AI

Section Id :	64065357825
Section Number :	4
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	9
Number of Questions to be attempted :	9
Section Marks :	25
Display Number Panel :	Yes
Section Negative Marks :	0
Group All Questions :	No
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	640653120735
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Number : 93 Question Id : 640653820750 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0

Question Label : Multiple Choice Question

THIS IS QUESTION PAPER FOR THE SUBJECT "DEGREE LEVEL : AI: SEARCH METHODS FOR PROBLEM SOLVING (COMPUTER BASED EXAM)"

ARE YOU SURE YOU HAVE TO WRITE EXAM FOR THIS SUBJECT?

CROSS CHECK YOUR HALL TICKET TO CONFIRM THE SUBJECTS TO BE WRITTEN.

(IF IT IS NOT THE CORRECT SUBJECT, PLS CHECK THE SECTION AT THE TOP FOR THE SUBJECTS REGISTERED BY YOU)

Options :

6406532754908. ✔ YES

6406532754909. ✖ NO

Question Number : 94 Question Id : 640653820751 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0

Question Label : Multiple Choice Question

Options :

6406532754910. ✔ Printed graph sheets were provided to me.

6406532754911. ✖ Printed graph sheets were not provided to me.

6406532754912. ✖ I did not use graph sheets.

Sub-Section Number : 2

Sub-Section Id : 640653120736

Question Shuffling Allowed : No

Is Section Default? : null

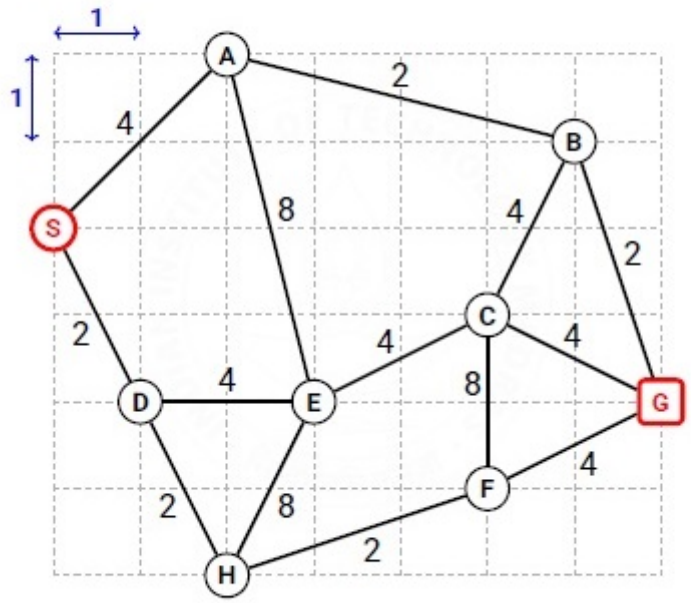
Question Id : 640653820752 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (95 to 99)

Question Label : Comprehension

SEARCH

The figure shows a map on a uniform grid where each tile is 1x1 in size.
The start node is S and the goal node is G.
The MoveGen function returns nodes in alphabetical order.
Use Manhattan Distance as the heuristic function.
Tie-breaker: If several nodes have the same cost, use node labels to break the tie.



Based on the above data, answer the given subquestions.

Sub questions

Question Number : 95 Question Id : 640653820753 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Short Answer Question

What is the path found by the Best First Search algorithm? Enter the path as a comma separated

list of node labels.

NO SPACES, TABS, DOTS, BRACKETS OR EXTRANEOUS CHARACTERS.

Answer format: S,X,Y,Z

Response Type : Alphanumeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Answers Case Sensitive : No

Text Areas : PlainText

Possible Answers :

S,D,E,C,G

Question Number : 96 Question Id : 640653820754 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Short Answer Question

What is the path found by A* search algorithm? Enter the path as a comma separated list of node labels.

NO SPACES, TABS, DOTS, BRACKETS OR EXTRANEOUS CHARACTERS.

Answer format: S,X,Y,Z

Response Type : Alphanumeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Answers Case Sensitive : No

Text Areas : PlainText

Possible Answers :

S,D,H,F,G

Question Number : 97 Question Id : 640653820755 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Short Answer Question

What is the path found by Branch-and-Bound search algorithm? Enter the path as a comma separated list of node labels.

