CA 304 Artificial Intelligence MCQs

Sr.No.	Questions	Answer
1	What is Artificial intelligence? A. Putting your intelligence into Computer B. Programming with your own intelligence C. Making a Machine intelligent D. Playing a Game	C
2	Which of the following is not an application of AI? A. Intelligent Robots B. Handwriting Recognition C. Speech Recognition D. Content mining	D
3	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	A
4	A* algorithm is based on A. Breadth-First-Search B. Depth-First –Search C. Best-First-Search D. Hill climbing.	C
5	How do you represent “All dogs have tails”. A. ∀x: dog(x)->hastail(x) B. ∀x: dog(x)->hastail(y) C. ∀x: dog(y)->hastail(x) D. ∀x: dog(x)->has->tail(x)	A
6	Which search method takes less memory? A. Depth-First Search B. Breadth-First search C. Both (a) and (b) D. Optimal search	A
7	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 a space where You know the solution.	D
8	Which is not a property of representation of knowledge? A. Representational Verification	A

	B. Representational Adequacy C. Inferential Adequacy D. Inferential Efficiency	
9	A production rule consists of A. A set of Rule B. A sequence of steps C. Both (a) and (b) D. Arbitrary representation to problem	C
10	Which of the following is also called First order Logic? A. Lower Order Calculus B. First Order Predicate Calculus C. Quantification Theory D. All of these	D
11	Single inference rule also called… A. Resolution B. Reference C. Reference D. None of these	A
12	Which of the following are the example of the intelligent agents… A. robot B. human C. Autonomous Spacecraft D. All of these	D
13	Important AI Techniques are A. Search B. Use of knowledge C. Abstraction D. All of the above	D
14	In Travel salesman problem, If there are N cities, then the number of different paths among them is …… A. 1.2….(N-1) or (N-1)!= N! B. (N-1)! C. N!-2 D. None of the above	A
15	Which search method takes less memory? A. Depth-First Search B. Breadth-First search C. Optimal search D. Linear Search	A
16	Treatment chosen by doctor for a patient for a disease is based on A. Only current symptoms B. Current symptoms plus some knowledge from the textbooks C. Current symptoms plus some knowledge from the textbooks plus experience D. All of the mentioned	C
17	Which is not Familiar Connectives in First Order Logic?	D

	A. and B. iff C. or D. not	
18	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	A
19	_____ is/are the way/s to represent uncertainty. A. Fuzzy Logic B. Probability C. Entropy D. All of the mentioned	D
20	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	A
21	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	C
22	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	B
23	What is the problem space of means-end analysis? 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	A
24	What is another type of default reasoning? A. Monotonic reasoning B. Analogical reasoning C. Bitonic reasoning D. Non-monotonic reasoning	D
25	The process of removing detail from a given state representation is called A Extraction B Abstraction C Information retrieval D Mining of data	B
26	A robot's "arm" is also known as its	C

	A End effector B Actuator C Manipulator D Servomechanism	
27	In default logic, which of the following inference rules of the form is allowed? A. (a : b) / c B. A / (b : c) C. A / b D. A / b : c	A
28	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	A
29	How many states are available in state-space search? A. 1 B. 2 C. 3 D. 4	D
30	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	D
31	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	D
32	The “Turing machine” showed that you could use a/an system to program any algorithmic task. A. Binary B. Electro-chemical C. Recursive D. Semantic	A
33	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 $\sim q \rightarrow \sim p$	D
34	Which action sequences are used to achieve the agent’s goal?	D

	A. Search B. Plan C. Retrieve D. Both search & plan	
35	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	C
36	First order logic is also known as A. First order predicate calculus B. Quantification theory C. All of the mentioned D..None	C
37	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	C
38	What are Semantic Networks? A. A way of representing knowledge B. Data Structure C. Data Type D. None of the mentioned	A
39	Which is a refutation complete inference procedure for propositional logic? A. Clauses B. Variables C. Propositional resolution D. Proposition	C
40	Which algorithm are in more similar to backward chaining algorithm? A. Depth-first search algorithm B. Breadth-first search algorithm C. Hill-climbing search algorithm D. All of the mentioned	A
41	Which is also called single inference rule? A. Reference B. Resolution C. Reform D. None of the mentioned	B
42	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	A

