Artificial intelligence

1. Artificial Intelligence (AI) is one of the newest disciplines, formally initiated in ___ when the name was coined.
Ans. 1956

2. AI is the part of computer science concerned with designing ___ computer systems.
Ans. intelligent

3. ___ are used regularly in manufacturing.
Ans. Robots

4. Expert systems are not used regularly in finance, medicine.
Ans. False

5. During 1940s and 1950s, Norbert Wiener, coined the term ___.
Ans. Cybernetics

6. In late___, Newell and Simon developed The Logic Theorist, considered by many to be the first AI program.
Ans. 1955

7. In ___ the first computer-controlled autonomous vehicle, the Stanford Cart, is built.
Ans. 1979

8. The European Common Market countries have jointly initiated a separate cooperative plan named the ___ program.
Ans. ESPRIT

9. ALV stands for ___.
Ans. Autonomous Land Vehicle

10. Which consortium was formed to develop advanced technologies that apply AI techniques?
Ans. Microelectronics and Computer Technology Corporation (MCC)

11. Minsky (1985) in his book ___ provides a long and formidable list of attributes of intelligence.
Ans. The Society of Mind

12. The ___ principle of AI is the physical symbol system hypothesis.
Ans. second

13. The ___ principle is also used in language processing where words can have many meanings.
Ans. fourth

14. What is the fourth principle of AI?
Ans. search compensates for lack of knowledge

15. ___ is perhaps one area which has been studied continuously since the birth of artificial intelligence in 1956.
Ans. Chess

16. ___ is using an Injection Molding Advisor to diagnose faults and suggest repairs for a plastic injection molding mechanisms.
Ans. Kodak

17. Successful demonstrations in vision from 1965 to 1975 were limited to problems in which ___ such as shadows, highlights, and occlusions were not too troublesome.
Ans. 3-D phenomena

18. The ___ is a self-contained laboratory vehicle for research in autonomous outdoor navigation.
Ans. Navlab

19. ___ are the sequence of events that occur.
Ans. Scenes

20. Which study shows that the number of deployed expert systems increased from 50 in 1987 to 1400 in 1988?
Ans. Gartner Study

21. State space search is a process used in the field of ___ in which successive configurations or states of an instance are considered, with the goal of finding a goal state with a desired property.
Ans. Artificial intelligence (AI)

22. State space search used in AI is same as traditional computer science search methods. (State True or False)
Ans. False

23. ___ are good representations for board games such as Tic-Tac-Toe.
Ans. State spaces

24. A ___ is a computer program typically used to provide some form of artificial intelligence, which consists primarily of a set of rules about behavior.
Ans. Production system (or production rule system)

25. ___ searches are performed by diving downward into a tree as quickly as possible.
Ans. Depth-first

26. Heuristics is a rule of thumb or judgmental technique that leads to a solution some of the time but provides no guarantee of success. (State True or False)
Ans. True

27. What is the time complexity of Depth-First search?
Ans. O(bd).

28. Generate-and-test, like depth-first search, requires that ___ ___ solutions be generated for testing.
Ans. complete

29. Understanding natural language often requires knowledge of typical ___.
Ans. sequences

30. ___ performs structure elucidation in organic chemistry based on data from a mass spectrometer
Ans. Dendral

31. Knowledge representation is an area of ___ whose fundamental goal is to represent knowledge in a manner that facilitates inferencing from knowledge.
Ans. Artificial intelligence

32. We usually define the representation in terms of ___ that can be manipulated by programs.
Ans. Symbols

33. What is the central issue in knowledge representation?
Ans. Retrieval

34. In the ___ formal computer knowledge representation languages and systems arose.
Ans. 1980s

35. ___ is accumulated knowledge about the world.
Ans. Long-term Knowledge

36. The collection of long-term knowledge is often called a ___ ___.
Ans. knowledge base

37. ___ is the ability to represent the required knowledge.
Ans. Representational Adequacy

38. The simplest way of storing facts is to use a ___ method where each fact about a set of objects is set out systematically in columns.
Ans. Relational

39. What represents knowledge as formal logic?
Ans. Inferential knowledge

40. Sometimes values of attributes are specified explicitly when a ___ base is created.
Ans. Knowledge

41. Separate levels of understanding require different levels of ___.
Ans. Primitives

42. Choosing the Granularity of Representation Primitives are fundamental concepts such as holding, seeing.
(State True or False)
Ans. True

43. FOPL stands for ___.
Ans. First Order Predicate Logic

44. ___ is a variant of generate-and-test in which feedback from the test procedure is used to help the generator decide which direction to move in the search space.
Ans. Hill climbing

45. What is annealing schedule?
Ans. Annealing schedule is the rate at which the system is cooled.

46. Best First Search is a combination of ___ searches.
Ans. Depth first and breadth first

47. ___ is a priority queue of nodes that have been evaluated by the heuristic function but which have not yet been expanded into successors.
Ans. OPEN

48. ___ will always find an optimal path to a goal if the heuristic function is admissible.
Ans. A*

49. ___ logic deals with the determination of the truth of a sentence.
Ans. Propositional

50. A ___ is a relation in which there is only one value for a given input.
Ans. Function

51. The notation $\alpha \rightarrow \beta$ says that β can be derived from α by ___.
Ans. Inference.

52. An inference rule is sound if the conclusion is true in all cases in which the ___ are true.
Ans. Premises

53. A ___ clause is one in which no variables occur in the expression.
Ans. Ground

54. ___ is the process of removing existential quantifiers by elimination.
Ans. Skolemization

55. ___ is a syntactic inference procedure which, when applied to a set of clauses, determines if the set is unsatisfiable.
Ans. Resolution

56. ___ algorithm is a straightforward recursion procedure.
Ans. Unification

57. In creating a ___, it is essential first to identify all relevant objects which will play some role in the anticipated inferences.
Ans. Knowledge base

58. In propositional logic, it is easy to determine that two literals cannot both be true at the same time.
(State True or False)
Ans. True

59. Languages with precisely defined syntax and semantics are called ___.
Ans. Logics

60. ___ are elementary atomic sentences.
Ans. Propositions

61. An ___ for a sentence or group of sentences is an assignment of a truth value to each propositional symbol.
Ans. Interpretation

62. Whenever a thought occurs to an agent, an actor may act upon it. What is this called? ___
Ans. REASON causation

63. What is the process of turning a predicate into an object in a knowledge representation system called? ___
Ans. reification

64. ___ Semantic Networks is an extension to Semantic nets that overcome a few problems or extend their expression of knowledge.
Ans. Partitioned

65. What is the for a collection of attributes or slots and associated values that describe some real world entity.
Ans. frame

66. An object has a particular attribute if it has that attribute itself, or if it is an instance of a class that has that attribute. (State True or False)
Ans. True

67. The ___ indicates the number of slots that an object has, and the name of each slot.
Ans. class

68. A ___ is a special class whose elements are themselves classes.
Ans. metaclass

69. One way to determine the equivalence of two sentences is by using ___.
Ans. truth tables

70. ___ networks are an alternative to predicate logic as a form of knowledge representation.
Ans. Semantic

71. Conceptual Dependency (CD) is a content theory of how to represent simple sentences and was created by___.
Ans. Roger Schank

72. ___ refers to a transfer of possession - the abstract transfer of possession from one person to another, as in a give or a buy.
Ans. ATRANS

73. ___ frequently uses ___ as an instrumental action.
Ans. MBUILD, ATTEND

74. What refers to the application of force to an object? ___
Ans. PROPEL

75. ___ and ___ are two primary flavors of conceptual-level relations.
Ans. CAUSE, BI-CAUSE