Use the Branch-and-Bound variation that avoids cyclic expansions like S,A,S,A,S,A,...

NO SPACES, TABS, DOTS, BRACKETS OR EXTRANEOUS CHARACTERS.

Answer format:S,X,Y,Z

Response Type : Alphanumeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Answers Case Sensitive : No

Text Areas : PlainText

Possible Answers :

S,A,B,G

Question Number : 98 Question Id : 640653820756 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

For the given map, which algorithm finds the shortest path from S to G?

Options :

6406532754916. ✖ Best First Search

6406532754917. ✖ A* Search Algorithm

6406532754918. ✔ Branch-and-Bound Search Algorithm

6406532754919. ✖ None of these.

Question Number : 99 Question Id : 640653820757 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

What can you say about the heuristic function for the given graph?

Options :

6406532754920. ✖ Admissible.

6406532754921. ✔ Inadmissible.

6406532754922. ✖ Partly admissible and partly inadmissible.

6406532754923. ✖ Cannot be determined.

Sub-Section Number :	3
Sub-Section Id :	640653120737
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Id : 640653820758 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (100 to 103)

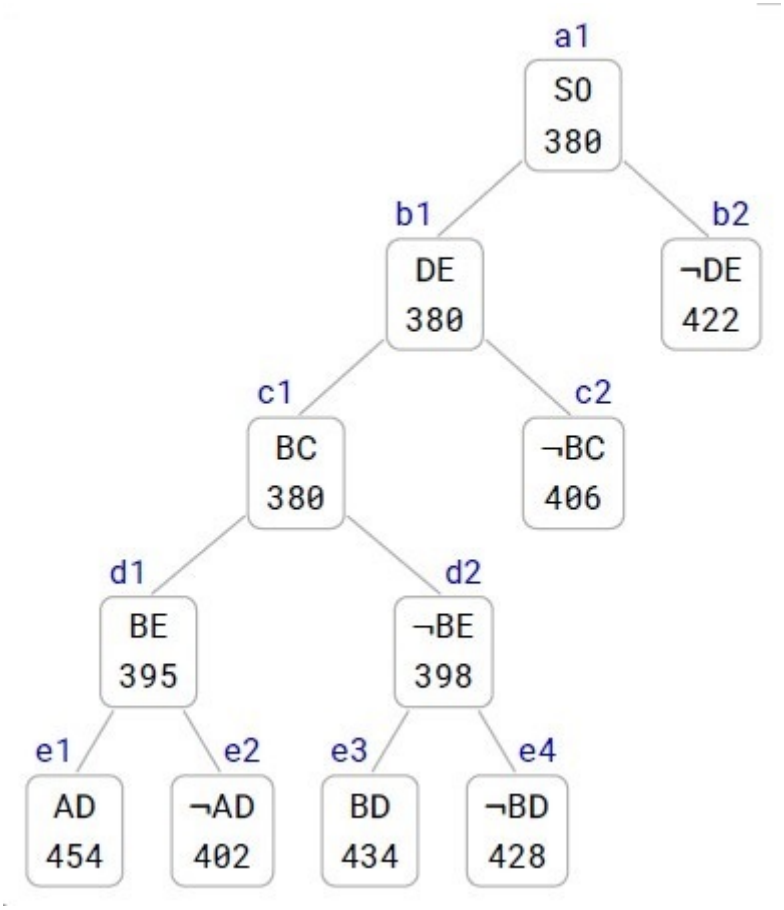
Question Label : Comprehension

TSP Branch-and-Bound

The TSP Branch-and-Bound algorithm is solving a TSP instance where the cities are A, B, C, ... and so on. The Branch-and-Bound search tree at the time when **the algorithm has discovered the optimal tour** is shown below.

Each node in the search tree displays an edge (either XY or ~XY), a cost value, and a unique reference number (a1, b1, b2, c1, c2, d1, d2, e1, e2, e3, e4). Use the reference numbers to break ties. When required, enter the reference numbers in short answers.

What information can you glean from the search tree? Answer the sub-questions based on the information gleaned from the search tree.



