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NPTEL (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » Fundamentals of Artificial intelligence (course)[Announcements \(announcements\)](#) [About the Course \(preview\)](#) [Q&A \(forum\)](#) [Progress \(student/home\)](#) [Mentor \(student/mentor\)](#)[Review Assignment \(assignment_review\)](#) [Course Recommendations !\[\]\(cf531ed27e91483460120fcc057b3901_img.jpg\) \(/course_recommendations\)](#)

Course outline

[About NPTEL \(\)](#)[How does an NPTEL
online course work? \(\)](#)[Week 0: Prerequisites
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Problem Solving \(\)](#)

Assignment 1

The due date for submitting this assignment has passed.**Due on 2024-08-07, 23:59 IST.**

Assignment submitted on 2024-08-07, 22:33 IST

1) Aristotle was one of the firsts to attempt to codify "thinking". His _____ provided patterns of argument structure that always **1 point** gave correct conclusions, given correct premises.

- ☐ A. deductions
- ☐ B. formalism
- ☒ C. syllogisms

☐ Lec 1: Introduction to Artificial Intelligence (unit?unit=17&lesson=18)

☐ Lec 2: Problem Solving as State Space Search (unit?unit=17&lesson=19)

☐ Lec 3: Uninformed Search (unit?unit=17&lesson=20)

☒ **Quiz: Assignment 1 (assessment?name=137)**

☐ Feedback Form week 1 (unit?unit=17&lesson=21)

Week 2: Problem Solving by Search - I ()

Week 3: Problem Solving by Search - II ()

Week 4: Knowledge Representation and Reasoning - I ()

Week 5: Knowledge Representation and Reasoning - II ()

Week 6: Knowledge Representation and Reasoning - III ()

☐ D. axioms

Yes, the answer is correct.

Score: 1

Accepted Answers:

C. syllogisms

2) The _____ developed in 1957 by Alan Newell and Herbert Simon, embodied a grandiose vision: a single computer program that could solve any problem.

1 point

☒ A. General Problem Solver

☐ B. Imitation Game

☐ C. Logic Theorist

☐ D. Enigma Machine

Yes, the answer is correct.

Score: 1

Accepted Answers:

A. General Problem Solver

3) Of the different dimensions of Artificial Intelligence, "Think Rationally" is to

1 point

☐ A. Model human cognition.

☒ B. Formalize the inference process.

☐ C. Do the right thing.

☐ D. Exhibit human behaviour.

Yes, the answer is correct.

Score: 1

Accepted Answers:

B. Formalize the inference process.

4) Selecting rules and keeping track of those sequences of rules already tried constitute what we call the _____ for production systems.

1 point

☐ A. Goal Stack

Week 7: Reasoning under Uncertainty ()

Week 8: Planning ()

Week 9: Planning and Decision Making ()

Week 10: Machine Learning - I ()

Week 11: Machine Learning - II ()

Week 12: Machine Learning - III ()

Text Transcripts ()

Download ()

Books ()

Live Session ()

- ☒ B. Control Strategy
☐ C. Inference Engine
☐ D. Database

Yes, the answer is correct.

Score: 1

Accepted Answers:

B. Control Strategy

5) Assertion A: AI Production System with informed control system have high control strategy cost. **1 point**

Reason R: At the informed extreme, the control strategy is guided by information about the problem domain, incurs cost in terms of storage and computation.

Mark the correct choice as

- ☐ A. Both A and R are true and R is the correct explanation for A
☐ B. Both A and R are true but R is not the correct explanation for A
☐ C. A is True but R is False
☒ D. A is false but R is True

No, the answer is incorrect.

Score: 0

Accepted Answers:

A. Both A and R are true and R is the correct explanation for A

6) _____ aims at building machines that act intelligently, without taking a position on whether or not the machines actually are intelligent. **1 point**

- ☒ A. Weak AI
☐ B. Strong AI
☐ C. Connectionist AI
☐ D. Symbolic AI

Yes, the answer is correct.

Score: 1

Accepted Answers:

A. *Weak AI*

7) Domain knowledge is used to make preferential choice between the child nodes in _____

1 point

- ☐ A. Depth First Search
- ☐ B. Breadth First Search
- ☒ C. Heuristic Search
- ☐ D. Depth Limited Search

Yes, the answer is correct.

Score: 1

Accepted Answers:

C. *Heuristic Search*

8) For more complex games, such as chess or checker the AND/OR search to termination is out of question. Which of the following statements are true? **1 point**

- I. Our goal in searching such a game tree might be, instead, merely to find a good first move.
- II. Extract from the search graph an estimate of the 'best' first move.

- ☐ A. Both I and II.
- ☐ B. Only II
- ☐ C. Only I
- ☒ D. Both I and II are false.

No, the answer is incorrect.

Score: 0

Accepted Answers:

A. *Both I and II.*

9) The AO* algorithm can best be seen as the following TWO major operations:

1 point

- ☐ A. Step I: Top-down: graph-growing; Step II: Bottom-up: cost-revising, SOLVE-labelling.
- ☐ B. Step I: Bottom-up: graph-growing; Step II: Top-down: cost-revising, SOLVE-labelling.

- ☒ C. Step I: Top-down: graph-growing, SOLVE-labelling; Step II: Bottom-up: cost-revising.
☐ D. Step I: Bottom-up: graph-growing, SOLVE-labelling; Step II: Top-down: cost-revising.

No, the answer is incorrect.

Score: 0

Accepted Answers:

A. Step I: Top-down: graph-growing; Step II: Bottom-up: cost-revising, SOLVE-labelling.

10) The _____ is a way of combining the advantages of both depth-first and breadth- first search into a single method.

1 point

- ☒ A. Iterative Deepening Depth First Search
☐ B. Bidirectional Search
☐ C. Best First Search.
☐ D. Depth Limited Search

No, the answer is incorrect.

Score: 0

Accepted Answers:

C. Best First Search.