

<https://www.javatpoint.com/artificial-intelligence-mcq>

1) Artificial Intelligence is about\_\_\_\_\_.

- a. Playing a game on Computer
- b. Making a machine Intelligent
- c. Programming on Machine with your Own Intelligence
- d. Putting your intelligence in Machine

**Answer:** b. Making a machine Intelligent.

**Explanation:** Artificial Intelligence is a branch of Computer science, which aims to create intelligent machines so that machine can think intelligently in the same manner as a human does.

2) Who is known as the -Father of AI"?

- a. Fisher Ada
- b. Alan Turing
- c. John McCarthy
- d. Allen Newell

**Answer:** c. John McCarthy

3) Select the most appropriate situation for that a blind search can be used.

- a. Real-life situation
- b. Small Search Space
- c. Complex game
- d. All of the above

**Answer:** b. Small Search Space

**Explanation:** **Blind Search** is also known as **uninformed search**, and it does not contain any domain information such as closeness, location of the goal, etc. Hence the most appropriate situation that can be used for the blind search is Small-search Space.

4) The application/applications of Artificial Intelligence is/are

- a. Expert Systems
- b. Gaming
- c. Vision Systems
- d. All of the above

**Answer:** d. All of the above

5) Among the given options, which search algorithm requires less memory?

- a. Optimal Search

- b. Depth First Search
- c. Breadth-First Search
- d. Linear Search

**Answer:** b. Depth First Search

**Explanation:** The Depth Search Algorithm or DFS requires very little memory as it only stores the stack of nodes from the root node to the current node.

6) If a robot is able to change its own trajectory as per the external conditions, then the robot is considered as the\_\_

- a. Mobile
- b. Non-Servo
- c. Open Loop
- d. Intelligent

**Answer:** d. Intelligent

**Explanation:** If a robot is able to change its own trajectory as per the external conditions, then the robot is considered intelligent. Such type of agents come under the category of AI agents or Rational Agents.

7) Which of the given language is not commonly used for AI?

- a. LISP
- b. PROLOG
- c. Python
- d. Perl

**Answer:** d. Perl

8) A technique that was developed to determine whether a machine could or could not demonstrate the artificial intelligence known as the\_\_

- a. Boolean Algebra
- b. Turing Test
- c. Logarithm
- d. Algorithm

**Answer:** b. Turing Test

9) The component of an Expert system is\_\_\_\_\_.

- a. Knowledge Base
- b. Inference Engine
- c. User Interface

- d. All of the above

**Answer:** d. All of the above

10) Which algorithm is used in the Game tree to make decisions of Win/Lose?

- a. Heuristic Search Algorithm
- b. DFS/BFS algorithm
- c. Greedy Search Algorithm
- d. Min/Max algorithm

**Answer:** d. Min/Max Algorithm

11) The available ways to solve a problem of state-space-search.

- a. 1
- b. 2
- c. 3
- d. 4

**Answer:** b. 2

They are **forward** from the initial state and **backward** from the goal.

12) Among the given options, which is not the required property of Knowledge representation?

- a. Inferential Efficiency
- b. Inferential Adequacy
- c. Representational Verification
- d. Representational Adequacy

**Answer:** C. Representational **Verification**

13) An AI agent perceives and acts upon the environment using\_\_\_\_\_.

- a. Sensors
- b. Perceiver
- c. Actuators
- d. Both a and c

**Answer:** d. Both a and c.

14) Which rule is applied for the Simple reflex agent?

- a. Simple-action rule
- b. Simple &Condition-action rule
- c. Condition-action rule

d. None of the above

**Answer:** c. Condition-action rule

15) Which agent deals with the happy and unhappy state?

a. Utility-based agent

b. Model-based agent

c. Goal-based Agent

d. Learning Agent

**Answer:** a. Utility-based agent

16) Rational agent always does the right things.

a. True

b. False

**Answer:** a. True

17) Which term describes the common-sense of the judgmental part of problem-solving?

a. Values-based

b. Critical

c. Analytical

d. Heuristic

**Answer:** d. Heuristic

18) Which AI technique enables the computers to understand the associations and relationships between objects and events?