Based on the above data, answer the given subquestions.

Sub questions

Question Number : 100 Question Id : 640653820759 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Short Answer Question

Let S0 (ref. no. a1) be the first node to be refined, identify the next 4 nodes (2nd to 5th node) that are refined by the TSP Branch-and-Bound algorithm. Enter the nodes (node reference numbers) in the order they are refined.

Enter a comma separated list of node reference numbers.

NO SPACES, TABS, DOTS, BRACKETS OR EXTRANEOUS CHARACTERS.

Answer format: a9,b9,c9,d9

Response Type : Alphanumeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Answers Case Sensitive : No

Text Areas : PlainText

Possible Answers :

b1,c1,d1,d2

Question Number : 101 Question Id : 640653820760 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Short Answer Question

Which node represents the optimal tour and what is the cost of the optimal tour? Enter the node reference number and the tour cost in the text box, or enter NIL if it is not possible to determine the optimal tour.

Enter a node reference number followed by tour cost, separated by comma.

NO SPACES, TABS, DOTS, BRACKETS OR EXTRANEOUS CHARACTERS.

Answer format: a9,42

Response Type : Alphanumeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Answers Case Sensitive : No

Text Areas : PlainText

Possible Answers :

e2,402

Question Number : 102 Question Id : 640653820761 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Short Answer Question

Determine the number of cities in the TSP instance. Enter the number of cities in the text box, or enter NIL if it is not possible to determine the number of cities.

Enter an integer.
NO SPACES, TABS, DOTS, BRACKETS OR EXTRANEOUS CHARACTERS.
Answer format: 42

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

6

Question Number : 103 Question Id : 640653820762 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Short Answer Question

Start from city A, what is the path representation of the optimal tour? Enter the path representation in the text box, or enter NIL if it is not possible to determine the optimal tour.

Enter a comma separated list of cities (city labels).
NO SPACES, TABS, DOTS, BRACKETS OR EXTRANEOUS CHARACTERS.
Answer format: A,B,C

Response Type : Alphanumeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Set

Answers Case Sensitive : No

Text Areas : PlainText

Possible Answers :

A,C,B,E,D,F

A,F,D,E,B,C

Sub-Section Number :	4
Sub-Section Id :	640653120738
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Id : 640653820763 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

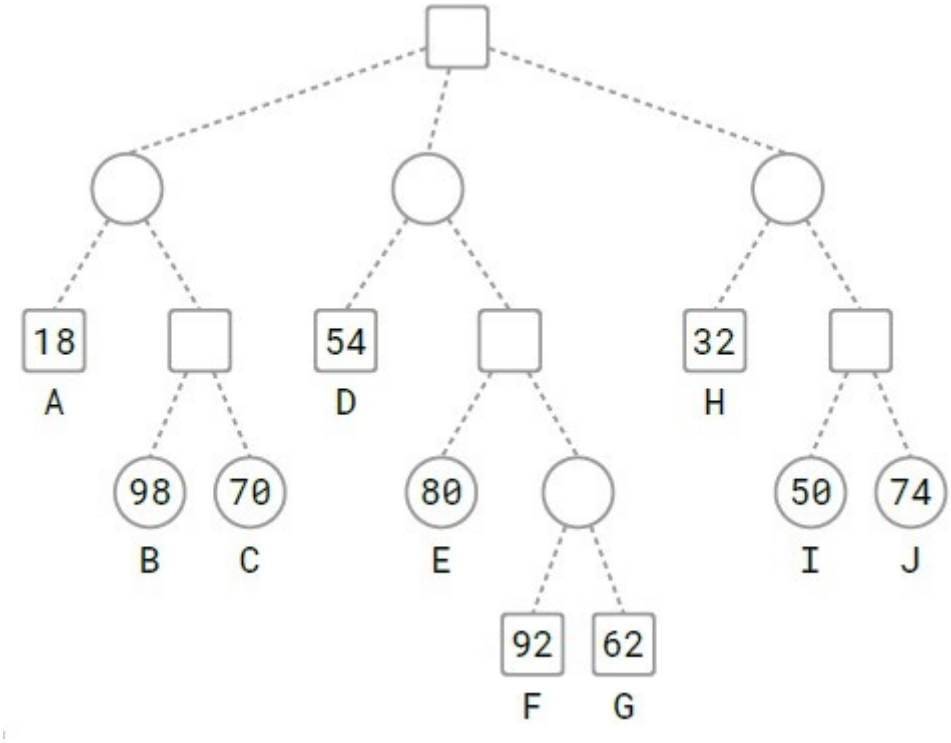
Question Numbers : (104 to 107)

