers – Robotics – 1

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Robotics – 1”.

1. What is the name for information sent from robot sensors to robot controllers?
a) temperature
b) pressure
c) feedback
d) signal
View Answer

Answer: c
Explanation: None.

2. Which of the following terms refers to the rotational motion of a robot arm?
a) swivel
b) axle
c) retrograde
d) roll
View Answer

Answer: d
Explanation: None.

3. What is the name for the space inside which a robot unit operates?
a) environment
b) spatial base
c) work envelope
d) exclusion zone
View Answer

Answer: c
Explanation: None.

4. Which of the following terms IS NOT one of the five basic parts of a robot?
a) peripheral tools
b) end effectors
c) controller
d) drive
View Answer

Answer: a
Explanation: None.

5. Decision support programs are designed to help managers make:
a) budget projections
b) visual presentations
c) business decisions
d) vacation schedules
View Answer

Answer: c
Explanation: None.

6. PROLOG is an AI programming language which solves problems with a form of symbolic logic known as predicate calculus. It was developed in 1972 at the University of Marseilles by a team of specialists. Can you name the person who headed this team?
a) Alain Colmerauer
b) Niklaus Wirth
c) Seymour Papert

d) John McCarthy
View Answer

Answer: a
Explanation: None.

7. The number of moveable joints in the base, the arm, and the end effectors of the robot determines_____
a) degrees of freedom
b) payload capacity
c) operational limits
d) flexibility
View Answer

Answer: a
Explanation: None.

8. Which of the following places would be LEAST likely to include operational robots?
a) warehouse
b) factory
c) hospitals
d) private homes
View Answer

Answer: d
Explanation: None.

9. For a robot unit to be considered a functional industrial robot, typically, how many degrees of freedom would the robot have?
a) three
b) four
c) six
d) eight
View Answer

Answer: c
Explanation: None.

10. Which of the basic parts of a robot unit would include the computer circuitry that could be programmed to determine what the robot would do?
a) sensor
b) controller
c) arm
d) end effector
View Answer

Answer: b
Explanation: None.

Artificial Intelligence Questions and Answers – Robotics – 2

This set of Artificial Intelligence (AI) MCQs focuses on “Robotics – 2”.

1. Which of the following terms refers to the use of compressed gasses to drive (power) the robot device?
a) pneumatic
b) hydraulic
c) piezoelectric
d) photosensitive
View Answer

Answer: a
Explanation: None.

2. With regard to the physics of power systems used operate robots, which statement or statements is most correct?
a) hydraulics involves the compression of liquids
b) hydraulics involves the compression of air
c) pneumatics involve the compression of air
d) chemical batteries produce AC power
View Answer

Answer: c
Explanation: None.

3. The original LISP machines produced by both LMI and Symbolics were based on research performed at:
a) CMU
b) MIT
c) Stanford University
d) RAMD
View Answer

Answer: b
Explanation: None.

4. Which of the following statements concerning implementation of robotic systems is correct?
a) implementation of robots CAN save existing jobs
b) implementation of robots CAN create new jobs
c) robotics could prevent a business from closing
d) all of the mentioned
View Answer

Answer: d
Explanation: None.

5. Which of the following IS NOT one of the advantages associated with a robotics implementation program?
a) Low costs for hardware and software
b) Robots work continuously around the clock
c) Quality of manufactured goods can be improved
d) Reduced company cost for worker fringe benefits
View Answer

Answer: a
Explanation: None.

6. Which of the following “laws” is Asimov’s first and most important law of robotics?
a) robot actions must never result in damage to the robot
b) robots must never take actions harmful to humans
c) robots must follow the directions given by humans
d) robots must make business a greater profit
View Answer

Answer: b
Explanation: None.

7. In LISP, the function returns t if

Artificial Intelligence Questions and Answers – Natural Language Processing – 1

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “Natural Language Processing – 1”.

1. Natural Language Processing (NLP) is field of
a) Computer Science
b) Artificial Intelligence
c) Linguistics
d) All of the mentioned
View Answer

Answer: d
Explanation: None.

2. NLP is concerned with the interactions between computers and human (natural) languages.
a) True
b) False
View Answer

Answer: a
Explanation: NLP has its focus on understanding the human spoken/written language and convert that interpretation into machine understandable language.

3. One of the main challenge/s of NLP Is _____
a) Handling Ambiguity of Sentences
b) Handling Tokenization
c) Handling POS-Tagging
d) All of the mentioned
View Answer

Answer: a
Explanation: There are enormous ambiguity exists when processing natural language.

4. Modern NLP algorithms are based on machine learning, especially statistical machine learning.
a) True
b) False
View Answer

Answer: a
Explanation: None.

5. Choose form the following areas where NLP can be useful.
a) Automatic Text Summarization
b) Automatic Question-Answering Systems
c) Information Retrieval
d) All of the mentioned
View Answer

Answer: d
Explanation: None.