43	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	A
44	Translate the following statement into First Order Logic. “For every a, if a is a PhD student, then a has a master degree” A. ∀ a PhD(a) -> Master(a) B. ∃ a PhD(a) -> Master(a) C. A is true, B is true D. A is false, B is false	A
45	Constraint satisfaction problems on finite domains are typically solved using a form of _____ A. Search Algorithms B. Heuristic Search Algorithms C. Greedy Search Algorithms D. All of the mentioned	D
46	Web Crawler is a/an _____ A. Intelligent goal-based agent B. Problem-solving agent C. Simple reflex agent D. Model based agent	A
47	What was originally called the “imitation game” by its creator? A. The Turing Test B. LISP C. The Logic Theorist D. Cybernetics	A
48	Which algorithm takes two sentences and returns a unifier? A. Inference B. Hill-climbing search C. Depth-first search D. Unify algorithm	D
49	What is the process of capturing the inference process as a single inference rule? A. Ponens B. Clauses C. Generalized Modus Ponens D. Variables	C
50	What is the heuristic function of greedy best-first search? A. f(n) != h(n) B. f(n) < h(n) C. f(n) = h(n) D. f(n) > h(n)	C
51	Which search is complete and optimal when h(n) is consistent? A. Best-first search B. Depth-first search	D

	C. Both Best-first & Depth-first search D. A* search	
52	Which of the following is the knowledge representation technique used to represent knowledge about stereotype situation? A. Semantic Network B. Frames C. Scripts D. Conceptual Dependency	C
53	Forward chaining systems are _____ where as backward chaining systems are _____ A. Goal-driven, goal-driven B. Goal-driven, data-driven C. Data-driven, goal-driven D. Data-driven, data-driven	C
54	_____ trees can be used to infer in Horn clause systems. A. Min/Max Tree B. And /Or Trees C. Minimum Spanning Trees D. Binary Search Trees	B
55	How many types of quantification are available in artificial intelligence? A.1 B.2 C.3 D.4	B
56	Which of the following is not the style of inference? A. Forward Chaining B. Backward Chaining C. Resolution refutation D. Modus Ponen	D
57	Which is the best way to go for Game playing problem? A. Linear approach B. Heuristic approach C. Random approach D. Optimal approach	B
58	Logic reasoning is the process of drawing conclusions from A. Symbolic Rules B. Inference Rules C. Logic Rules D. All of the mentioned	B
59	Which data structure conveniently used to implement BFS? A. Stacks B. Queues C. Priority Queues D. None of the Above	B
60	Which of the following are uninformed search technique/techniques?	D

	A. BFS B. DFS C. Bidirectional Search D. All of the above mentioned	
61	The goals of AI systems can be described in terms of cognitive tasks like A. Recognizing objects B. Answering questions C. Manipulating robotic devices D. All of the above	D
62	Blind searching is general term for A. Informed Search B. Uninformed Search C. Informed & Unformed Search D. Heuristic Search	B
63	Which data structure conveniently used to implement DFS? A. Stacks B. Queues C. Priority Queues D. All of the mentioned	A
64	Backtracking is based on, A. Last in first out B. First in first out C. Recursion D. Both Last in first out & Recursion	D
65	Which is the most straightforward approach for planning algorithm? A. Best-first search B. State-space search C. Depth-first search D. Hill-climbing search	B
66	Which of the following is not an application of AI? A. Intelligent Robots B. Handwriting Recognition C. Speech Recognition D. Content mining	D
67	Which is the first AI programming language? a) BASIC b) FORTRAN c) IPL(Inductive logic programming) d) LISP	D
68	What is the space complexity of Depth-first search? a) O(b) b) O(bl) c) O(m) d) O(bm)	D
69	Which search method will expand the node that is closest to the goal? a) Best-first search	B

