

Midterm Exam (Second Semester) 2020/2021

Course: Artificial Intelligence

Course Code:CS460

Level: 4th

Lecturer: Dr. Ahmed Fouad Ali

Date: 26/4/2021

Total marks: 40

Time allowed: 30 min.

1. Enter Your Full Name? *

أمانى حمدي عودة محمد

2. Enter Your Section Number? *

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3. Theselecting actions based on percepts in learning agent approach. *
(1 Point)

- ☐ problem generator
- ☐ critic
- ☐ learning element
- ☒ performance element

4. The art of creating machines that perform functions that require intelligence when performed by people is an example of acting rationally in AI. *

(1 Point)

- ☐ True
- ☒ False

5. In the N-queens problem, any state can be designated as the initial state. *

(1 Point)

- ☐ True
- ☒ False

6. In a learning agent, Critic provides feedback on the agent's performance based on a fixed performance standard. *

(1 Point)

- ☒ True
- ☐ False

7. Goal-based acts by reasoning about which actions achieve the goal. *

(1 Point)

- ☒ True
- ☐ False

8. Problem formulation is the process of deciding what actions and states to consider, given a goal. *

(1 Point)

- ☒ True
- ☐ False

9. In a Turing test, a computer passes the test if a human interrogator can tell the written responses come from a person or from a computer. *

(1 Point)

- ☐ True
- ☒ False

10. Optimality means the algorithm guaranteed to find a solution when there is one. *

(1 Point)

- ☐ True
- ☒ False

11. The exciting new effort to make computers think is called *

(1 Point)

- ☐ thinking rationally
- ☐ acting rationally
- ☒ thinking humanly
- ☐ acting humanly

12. The agent program maps any given percept sequence to an action. *

(1 Point)

- ☐ True
- ☒ False

13. The agents take future events into consideration *
(1 Point)

- ☐ model based
- ☐ utility based
- ☐ simple reflex
- ☒ goal based

14. The frontier in breadth-first search uses a *
(1 Point)

- ☐ linked list
- ☐ priority queue
- ☒ queue
- ☐ stack

15. A Part-picking robot is an example of a single agent environment. *
(1 Point)

- ☒ True
- ☐ False

16. The determines whether a given state is a goal state in the problem formulation. *
(1 Point)

- ☐ transition model
- ☒ goal test
- ☐ initial state

☐ actions

17. In a problem formulation, a description of what each action does is the goat test step. *

(1 Point)

☐ True

☒ False

18. Roads and pedestrians are actuators in a taxi driver agent. *

(1 Point)

☐ True

☒ False

19. The explored set is used in a search. *

(1 Point)

☐ exploration

☐ exploitation

☐ tree

☒ graph

20. A graph can have loops and self-loops. *

(1 Point)

☒ True

☐ False

21. The study of how to make computers do things at which, at the moment, people are better is called *
(1 Point)

- ☐ thinking rationally
- ☐ acting rationally
- ☐ thinking humanly
- ☒ acting humanly

22. Simple reflex agents have an internal state which is used to keep track of past states of the world. *
(1 Point)

- ☐ True
- ☒ False

23. The sensors detect all aspects that are relevant to the choice of action in environment. *
(1 Point)

- ☒ fully observable
- ☐ non observable
- ☐ partially observable
- ☐ semi observable

24. A tree has edges. *
(1 Point)

- ☒ $n-1$
- ☐ zero

☐ n

☐ n + 1

25. The study of the design of intelligent agents is an example of acting humanly in AI.

*

(1 Point)

☐ True

☒ False

26. The agent function is a concrete implementation, running within some physical system. *

(1 Point)

☐ True

☒ False

27. The node has no parent in the tree search. *

(1 Point)

☒ root

☐ predecessor

☐ successor

☐ leaf

28. Breadth-first search (BFS) is called path first. *

(1 Point)

☐ deepest

☒ shortest

- ☐ longest
- ☐ cheapest

29. The law of thought approach is an example of thinking rationally in AI *
(1 Point)

- ☒ True
- ☐ False

30. The frontier in the depth-first search uses a *
(1 Point)

- ☐ linked list
- ☐ priority queue
- ☐ queue
- ☒ stack

31. The suggests actions that will lead to new and informative experiences in learning agent approach. *
(1 Point)

- ☒ problem generator
- ☐ critic
- ☐ learning element
- ☐ performance element

32. Breadth-first search (BFS) is an example of a (an) search. *
(1 Point)

- ☒ blind
- ☐ goal based
- ☐ guided
- ☐ informed

33. A crossword puzzle is an example of aagent. *

(1 Point)

- ☐ double
- ☒ single
- ☐ semi
- ☐ multi

34. Theagents are based on condition-action rules. *

(1 Point)

- ☐ model based
- ☐ utility based
- ☒ simple reflex
- ☐ goal based

35. The goal test in the 8-queens problem is.....queens on the board without any attack. *

(1 Point)

- ☐ one
- ☐ no
- ☒ all

☐ four

36. The agents have a function to measure of happiness. *
(1 Point)

- ☐ model based
- ☒ utility based
- ☐ simple reflex
- ☐ goal based

37. The Turing test approach is an example of *
(1 Point)

- ☐ thinking rationally
- ☐ acting rationally
- ☐ thinking humanly
- ☒ acting humanly

38. The cognitive modeling approach is an example of thinking humanly in AI. *
(1 Point)

- ☒ True
- ☐ False

39. Taxi driving is an example of a environment. *
(1 Point)

- ☐ fully observable
- ☐ non observable

☒ partially observable

☐ semi observable

40. Simple reflex agents are agents which in addition to state information have a kind of goal information that describes desirable situations. *

(1 Point)

☐ True

☒ False

41. Taxi driving is an example of a deterministic environment. *

(1 Point)

☐ True

☒ False

42. A crossword puzzle is an example of a fully observable environment. *

(1 Point)

☒ True

☐ False

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