a. Heuristic Processing

b. Cognitive Science

c. Relative Symbolism

d. Pattern Matching

**Answer:** d. Pattern Matching

19) The exploration problem is where\_\_\_\_\_.

a. Agent contains the knowledge of State and actions.

b. Agent does not contain the knowledge of State and actions.

c. Only actions are known to the agent.

d. None of the above

**Answer:** b. Agent does not contain knowledge State and actions

20) In the Wumpus World Problem, the reason for the uncertainty is that the agent's sensor gives only\_\_

- a. Full & Global information
- b. Partial & Global Information
- c. Full & local information
- d. Partial & local Information

**Answer:** d. Partial & local Information

21) The search algorithm which is similar to the minimax search, but removes the branches that don't affect the final output is known as\_\_.

- a. Depth-first search
- b. Breadth-first search
- c. Alpha-beta pruning
- d. None of the above

**Answer:** c. Alpha-beta pruning

22) The maximum depth to which the alpha-beta pruning can be applied.

- a. Eight states
- b. Six states
- c. Ten states
- d. Any depth

**Answer:** d. Any depth

23) Among the given options, which is also known as inference rule?

- a. Reference
- b. Reform
- c. Resolution
- d. None of the above

**Answer:** c. Resolution

24) Which of the following option is used to build complex sentences in knowledge representation?

- a. Symbols
- b. Connectives
- c. Quantifier
- d. None of the above

**Answer:** b. Connectives

25) Automatic Reasoning tool is used in\_\_\_\_\_.

- a. Personal Computers
- b. Microcomputers
- c. LISP Machines
- d. All of the above

**Answer:** c. LISP Machine

26) If according to the hypothesis, the result should be positive, but in fact it is negative, then it is known as\_\_\_\_\_.

- a. False Negative Hypothesis
- b. False Positive Hypothesis
- c. Specialized Hypothesis
- d. Consistent Hypothesis

**Answer:** b. False Positive Hypothesis

27) A hybrid Bayesian Network consist\_\_\_\_\_.

- a. Discrete variables only
- b. Discontinuous Variable
- c. Both Discrete and Continuous variables
- d. Continuous Variable only

**Answer:** c. Both Discrete and Continuous Variables

31) The PEAS in the task environment is about\_\_\_\_\_.

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

**Answer:** b. Performance, Environment, Actuators, Sensors

32) In state-space, the set of actions for a given problem is expressed by the\_\_\_\_\_.

- a. Intermediate States
- b. Successor function that takes current action and returns next state
- c. Initial States
- d. None of the above

**Answer:** b. Successor function that takes current action and returns next state

33) In which search problem, to find the shortest path, each city must be visited once only?

- a. Map coloring Problem
- b. Depth-first search traversal on a given map represented as a graph
- c. Finding the shortest path between a source and a destination
- d. Travelling Salesman problem

**Answer:** d. Travelling Salesman problem

36) The main function of problem-solving agent is to\_\_\_\_\_.

- a. Solve the given problem and reach the goal
- b. Find out which sequence of action will get it to the goal state.
- c. Both a & b
- d. None of the above

**Answer:** Both a & b

37) In artificial Intelligence, knowledge can be represented as\_\_\_\_\_.

- i. Predicate Logic
- ii. Propositional Logic
- iii. Compound Logic
- iv. Machine Logic

- a. Both I and II
- b. Only II
- c. Both II and III
- d. Only IV

**Answer:** a. Both I and II

38) For propositional Logic, which statement is false?

- a. The sentences of Propositional logic can have answers other than True or False.
- b. Each sentence is a declarative sentence.
- c. Propositional logic is a knowledge representation technique in AI.
- d. None of the above

**Answer:** a. The sentences of Propositional logic can have answers **other than** True or False

39) First order logic Statements contains\_\_\_\_\_.

- a. Predicate and Preposition
- b. Subject and an Object

- c. Predicate and Subject
- d. None of the above

**Answer:** c. Predicate and Subject

42) The main tasks of an AI agent are\_\_\_\_\_.