6. The major tasks of NLP includes
a) Automatic Summarization
b) Discourse Analysis
c) Machine Translation
d) All of the mentioned
View Answer

Answer: d
Explanation: There is even bigger list of tasks of NLP.
http://en.wikipedia.org/wiki/Natural_language_processing#Major_tasks_in_NLP .

7. Coreference Resolution is
a) Anaphora Resolution
b) Given a sentence or larger chunk of text, determine which words (“mentions”) refer to the same objects (“entities”)
c) All of the mentioned
d) None of the mentioned
View Answer

Answer: b
Explanation: Anaphora resolution is a specific type of coreference resolution.

8. Machine Translation
a) Converts one human language to another
b) Converts human language to machine language
c) Converts any human language to English
d) Converts Machine language to human language
View Answer

Answer: a
Explanation: The best known example of machine translation is google translator.

9. The more general task of coreference resolution also includes identifying so-called “bridging relationships” involving referring expressions.
a) True
b) False
View Answer

Answer: a
Explanation: Refer the definition of Coreference Resolution.

10. Morphological Segmentation
a) Does Discourse Analysis
b) Separate words into individual morphemes and identify the class of the morphemes
c) Is an extension of propositional logic
d) None of the mentioned
View Answer

Answer: b
Explanation: None.

Artificial Intelligence Questions and Answers – Natural Language Processing – 2

This set of Artificial Intelligence (AI) Quiz focuses on “Natural Language Processing – 2”.

1. Given a stream of text, Named Entity Recognition determines which pronoun maps to which noun.
a) False
b) True
View Answer

Answer: a
Explanation: Given a stream of text, Named Entity Recognition determines which items in the text maps to proper names.

2. Natural Language generation is the main task of Natural language processing.
a) True
b) False
View Answer

Answer: a
Explanation: Natural Language Generation is to Convert information from computer databases into readable human language.

3. OCR (Optical Character Recognition) uses NLP.
a) True
b) False
View Answer

Answer: a
Explanation: Given an image representing printed text, determines the corresponding text.

4. Parts-of-Speech tagging determines
a) part-of-speech for each word dynamically as per meaning of the sentence
b) part-of-speech for each word dynamically as per sentence structure
c) all part-of-speech for a specific word given as input
d) all of the mentioned
View Answer

Answer: d
Explanation: A Bayesian network provides a complete description of the domain.

5. Parsing determines Parse Trees (Grammatical Analysis) for a given sentence.
a) True

b) False
View Answer

Answer: a
Explanation: Determine the parse tree (grammatical analysis) of a given sentence. The grammar for natural languages is ambiguous and typical sentences have multiple possible analyses. In fact, perhaps surprisingly, for a typical sentence there may be thousands of potential parses (most of which will seem completely nonsensical to a human).

6. IR (information Retrieval) and IE (Information Extraction) are the two same thing.
a) True
b) False
View Answer

Answer: b
Explanation: Information retrieval (IR)
This is concerned with storing, searching and retrieving information. It is a separate field within computer science (closer to databases), but IR relies on some NLP methods (for example, stemming). Some current research and applications seek to bridge the gap between IR and NLP.
Information extraction (IE)
This is concerned in general with the extraction of semantic information from text. This covers tasks such as named entity recognition, Coreference resolution, relationship extraction, etc.

7. Many words have more than one meaning; we have to select the meaning which makes the most sense in context. This can be resolved by
a) Fuzzy Logic
b) Word Sense Disambiguation
c) Shallow Semantic Analysis
d) All of the mentioned
View Answer

Answer: b
Explanation: Shallow Semantic Analysis doesn’t cover word sense disambiguation.

8. Given a sound clip of a person or people speaking, determine the textual representation of the speech.
a) Text-to-speech
b) Speech-to-text
c) All of the mentioned
d) None of the mentioned
View Answer

Answer: b
Explanation: NLP is required to linguistic analysis.

9. Speech Segmentation is a subtask of Speech Recognition.
a) True
b) False
View Answer

Answer: a
Explanation: None.

10. In linguistic morphology, _____ is the process for reducing inflected words to their root form.
a) Rooting
b) Stemming
c) Text-Proofing
d) Both Rooting & Stemming
View Answer

Answer: b
Explanation: None.

Artificial Intelligence Questions and Answers – LISP Programming – 1

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on “LISP Programming – 1”.

1. DEC advertises that it helped to create “the world’s first expert system routinely used in an industrial environment,” called XCON or:
a) PDP-11

b) Rl
c) VAX
d) MAGNOM
View Answer

Answer: b
Explanation: None.

2. Prior to the invention of time-sharing, the prevalent method of computer access was:
a) batch processing
b) telecommunication
c) remote access
d) all of the mentioned
View Answer

Answer: a
Explanation: None.