	b) Greedy best-first search c) A* search d) None of the mentioned	
70	……. are means for transforming the problem from one state to another. A. States B. Operators C. Heuristic D. None of the above	B
71	One method of programming a computer to exhibit human intelligence is called modeling or A. Simulation B. Cognitization C. Duplication D. None	A
72	Computers normally solve problem by breaking them down into a series of yes-or-no decisions represented by 1s and 0s. What is the name of the logic that allows computers to assign numerical values that fail somewhere between 0 and 1? A. Human logic B. Fuzzy Logic C. Boolean Logic D. Operational Logic	B
73	Which particular generation of computers is associated with artificial intelligence? A. Second B. Fourth C. Fifth D. Third	C
74	…….. is called the father of AI. A. James C Gosling B. Dennis Ritchie C. Alan Turing D. Isaac Newton	C
75	We also use knowledge about what we know, called …….. A. Meta-Knowledge B. Performance Knowledge C. Standard knowledge D. Specific knowledge	A
76	The goals of AI systems can be described in terms of cognitive tasks like A. Recognizing objects B. Answering questions C. Manipulating robotic devices D. All of the above	D
77	Monotonic Reasoning is a process in which A. A reasoning process that moves in one direction only	D

	B. The conclusions derived are valid deductions and they remain so. C. The number of facts in the knowledge base is always increasing D. All of the mentioned	
78	The existing conclusions may be invalidated if we add some more information to our knowledge base. A. Monotonic Reasoning B. Common Sense Reasoning C. Non-monotonic Reasoning D. Heuristics	C
79	What among the following constitutes 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	D
80	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	A
81	Which of the following is not a part of fuzzy logic Systems Architecture A. Fuzzification Module B. Knowledge Base C. Defuzzification Module D. Interference base	D
82	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	A
83	Frames in artificial intelligence is derived from semantic nets. A. TRUE B. FALSE	A
84	Fuzzy Set theory defines fuzzy operators. Choose the fuzzy operators from the following. A. AND B. OR C. NOT D. All of the mentioned	D
85	What among the following is/are the best example of semantic networks? A. Wordnet B. Human Food Chain C. MYSIN D. Autonomous car driver	A
86	Fuzzy logic is usually represented as _____ A. IF-THEN-ELSE rules	B

	B. IF-THEN rules C. Both IF-THEN-ELSE rules & IF-THEN rules D. None of the mentioned	
87	_____ is/are the way/s to represent uncertainty. A. Fuzzy Logic B. Probability C. Entropy D. All of the mentioned	D
88	Fuzzy Computing A. doesn't deal with 2 valued logic B. mimics human behaviour C. deals with information which is vague, imprecise, uncertain, ambiguous, inexact, or probabilistic D. All of the above	D
89	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	A
90	A _____ is a probabilistic graphical model which represents a set of variables and their conditional dependencies using a directed acyclic graph A. Neural Network B. Bayesian Network C. Genetic Algorithm D. None of the mentioned	B
91	What are the limitations of the semantic networks? A. Intractability B. Lack in expressing some of the properties C. Incomplete D. Has memory constraints	B
92	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	A
93	Semantic Network represents _____ A. Syntactic relation between concepts B. Semantic relations between concepts C. All of the mentioned D. None of the mentioned	B
94	Which of the following is an extension of the semantic network? A. Expert Systems B. Rule Based Expert Systems C. Decision Tree Based networks D. Partitioned Networks	D

95	Which of the following statements correctly define knowledge representation in AI? A. It is the way in which facts and information are stored in the storage system of the agent B. It is the way in which we feed the knowledge in machine understandable form C. We modify the knowledge and convert it into the format which is acceptable by the machine D. All of the above	A
96	Which problem can frequently occur in backward chaining algorithm? A. Repeated states B. Incompleteness C. Complexity D. Both Repeated states & Incompleteness	D
97	What are the types of knowledge? A. Declarative Knowledge B. Procedural Knowledge C. Heuristic knowledge D. all of the above	D
98	What will happen if two literals are identical? A. Remains the same B. Added as three C. Reduced to one D. None of the mentioned	C
99	"Translate the following statement into FOL. “For every a, if a is a PhD student, then a has a master degree”" A. ∀ a PhD(a) -> Master(a) B. ∃ a PhD(a) -> Master(a) C. A is true, B is true D. A is false, B is false	A
100	A representation in which the control information necessary to use the knowledge is embedded in the knowledge itself A. Procedural Knowledge B. Declarative Knowledge C. Symbolic Knowledge D. All of the mentioned	A