- a. Input and Output
- b. Moment and Humanly Actions
- c. Perceiving, thinking, and acting on the environment
- d. None of the above

**Answer:** c. Perceiving, thinking, and acting on the environment

43) The probabilistic reasoning depends upon\_\_\_\_\_.

- a. Estimation
- b. Observations
- c. Likelihood
- d. All of the above

**Answer:** d. All of the above

52) Which of the given **element** improve the performance of AI agent so that it can make better decisions?

- a. Changing Element
- b. Performance Element
- c. Learning Element
- d. None of the above

**Answer:** c. Learning Element

#10. What is the function of an AI "Agent"?

Mapping of goal sequence to an action

Work without direct interference of people

**Mapping of precept sequence to an action**

Mapping of environment sequence to action

#11. Which of the following is not a type of AI agent?

Learning agent

Goal-based agent



Simple reflex agent

**Unity-based agent**

16. Which of the following machine requires input from the humans but can interpret the outputs themselves?

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

[View Answer](#)

Answer: d

24. Which of the following is/are the composition for AI agents?

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

[View Answer](#)

Answer: c

29. What is an AI 'agent'?

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

[View Answer](#)

Answer: d

34. What is Weak AI?

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

[View Answer](#)

Answer: a

**Machine Learning MCQ**

1. Example of Reinforcement learning

**chess game**

object recognition

Weather conditions

price of house

2. Real-Time decisions, Game AI, Learning Tasks, Skill Aquisition, and Robot Navigation are applications in ...

Unsupervised Learning: Clustering

Supervised Learning: Classification

### **Reinforcement Learning**

Unsupervised Learning: Regression

3. How do you handle missing or corrupted data in a dataset?

Drop missing rows or columns

Replace missing values with mean/median/mode

Assign a unique category to missing values

### **All of the above**

4. Which among the below options are types of Feature engineering? (May choose multiple answers)

Replacing missing value

### **Getting mean value from a group of entities**

### **Extracting city from home address**

Changing hyper-parameter values

5. What is overfitting?

When a predictive model is accurate but takes too long to run

When the model learns specifics of the training data that can't be generalized to a larger data set

### **When you perform hyperparameter tuning and performance degrades**

When you apply a powerful deep learning algorithm to a simple machine learning problem

1. A heuristic is a way of trying \_\_\_\_\_

a) To discover something or an idea embedded in a program

b) To search and measure how far a node in a search tree seems to be from a goal

c) To compare two nodes in a search tree to see if one is better than another

d) All of the mentioned

View Answer

Answer: d

2. A\* algorithm is based on \_\_\_\_\_

a) Breadth-First-Search

b) Depth-First –Search

c) Best-First-Search

d) Hill climbing

View Answer

Answer: c

1. What is the main task of a problem-solving agent?

- a) Solve the given problem and reach to goal
- b) To find out which sequence of action will get it to the goal state
- c) All of the mentioned
- d) None of the mentioned

View Answer

Answer: c

2. What is state space?

- a) The whole problem
- b) Your Definition to a problem
- c) Problem you design
- d) Representing your problem with variable and parameter

View Answer

Answer: d

3. The problem-solving agent with several immediate options of unknown value can decide what to do by just examining different possible sequences of actions that lead to states of known value, and then choosing the best sequence. This process of looking for such a sequence is called Search.

- a) True
- b) False

View Answer

Answer: a

4. A search algorithm takes \_\_\_\_\_ as an input and returns \_\_\_\_\_ as an output.

- a) Input, output
- b) Problem, solution
- c) Solution, problem
- d) Parameters, sequence of actions

View Answer

Answer: b

5. A problem in a search space is defined by one of these state.

- a) Initial state
- b) Last state
- c) Intermediate state
- d) All of the mentioned

View Answer

Answer: a

Explanation: A problem has four components initial state, goal test, set of actions, path cost.