Question Label : Comprehension

GAMES

The figure shows a game tree with evaluation function values at the leaf nodes.
The leaf nodes are labeled from A to J.
Use these labels to enter a leaf node or a list of leaf nodes in short answers (textbox).

Tie-breaker: when several nodes carry the same best cost then select the deepest node, if tie persists then select the leftmost of the deepest nodes.



Based on the above data, answer the given subquestions.

Sub questions

Question Number : 104 Question Id : 640653820764 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Max. Selectable Options : 0

Question Label : Multiple Select Question

Which of the following is a strategy for the MAX player?

Options :

6406532754928. ✔ A,C

6406532754929. ✖ A,D,H

6406532754930. ✔ D,F,G

6406532754931. ✖ E,I,J

Question Number : 105 Question Id : 640653820765 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Short Answer Question

List the leaf nodes in the best strategy for MAX. Enter the node labels in alphabetical order.

Enter a comma separated list of node labels in alphabetical order.

NO SPACES, TABS, DOTS, BRACKETS OR EXTRANEOUS CHARACTERS.

Answer format: X,Y,Z

Response Type : Alphanumeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Answers Case Sensitive : No

Text Areas : PlainText

Possible Answers :

D,E

Question Number : 106 Question Id : 640653820766 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Short Answer Question

List the leaf nodes pruned by Alpha-Beta.

Enter a comma separated list of node labels in alphabetical order.

NO SPACES, TABS, DOTS, BRACKETS OR EXTRANEOUS CHARACTERS.

Answer format: X,Y,Z

Response Type : Alphanumeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Answers Case Sensitive : No

Text Areas : PlainText

Possible Answers :

C,F,G,I,J

Question Number : 107 Question Id : 640653820767 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Short Answer Question

List the leaf nodes solved (assigned SOLVED status) by SSS*.

Enter a comma separated list of node labels in alphabetical order.

NO SPACES, TABS, DOTS, BRACKETS OR EXTRANEOUS CHARACTERS.

Answer format: X,Y,Z

Response Type : Alphanumeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Set

Answers Case Sensitive : No

Text Areas : PlainText

Possible Answers :

A,D,E,H

A,D,H,E

Sub-Section Number :	5
Sub-Section Id :	640653120739
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Id : 640653820768 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (108 to 110)