3. Seymour Papert of the MIT AI lab created a programming environment for children called:
a) BASIC
b) LOGO
c) MYCIN
d) FORTRAN
View Answer

Answer: b
Explanation: None.

4. The Strategic Computing Program is a project of the:
a) Defense Advanced Research Projects Agency
b) National Science Foundation
c) Jet Propulsion Laboratory
d) All of the mentioned
View Answer

Answer: a
Explanation: None.

5. The original LISP machines produced by both LMI and Symbolics were based on research performed at:
a) CMU
b) MIT
c) Stanford University
d) RAMD
View Answer

Answer: b
Explanation: None.

6. In LISP, the addition 3 + 2 is entered as
a) 3 + 2
b) 3 add 2
c) 3 + 2 =
d) (+ 3 2)
View Answer

Answer: b
Explanation: None.

7. Weak AI is
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 using mental models implemented on a computer
d) all of the mentioned
View Answer

Answer: c
Explanation: None.

8. In LISP, the function returns t if is a CONS cell and nil otherwise:
a) (cons)
b) (consp)
c) (eq)
d) (cous =)
View Answer

Answer: b
Explanation: None.

9. In a rule-based system, procedural domain knowledge is in the form of:
a) production rules
b) rule interpreters
c) meta-rules
d) control rules
View Answer

Answer: a
Explanation: None.

10. If a robot can alter its own trajectory in response to external conditions, it is considered to be:
a) intelligent
b) mobile
c) open loop
d) non-servo
View Answer

Answer: a
Explanation: None.

11. In LISP, the function assigns the symbol x to y is
a) (setq y x)
b) (set y = ‘x’)
c) (setq y = ‘x’)
d) (setq y ‘x’)
View Answer

Answer: d
Explanation: None.

12. One of the leading American robotics centers is the Robotics Institute located at:
a) CMU
b) MIT
c) RAND
d) SRI
View Answer

Answer: a
Explanation: None.

Artificial Intelligence Questions and Answers – LISP Programming – 2

This set of Artificial Intelligence test focuses on “LISP Programming – 2”.

1. In LISP, the function (minusp (-20 4 8 8 1) returns
a) T
b) F
c) NIL
d) -20
View Answer

Answer: a
Explanation: None.

2. In LISP, which of the following function assigns the value 10 to the symbol a?
a) (setq a 10)
b) (a = b) where b = 10
c) (a = 10) (d) (setq 10 a)
d) All of the mentioned
View Answer

Answer: a
Explanation: None.

3. In LISP, the atom that stands for “False” is
a) t
b) nil
c) y
d) time
View Answer

Answer: b
Explanation: None.

4. The expert system developed at MIT to solve mathematical problems is known as:

a) RAND
b) ISIS
c) MACSYMA
d) MOLGEN
View Answer

Answer: c
Explanation: None.

5. Which approach to speech recognition avoids the problem caused by the differences in the way words are pronounced according to context?
a) continuous speech recognition
b) connected word recognition
c) isolated word recognition
d) speaker-dependent recognition
View Answer

Answer: c
Explanation: None.

6. A KES knowledge base contains information in the form of:
a) associations
b) actions
c) free text
d) all of the mentioned
View Answer

Answer: d
Explanation: None.

7. In AI programming, a list may contain:
a) cells
b) fields
c) pointers
d) all of the mentioned
View Answer

Answer: d
Explanation: None.

8. In LISP, the function (minusp (-20 4 8 8 1) returns
a) T
b) F
c) NIL
d) -20
View Answer

Answer: a
Explanation: None.

9. Special programs that assist programmers are called:
a) heuristic processors
b) symbolic programmers
c) intelligent programming tools
d) program recognizers
View Answer

Answer: c
Explanation: None.

10. If the English Philosopher Thomas Hobbes could be called ‘grandfather’ of artificial intelligence, then who could be called its father?
a) A.M. Turning
b) John McCarthy
c) Allen Newell
d) Herbert Simon
View Answer

Answer: a
Explanation: None.

Artificial Intelligence Questions and Answers – LISP Programming – 3

This set of AI Interview Questions and Answers for Experienced people focuses on “LISP Programming – 3”.

1. LISP machines also are known as:
a) AI workstations
b) Time-sharing terminals
c) Super mini computers

d) All of the mentioned
View Answer

Answer: a
Explanation: None.

2. Natural language processing can be divided into the two subfields of:
a) context and expectations
b) generation and understanding
c) semantics of pragmatics
d) recognition and synthesis
View Answer

Answer: b
Explanation: None.

3. How many ALU(s) is/are control by one control unit is SIMD (single instruction stream, multiple data stream) architecture?
a) one or more ALUs
b) One ALU
c) Only two ALU
d) Impossible to say
View Answer

Answer: a
Explanation: None.