6. The Set of actions for a problem in a state space is formulated by a \_\_\_\_\_

- a) Intermediate states
- b) Initial state
- c) Successor function, which takes current action and returns next immediate state

d) None of the mentioned

[View Answer](#)

Answer: c

7. A solution to a problem is a path from the initial state to a goal state. Solution quality is measured by the path cost function, and an optimal solution has the **highest path cost** among all solutions.

a) True

b) False

[View Answer](#)

Answer: b

8. The process of removing detail from a given state representation is called \_\_\_\_\_

a) Extraction

b) Abstraction

c) Information Retrieval

d) Mining of data

[View Answer](#)

Answer: b

11. Web Crawler is a/an \_\_\_\_\_

a) Intelligent goal-based agent

b) Problem-solving agent

c) Simple reflex agent

d) Model based agent

[View Answer](#)

Answer: a

12. What is the major component/components for measuring the performance of problem solving?

a) Completeness

b) Optimality

c) Time and Space complexity

d) All of the mentioned

[View Answer](#)

Answer: d

13. A production rule consists of \_\_\_\_\_

a) A set of Rule

b) A sequence of steps

c) Set of Rule & sequence of steps

d) Arbitrary representation to problem

[View Answer](#)

Answer: c

15. Which is the best way to go for Game playing problem?

a) Linear approach

b) Heuristic approach (Some knowledge is stored)

c) Random approach

d) An Optimal approach

View Answer

Answer: b

6. In which agent does the problem generator is present?

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

View Answer

Answer: a

5. Agents **behavior** can be best described by \_\_\_\_\_

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

View Answer

Answer: b

10. The Task Environment of an agent consists of \_\_\_\_\_

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

View Answer

Answer: d

2. What is state space?

- a) The whole problem
- b) Your Definition to a problem
- c) Problem you design
- d) Representing your problem with variable and parameter

View Answer

Answer: d

1. \_\_\_\_\_ are mathematical problems defined as a set of objects whose state must satisfy a number of constraints or limitations.

- a) Constraints Satisfaction Problems
- b) Uninformed Search Problems
- c) Local Search Problems
- d) All of the mentioned

View Answer

Answer: a

2. Which of the Following problems can be modeled as CSP?

- a) 8-Puzzle problem

- b) 8-Queen problem
- c) Map coloring problem
- d) All of the mentioned

View Answer

Answer: d

☐ Artificial Intelligence is about\_\_\_\_\_.

☐ Playing a game on Computer

☒ **Making a machine intelligent**

☐ Programming on machine with your own intelligence

☐ Putting your intelligence in machine

☐ How many layers a shallow network has?

☒ **One**

☐ Two

☐ Three

☒ **No set demarcation**

☐ Can rule bases engine (Expert Systems ) interpolate for in-between conditions (not specifically coded)

☐ Yes

☒ **No**

☐ Either

☐ What is the full form of “AI”?

☐ Artificially Intelligent

☒ **Artificial Intelligence**

☐ Artificially Intelligence

☐ Advanced Intelligence

☐ What is Artificial Intelligence?

☐ A field that aims to make humans more intelligent

☐ A field that aims to improve the security

☒ **A field that aims to develop intelligent machines**

☐ A field that aims to mine the data

☐ Which of the following is the branch of AI?

☒ **Machine Learning**

☐ Cyber forensics

☐ Full-Stack Developer

☐ Network Design

☐ \_\_\_\_\_ is the goal of artificial intelligence.

☐ To solve artificial problems

☐ To extract scientific causes

☒ **To explain various sorts of intelligence**

☐ To solve real-world problems

☐ Which of the following is an application of AI?

☐ It helps to exploits vulnerabilities to secure the organization

☒ **Language understanding and problem-solving (Text analytics and NLP)**

☐ Easy to create a website

☐ It helps to deploy applications on the cloud

☐ Who is the inventor of AI?

☐ Geoffrey Hinton

☐ Andrew Ng

☒ **John McCarthy**

☐ Jürgen Schmidhuber

☐ DARPA, the agency that has funded a great deal of American Artificial Intelligence research, is part of the Department of \_\_\_\_\_

☒ **Defence**

☐ Energy

☐ Education

☐ Justice

☐ Which year Google invested in driverless Car?