Question Label : Comprehension

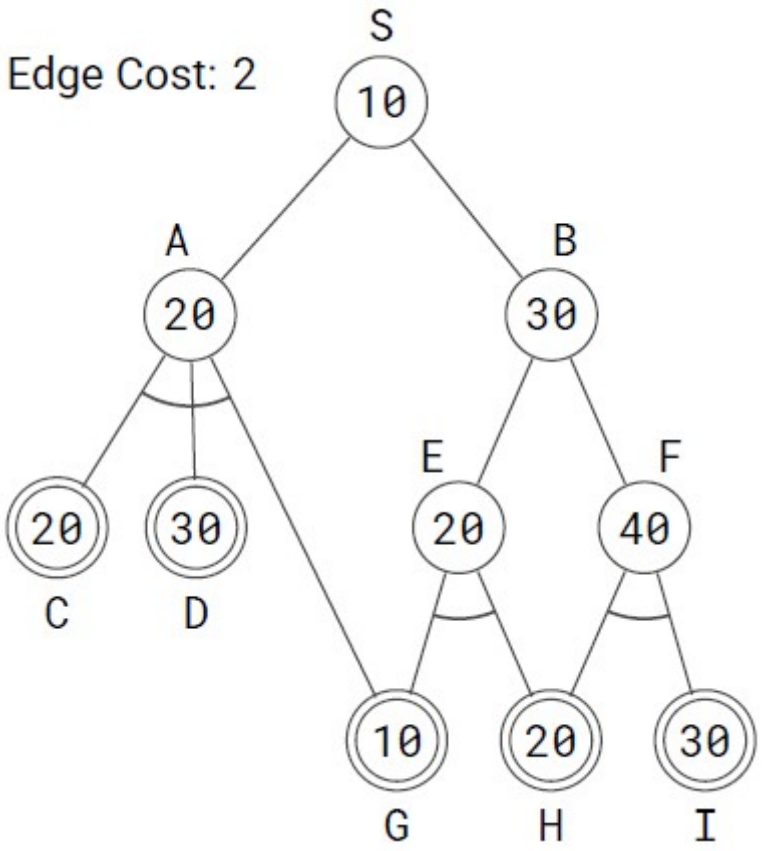
PROBLEM DECOMPOSITION

The figure shows an AND-OR graph that depicts how a problem S can be decomposed into one or more smaller problems. Nodes are uniquely identified by labels (S, A, B, ...). The number in each node is the heuristic estimate of the cost of solving that node.

Nodes shown in double lines are primitive nodes and their values are actual costs. Observe that a primitive node is added to the graph by its parent when the parent is expanded, and the primitive node is labeled as SOLVED and it will not be expanded subsequently.

The cost of each edge is 2 units.

Tie-breaker 1: If several nodes have the same cost then break the tie using node labels.
Tie-breaker 2: For AND nodes, select the unsolved branch with the highest cost.



Use AO* algorithm to solve S, then answer the sub-questions.

Sub questions

Question Number : 108 Question Id : 640653820769 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Short Answer Question

List the first three nodes (including S) expanded by AO* algorithm. List the nodes in the order they are expanded. Observe that primitive nodes are not expanded.

Enter a comma separated list of node labels.

NO SPACES, TABS, DOTS, BRACKETS OR EXTRANEOUS CHARACTERS.

Answer format: X,Y,Z

Response Type : Alphanumeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Set

Answers Case Sensitive : No

Text Areas : PlainText

Possible Answers :

S,A,B

A,B,E

Question Number : 109 Question Id : 640653820770 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Short Answer Question

Determine the value of the start node S after each node is expanded. What are the values of S after the 1st, 2nd and 3rd nodes are expanded, respectively? Enter the 3 values in the textbox.

Enter a comma separated list of numbers.

NO SPACES, TABS, DOTS, BRACKETS OR EXTRANEOUS CHARACTERS.

Answer format: 12,42,17

Response Type : Alphanumeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Set

Answers Case Sensitive : No

Text Areas : PlainText

Possible Answers :

22,32,24

32,24,38

Question Number : 110 Question Id : 640653820771 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Short Answer Question

What is the final value of the start node S?

Enter a number.

NO SPACES, TABS, DOTS, BRACKETS OR EXTRANEOUS CHARACTERS.

Answer format: 42

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

38

Sub-Section Number :	6
Sub-Section Id :	640653120740
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Id : 640653820772 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (111 to 113)

