

નોંધ : વિદ્યાર્થીએ માત્ર ૩૫ પ્રશ્નો જ ટીક કરવાના રહેશે. જો વધારે ટીક કરેલ હશે તો પ્રથમ ૩૫ પ્રશ્નો જ ગણતરીમાં લેવામાં આવશે.

- 1) What are the main goals of AI?
(A) To Create Expert Systems (B) To Implement Human Intelligence in Machines
(C) Both A and B (D) None of the Above
- 2) Who is the father of Artificial Intelligence?
(A) Doug Cutting (B) John McCarthy (C) William S. (D) RasmusLerdorf
- 3) Which of the following is an application of AI?
(A) Gaming (B) Expert Systems (C) Vision Systems (D) All of the above
- 4) Which of the following, is a component of an expert system?
(A) inference engine (B) knowledge base (C) user interface (D) All of the above
- 5) What are difficulties in NLU?
(A) Lexical ambiguity (B) Syntax Level ambiguity (C) Both A and B (D) None
- 6) 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
- 7) Which of the mentioned human behavior does the AI aim to mimic?
(A) Thinking (B) Eating (C) Sleeping (D) None of the above
- 8) Which function will select the lowest expansion node at first for evaluation?
(A) Greedy best-first search (B) Best-first search (C) Depth-first search (D) None of the mentioned
- 9) What is the other name of informed search strategy?
(A) Simple search (B) Heuristic search (C) Online search (D) None of the mentioned
- 10) Which of the following are comprised within AI?
(A) Machine Learning (B) Deep Learning (C) Both (1) and (2) (D) None of the above
- 11) Which of the following definitions correctly defines the State-space in an AI system?
(A) A state space can be defined as the collection of all the problem states
(B) A state space is a state which exists in environment which is in outer space
(C) A state space is the total space available for the agent in the state
(D) All of the above
- 12) AI Technique is a manner to organize and use the knowledge efficiently in such a way that _____.
(A) It should be perceivable by the people who provide it. (B) It should be easily modifiable to correct errors.
(C) Both A and B (D) None of the Above
- 13) 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
- 14) Which method is used to search better by learning?
(A) Best-first search (B) Depth-first search (C) Metalevel state space (D) None of the mentioned
- 15) Artificial Intelligence is a way of _____.
(A) making a computer (B) a computer-controlled robot (C) software think intelligently (D) All of the above
- 16) In AI systems, Knowledge can be represented in two ways. What are these two ways?
A_ Machine Logic (B) Predicate Logic (C) Propositional Logic (D) Compound Logic
(A) i. and ii. (B) i. and iii. (C) ii. and iii. (D) iii. and iv.
- 17) 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
- 18) What are Semantic Networks?
(A) A way of representing knowledge (B) Data Structure (C) Data Type (D) None of the mentioned
- 19) The values of the set membership is represented by _____.
(A) Discrete Set (B) Degree of truth (C) Probabilities (D) Both Degree of truth & Probabilities
- 20) The characteristics of the computer system capable of thinking, reasoning and learning is known as
(A) machine intelligence (B) human intelligence (C) artificial intelligence (D) virtual intelligence
- 21) What is the frame?
(A) A way of representing knowledge (B) Data Structure (C) Data Type (D) None of the mentioned
- 22) What is the complexity of minimax algorithm?
(A) Same as of DFS (B) Space – bm and time – bm (C) Time – bm and space – bm (D) Same as BFS
- 23) What is the dominant modality for communication between humans?
(A) Hear (B) Speech (C) Smell (D) None of the mentioned
- 24) The process by which you become aware of messages through your sense is called _____.
(A) Organization (B) Sensation (C) Interpretation-Evaluation (D) Perception
- 25) What is the main challenge/s of NLP?
(A) Handling Ambiguity of Sentences (B) Handling Tokenization (C) Handling POS-Tagging (D) All of the mentioned
- 26) 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

- 27) General games involves _____
 (A) Single-agent (B) Multi-agent (C) Neither Single-agent nor Multi-agent (D) Only Single-agent and Multi-agent
- 28) Fuzzy Set theory defines fuzzy operators. Choose the fuzzy operators from the following.
 (A) AND (B) OR (C) NOT (D) All of the mentioned
- 29) The network that involves backward links from output to the input and hidden layers is called _____.
 (A) Self organizing maps (B) Perceptrons (C) Recurrent neural network (D) Multi layered perceptron
- 30) 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
- 31) Which of the following elements constitutes the frame structure?
 (A) Facts or Data (B) Procedures and default values (C) Frame names (D) Frame reference in hierarchy
- 32) 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
- 33) Which provides agents with information about the world they inhabit?
 (A) Sense (B) Perception (C) Reading (D) Hearing
- 34) What is 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
- 35) 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) Both A and B
 (D) None of the Above
- 36) Depth-First Search is implemented in recursion with _____ data structure.
 (A) LIFO (B) LILO (C) FIFO (D) FILO
- 37) Which of the following is an advantage of using an expert system development tool?
 (A) imposed structure (B) knowledge engineering assistance (C) rapid prototyping (D) all of the mentioned
- 38) 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
- 39) 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
- 40) A* algorithm is based on _____.
 (A) Breadth-First-Search (B) Depth-First-Search (C) Uniform Cost Search (D) Best-First-Search
- 41) (A) Knowledge base (K(B) is consists of set of statements. (B) Inference is deriving a new sentence from the KB.
 Choose the correct option.
 (A) A is true, B is true (B) A is false, B is false (C) A is true, B is false (D) A is false, B is true
- 42) When will Hill-Climbing algorithm terminate?
 (A) Stopping criterion met (B) Global Min/Max is achieved
 (C) No neighbor has higher value (D) All of the above
- 43) What is the form of Knowledge representation?
 (A) IF-THEN (B) IF-THEN-ELSE (C) IF-ELSE (D) All of the above
- 44) Which data structure conveniently used to implement BFS?
 (A) Stacks (B) Queues (C) Priority Queues (D) None of the Above
- 45) 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
- 46) "In AI systems, Knowledge can be represented in two ways. What are these two ways?
 (i) MachineLogic (ii) PredicateLogic (iii) PropositionalLogic (iv) CompoundLogic"
 (A) i. and ii. (B) i. and iii. (C) ii. and iii. (D) iii. and iv.
- 47) which of the following is Capabilities of Expert Systems?
 (A) Possessing human capabilities (B) Suggesting alternative options to a problem
 (C) Refining their own knowledge (D) Substituting human decision makers
- 48) Which of the following is not a benefits of Expert Systems?
 (A) Availability (B) Speed (C) Time (D) Less Error Rate
- 49) Data, information, and past experience combined together are termed as _____.
 (A) Inference (B) Acquisition (C) Vision (D) knowledge
- 50) Artificial neural network used for
 (A) Pattern Recognition (B) Classification (C) Clustering (D) All of these