☐ 2000

☐ 2004

☒ **2010**

☐ 2014

☐ Fine-tuned model from one field may not work in other field

☒ **True**

☐ False

☐ Don't know

☐ A.M. Turing developed a technique for determining whether a computer could or could not demonstrate the artificial Intelligence, Presently, this technique is called \_\_\_\_\_

☒ **Turing Test**

☐ Algorithm

☐ Boolean Algebra

☐ Logarithm

☐ What was originally called the "imitation game" by its creator?

☒ **The Turing Test**

☐ LISP

☐ The Logic Theorist

☐ Cybernetics



☐ Which programming language is most used for AI?

☒ **Python**

☐ Java

☐ Lisp

☐ R

☐ Prolog

☐ Bottom Up Approach focuses on \_\_\_\_\_

☒ **on action and behavior**

☐ on action and function

☐ on representation and function

☐ on representation and behavior

☐ Which of the following is an advantage of artificial intelligence?

☐ AI reduces the time taken to solve problem

☐ AI helps in providing security

☐ AI have the ability to think hence makes the work easier

☒ **All of the above**

☐ Which of the following is an expansion of Artificial Intelligence application?

☐ Game Playing

☐ Planning and Scheduling

☐ Diagnosis

☒ **All of the mentioned**

☐ Natural language understanding is used in:

☐ Natural language interfaces

☐ Natural language front ends

☐ Text understanding systems

☒ **All of the above**

☐ An AI technique that allows computers to understand associations and relationships between objects and events is called:

☐ Heuristic processing

☐ Cognitive science

☐ Relative symbolism

☒ **Pattern matching**

☐ Geo-fencing is technique to \_\_\_\_\_ in specified locations

☒ **Keep all your equipment**

☐ Targeted advertisements

☐ Keep Personnel

☐ All of the above

☐ How can you handle missing or corrupted data in a dataset?

☐ Drop missing rows or columns

☐ Assign a unique category to missing values

☐ Replace missing values with mean/median/mode

☒ **All of the above**

☐ Machine learning algorithms build a model based on sample data, known as \_\_\_\_\_

☒ **Training Data**

☐ Transfer Data

☐ Data Training

☐ None of the above

☐ A Machine Learning technique that helps in detecting the outliers in data.

☐ Clustering

☐ Classification

☒ **Anomaly Detection**

☐ All of the above

☐ Real-Time decisions, Game AI, Learning Tasks, Skill acquisition, and Robot Navigation are applications of .....

☒ **Reinforcement Learning**

☐ Supervised Learning: Classification

☐ Unsupervised Learning: Regression

☐ None of the above

☐ Which of the following is not a supervised learning?

☐ Naive Bayesian

☒ **PCA**

☐ Linear Regression

☐ Decision Tree

☐ Which of the following is not type of learning?

☐ Unsupervised Learning

☐ Supervised Learning

☒ **Semi-supervised Learning**

☐ Reinforcement Learning

☐ Targeted marketing, Recommended Systems, and Customer Segmentation are applications in which of the following

☐ Supervised Learning: Classification

☒ **Unsupervised Learning: Clustering**

☐ Unsupervised Learning: Regression

☐ Reinforcement Learning

☐ Fraud Detection, Image Classification, Diagnostic, and Customer Retention are applications in which of the following

☐ Unsupervised Learning: Regression

☒ **Supervised Learning: Classification**

☐ Unsupervised Learning: Clustering

☐ Reinforcement Learning

☐ A heuristic is a way of trying \_\_\_\_\_

☐ To discover something or an idea embedded in a program

☐ To search and measure how far a node in a search tree seems to be from a goal

☐ To compare two nodes in a search tree to see if one is better than the other is

☐ **All of the mentioned**

☐ What is the term used for describing the judgmental or common-sense part of problem solving?

☐ **Heuristic**

☐ Critical

☐ Value based

☐ Analytical

☐ A search algorithm takes \_\_\_\_ as an input and returns \_\_\_\_ as an output.

☐ Input, output

☐ **Problem, solution**

☐ Solution, problem

☐ Parameters, sequence of actions

☐ A problem in a search space is defined by one of these state

☐ **Initial state**

☐ Last state

☐ Intermediate state

☐ All of the mentioned

☐ \_\_\_\_\_ are used for perceiving and \_\_\_\_\_ are used for acting upon the environment?