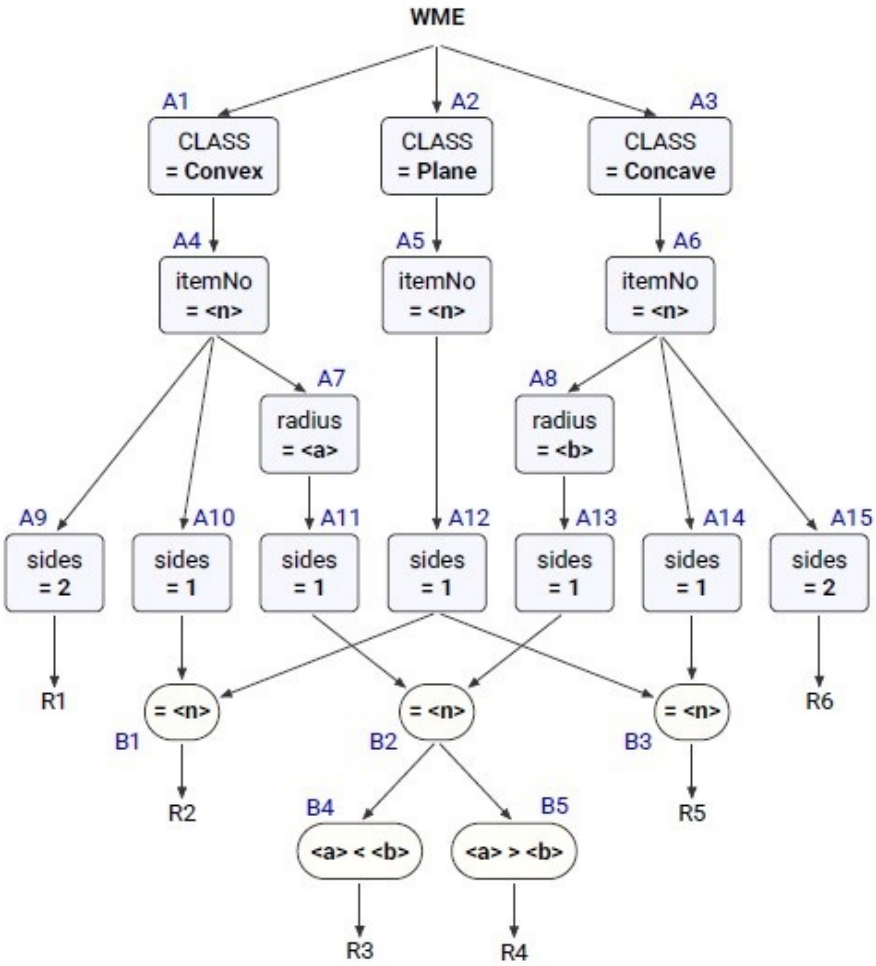
Question Label : Comprehension

RULE BASED EXPERT SYSTEMS

A Rete Net for classifying lenses based on surface properties (convex, concave, planar, radius of curvature, and number of sides) is shown in the figure. Each lens is uniquely identified by “itemNo” attribute, the remaining classes and attributes are self explanatory.

A part of the Rete Net that classifies mushrooms (as edible or poisonous) is shown in the figure. The labels A1, A2, ..., A15, ..., B1, B2, ..., B5, R1, ..., R6 uniquely identify the nodes in the network. When required, use the above label ordering to **break ties** and to enter short answers.

Note: beta nodes B4 and B5 compare the radius of curvature of two surfaces.



Run the Rete algorithm for the Working Memory shown below, the WMEs are in timestamp order. Assume that WMEs reside at appropriate Alpha nodes, and the Beta nodes point to WMEs residing in Alpha nodes.

```
101.  (Concave ^itemNo K3 ^radius 70 ^sides 1)
102.  (Concave ^itemNo K7 ^radius 10 ^sides 3)
103.  (Convex  ^itemNo K2 ^radius 60 ^sides 1)
104.  (Convex  ^itemNo K3 ^radius 50 ^sides 1)
105.  (Convex  ^itemNo K4 ^radius 20 ^sides 4)
106.  (Plane   ^itemNo K2 ^sides 1)
107.  (Concave ^itemNo K1 ^radius 80 ^sides 2)
```

For each WME identify its location (node label) in the Rete Net, and prepare the conflict set for the first cycle, then answer the sub-questions.

Sub questions

Question Number : 111 Question Id : 640653820773 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Which of the following rule-data tuples are in the conflict-set?

Options :

6406532754938. ✖ R1,105

6406532754939. ✔ R2,103,106

6406532754940. ✖ R4,102,103

6406532754941. ✖ R5,102

Question Number : 112 Question Id : 640653820774 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

If the Inference Engine uses **Specificity** as the conflict resolution strategy then which of the following rule-data tuples will qualify?

Options :

6406532754942. ✖ R1,105

6406532754943. ✔ R3,101,104

6406532754944. ✖ R4,102,103

6406532754945. ✖ R5,102

Question Number : 113 Question Id : 640653820775 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

If the Inference Engine uses **Recency** as the conflict resolution strategy then which of the following rule-data tuples will qualify?.