4. Which of the following function returns t if the object is a number in LISP?
a) (number <object>)
b) (numberp <object>)
c) (numericp <object>)
d) (numeric <object>)
View Answer

Answer: b
Explanation: None.

5. Which of the following have computers traditionally done better than people?
a) storing information
b) responding flexibly
c) computing numerically

d) both storing information & computing numerically
View Answer

Answer: d
Explanation: None.

6. The characteristics of the computer system capable of thinking, reasoning and learning is known is
a) machine intelligence
b) human intelligence
c) artificial intelligence
d) virtual intelligence
View Answer

Answer: c
Explanation: None.

7. What part of the manufacturing process relate to each stage of the process and to the process as a whole?
a) field service
b) design
c) distribution
d) project management
View Answer

Answer: d
Explanation: None.

8. The area of AI that investigates methods of facilitating communication between people and computers is:
a) natural language processing
b) symbolic processing
c) decision support
d) robotics
View Answer

Answer: a
Explanation: None.

9. In the 16th century, a Czech rabbi reportedly created a living clay man whose name has become a synonym for an artificial human. The clay man's name was:
a) Frankenstein
b) Golem
c) Paracelsus
d) Hal
View Answer

Answer: b
Explanation: None.

10. For speech understanding systems to gain widespread acceptance in office automation, they must feature:
a) speaker independence
b) speaker dependence
c) isolated word recognition
d) all of the mentioned
View Answer

Answer: a
Explanation: None.

Artificial Intelligence Questions and Answers – Artificial Intelligence Algorithms

This set of Artificial Intelligence Multiple Choice Questions & Answers (MCQs) focuses on "Artificial Intelligence Algorithms".

1. What is a Cybernetics?
a) Study of communication between two machines
b) Study of communication between human and machine
c) Study of communication between two humans
d) Study of Boolean values
View Answer

Answer: b
Explanation: Cybernetics is Study of communication between human and machine.

2. What is the goal of artificial intelligence?
a) To solve real-world problems
b) To solve artificial problems

c) To explain various sorts of intelligence
d) To extract scientific causes
View Answer

Answer: c
Explanation: The scientific goal of artificial intelligence is to explain various sorts of intelligence.

3. An algorithm is complete if
a) It terminates with a solution when one exists
b) It starts with a solution
c) It does not terminate with a solution
d) It has a loop
View Answer

Answer: a
Explanation: An Algorithm is complete if It terminates with a solution when one exists.

4. Which is true regarding BFS (Breadth First Search)?
a) BFS will get trapped exploring a single path
b) The entire tree so far been generated must be stored in BFS
c) BFS is not guaranteed to find a solution, if exists
d) BFS is nothing but Binary First Search
View Answer

Answer: b
Explanation: Regarding BFS-The entire tree so far been generated must be stored in BFS.

5. What is a heuristic function?
a) A function to solve mathematical problems
b) A function which takes parameters of type string and returns an integer value
c) A function whose return type is nothing
d) A function that maps from problem state descriptions to measures of desirability
View Answer

Answer: d
Explanation: Heuristic function is a function that maps from problem state descriptions to measures of desirability.

6. The traveling salesman problem involves n cities with paths connecting the cities. The time taken for traversing through all the cities, without knowing in advance the length of a minimum tour, is
a) O(n)
b) O(n2)
c) O(n!)
d) O(n/2)
View Answer

Answer: c
Explanation: The traveling salesman problem involves n cities with paths connecting the cities. The time taken for traversing through all the cities, without knowing in advance the length of a minimum tour, is O(n!).

7. The problem space of means-end analysis has
a) An initial state and one or more goal states
b) One or more initial states and one goal state
c) One or more initial states and one or more goal state
d) One initial state and one goal state
View Answer

Answer: a
Explanation: The problem space of means-end analysis has an initial state and one or more goal states.

8. An algorithm A is admissible if
a) It is not guaranteed to return an optimal solution when one exists
b) It is guaranteed to return an optimal solution when one exists
c) It returns more solutions, but not an optimal one
d) It guarantees to return more optimal solutions
View Answer

Answer: b
Explanation: An algorithm A is admissible if It is guaranteed to return an optimal solution when one exists.

9. Knowledge may be
I. Declarative.
II. Procedural.

III. Non-procedural.
a) Only (I) above
b) Only (II) above
c) Only (III) above
d) Both (I) and (II) above
View Answer

Answer: d
Explanation: Knowledge may be declarative and procedural.

10. Idempotency law is
I. P Ú P = P.
II. P Ù P = P.
III. P + P = P.
a) Only (I) above
b) Only (II) above
c) Only (III) above
d) Both (I) and (II) above
View Answer

Answer: a
Explanation: Idempotency Law is P V P = P.