☐ **Sensors and Actuators**

☐ Sensors

☐ Perceiver

☐ None of the above

☐ What is meant by agent's percept sequence?

☐ Used to perceive the environment

☐ Complete history of actuator

☒ **Complete history of perceived things**

☐ None of the above

☐ What is the function of an artificial intelligence "Agent"?

☐ Mapping of goal sequence to an action

☐ Work without the direct interference of the people

☒ **Mapping of precept sequence to an action**

☐ Mapping of environment sequence to an action

☐ What is the rule of simple reflex agent?

☐ Simple-action rule

☒ **Condition-action rule**

☐ Simple & Condition-action rule

☐ None of the above

☐ The composition for agents in artificial intelligence are \_\_\_\_\_

☐ Program only

☐ Architecture only

☒ **Both Program and Architecture**

☐ None of the above

☐ In which agent does the problem generator is present?

☒ **Learning agent**

☐ Observing agent

☐ Reflex agent

☐ None of the above

☐ Which agent deals with happy and unhappy states?

☐ Simple reflex agent

☐ Model based agent

☐ Learning agent

☒ **Utility based agent**

☐ What is an 'agent'?

☐ Perceives its environment through sensors and acting upon that environment through actuators

☐ Takes input from the surroundings and uses its intelligence and performs the desired operations

☐ A embedded program controlling line following robot

☒ **All of the above**

☐ Agents behavior can be best described by \_\_\_\_\_

☐ Perception sequence

☒ **Agent function**

☐ Sensors and Actuators

☐ Environment in which agent is performing

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

☒ **True**

☐ False

☐ Performance Measures are fixed for all agents.

☒ **True**

☐ False

☐ An omniscient agent knows the actual outcome of its actions and can act accordingly; but omniscience is impossible in reality

☒ **True**

☐ False

☐ Rational Agent always does the right thing; but Rationality is possible in reality.

☐ True

☒ **False**

☐ The Task Environment of an agent consists of \_\_\_\_\_

☐ Sensors

☐ Actuators

☐ Performance Measures

☒ **All of the mentioned**

☐ Categorize **Crossword puzzle** in Fully Observable / Partially Observable.

☒ **Fully Observable**

☐ Partially Observable

☐ All of the mentioned

☐ None of the mentioned

☐ The game of Poker is a single agent.

☐ True

☒ **False**

☐ What is called an exploration problem?

☒ **State and actions are unknown to the agent**

☐ State and actions are known to the agent

☐ Only actions are known to agent

☐ None of the mentioned

☐ An expert system differs from a database program in that only an expert system:

☐ Contains declarative knowledge

☒ **Contains procedural knowledge**

☐ Features the retrieval of stored information

☐ Expects users to draw their own conclusions

☐ Treatment chosen by doctor for a patient for a disease is based on \_\_\_\_\_

☐ Only current symptoms

☐ Current symptoms plus some knowledge from the textbooks

☒ **Current symptoms plus some knowledge from the textbooks plus experience**

☐ All of the mentioned

☐ A knowledge-based agent can combine general knowledge with current percepts to infer hidden aspects of the current state prior to selecting actions.

☒ **True**

☐ False

☐ Choose the correct option:

A - Knowledge base (KB) is consists of set of statements

B - Inference is deriving a new sentence from the KB.

☒ **A is true, B is true**

☐ A is false, B is false

☐ A is true, B is false

☐ A is false, B is true

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

☐ real-life situation

☐ complex game

☒ **small search space**

☐ all of the mentioned

☐ Which search method takes less memory?

☒ **Depth-First Search**

☐ Breadth-First search



☐ \_\_\_\_\_ are mathematical problems defined as a set of objects whose state must satisfy a number of constraints or limitations.

☒ **Constraints Satisfaction Problems**

☐ Uninformed Search Problems

☐ Local Search Problems

☐ All of the mentioned

☐ Which of the Following problems can be modeled as CSP?

☐ 8-Puzzle problem

☐ 8-Queen problem

☐ Map coloring problem

☒ **All of the mentioned**

☐ What among the following constitutes to the **incremental formulation of CSP**?

☐ Path cost

☐ Goal cost

☐ Successor function

☒ **All of the mentioned**

☐ The term \_\_\_\_\_ is used for a depth-first search that chooses values for one variable at a time and returns when a variable has no legal values left to assign.

☐ Forward search

☒ **Backtrack search**

☐ Hill algorithm

☐ Reverse-Down-Hill search

☐ To overcome the need to backtrack in constraint satisfaction problem can be eliminated by \_\_\_\_\_

☒ **Forward Searching**

☐ Constraint Propagation

☐ Backtrack after a forward search

❏ Omitting the constraints and focusing only on goals

✓ 1. Large Neural Networks with more than 100 layers are true replica of human brain. 1/1

☐ a. True

☒ b. False ✓

✓ 2. Which one of the following sentence is correct? 1/1

☒ a. Artificial Intelligence is a broader concept; it includes Machine Learning and Deep learning ✓

☐ b. Machine Learning is a broader concept; it includes Artificial Intelligence and Deep learning.

✓ 3. While designing a board game what learning technique will you use? 1/1

☐ a. Supervised learning

☐ b. Unsupervised learning

☒ c. Reinforcement learning ✓

✓ 4. Self-driving cars and virtual assistants, like Siri are examples of: 1/1

☒ a. Weak AI. ✓

☐ b. Strong AI.

✓ 5. What were original 3Vs of Big Data? 1/1

☒ a. Volume, Value and Variety ✓

☐ b. Volume, Variety and Veracity

☐ c. Volume, Velocity and Variety

☐ d. Volume, Value and Veracity

✗ 6. Turing Test is aimed at proving that a computer (machine): 0/1

☐ a. Acts like human.

☐ b. Thinks like human.

☐ c. Acts rationally.

☒ d. Thinks rationally. ✗

Correct answer

☒ a. Acts like human.

✓ 7. In Statistical models, compared to Machine Learning models, computational needs are generally:

1/1

☒ a. Shortened.



☐ b. Similar.

☐ c. Detailed.

✓ 8. You can define the Fringe node as:

1/1

☐ a. Very first node in a search.

☐ b. Node which does not have any child.

☒ c. Nodes that have not been expanded yet.



☐ d. Nodes that are part of pruned tree.

✓ 9. For successful Heuristic Search: (only one of the options is correct)

1/1

☐ a. Exact cost through each of the path must be known.

☐ b. Exact cost through most optimal path must be known.

☒ c. Any function which is indicative of remaining cost is needed.



☐ d. Any function which is indicative of current cost (cost already incurred) is needed.

✓ 10. In Genetic Algorithms:

1/1

- ☐ a. A successor state is generated by combining two parent states.
- ☐ b. Higher value of fitness function represents better state.
- ☐ c. Produce the next generation of states by selection, crossover, and mutation.
- ☒ d. All of above. ✓

✓ 11. Culling is:

1/1

- ☐ a. Mutation of states.
- ☐ b. State with highest non attacking pairs.
- ☐ c. Cross Over of states.
- ☒ d. Ignore the states below threshold. ✓

✓ 12. What is Deep Web?

1/1

- ☐ a. Part of World Wide Web that is multiple layers deep.
- ☐ b. Part of World Wide Web that is indexed by search engines.
- ☒ c. Part of World Wide Web that is not indexed by search engines. ✓
- ☐ d. Part of World Wide Web that is accessible to Deep Neural Networks.

✓ 13. Uninformed search is

1/1

- ☒ a. More complex. ✓
- ☐ b. Quick solution.
- ☐ c. Less complex.
- ☐ d. Guarantees the best solution.

✓ 14. Which one is not a type of agent in AI terminology?

1/1

- ☐ a. Simple Reflex Agent
- ☒ b. Clearing Agent
- ☐ c. Goal-based Agent
- ☐ d. Learning Agent



✓ 15. For self-driving car, which one is not a performance factor? 1/1

- ☐ a. Safety
- ☒ b. Steering
- ☐ c. Smoothness of operations
- ☐ d. Swift transitions