Options :

6406532754946. ✖ R2,103,107

6406532754947. ✖ R3,101,104

6406532754948. ✖ R4,102,103

6406532754949. ✔ R6,107

Sub-Section Number :	7
Sub-Section Id :	640653120741
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Id : 640653820776 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (114 to 117)

Question Label : Comprehension

AUTOMATED PLANNING

The domain description of a Blocks World with a single one-armed robot is given below. This is the same domain used in the assignments.

PREDICATES

armEmpty	The arm is not holding any block, it is empty.
holding(X)	The arm is holding X.
onTable(X)	X is on the table.
clear(X)	X has nothing above it, it is clear.
on(X,Y)	X is directly placed on Y.

OPERATORS

Pickup(X): pick up X from the table.

Preconditions: { armEmpty, clear(X), onTable(X) }
Add Effects : { holding(X) }
Del Effects : { armEmpty, onTable(X) }

Putdown(X): place X on the table.

Preconditions: { holding(X) }
Add Effects : { armEmpty, onTable(X) }
Del Effects : { holding(X) }

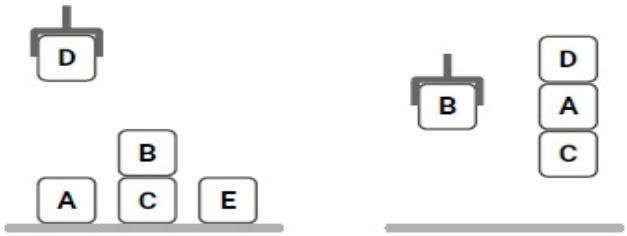
Unstack(X,Y): pick up X that is directly sitting on Y.

Preconditions: { armEmpty, clear(X), on(X,Y) }
Add Effects : { clear(Y), holding(X) }
Del Effects : { armempty, on(X,Y) }

Stack(X,Y): place X directly on top of Y.

Preconditions: { holding(X), clear(Y) }
Add Effects : { armEmpty, on(X,Y) }
Del Effects : { holding(X), clear(Y) }

Consider the planning problem with the following start state and goal description.



Start State

{ holding(D), clear(D), clear(A), clear(B), clear(E), on(B,C), onTable(A), onTable(C), onTable(E) }

Goal Description

{ holding(B), on(D,A), on(A,C) }

Based on the above data, answer the given subquestions.

Sub questions

Question Number : 114 Question Id : 640653820777 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Max. Selectable Options : 0

Question Label : Multiple Select Question

Which of the following are **applicable** actions in the start state?

Options :

6406532754950. ✔ Putdown(D)

6406532754951. ✖ Stack(D,C)

6406532754952. ✖ Pickup(B)

6406532754953. ✔ Stack(D,A)

6406532754954. ✖ Stack(A,C)

Question Number : 115 Question Id : 640653820778 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Max. Selectable Options : 0

Question Label : Multiple Select Question

Which of the following are **relevant** actions in the goal state?

Options :

6406532754955. ✔ Pickup(B)

6406532754956. ✖ Putdown(D)

6406532754957. ✔ Unstack(B,E)

6406532754958. ✖ Stack(D,C)

6406532754959. ✔ Stack(D,A)

Question Number : 116 Question Id : 640653820779 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Max. Selectable Options : 0

Question Label : Multiple Select Question

In the planning graph, which of the following are mutex action pairs in Layer 1?

Options :

6406532754960. ✖ Unstack(B,C), Putdown(D)

6406532754961. ✔ Stack(D,A), Putdown(D)

6406532754962. ✖ Stack(D,A), NOP-ACTION for armEmpty

6406532754963. ✔ Stack(D,A), Stack(D,E)

6406532754964. ✖ Pickup(A), Putdown(D)

Question Number : 117 Question Id : 640653820780 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Max. Selectable Options : 0

Question Label : Multiple Select Question

In the planning graph, which of the following are mutex proposition pairs in Layer 1?

Options :

6406532754965. ✖ on(D,A), armEmpty

6406532754966. ✔ on(D,A), onTable(D)

6406532754967. ✔ on(D,A), on(D,B)

6406532754968. ✖ holding(D), clear(A)

6406532754969. ✔ on(D,A), clear(A)

Sub-Section Number :	8
Sub-Section Id :	640653120742
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Id : 640653820781 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

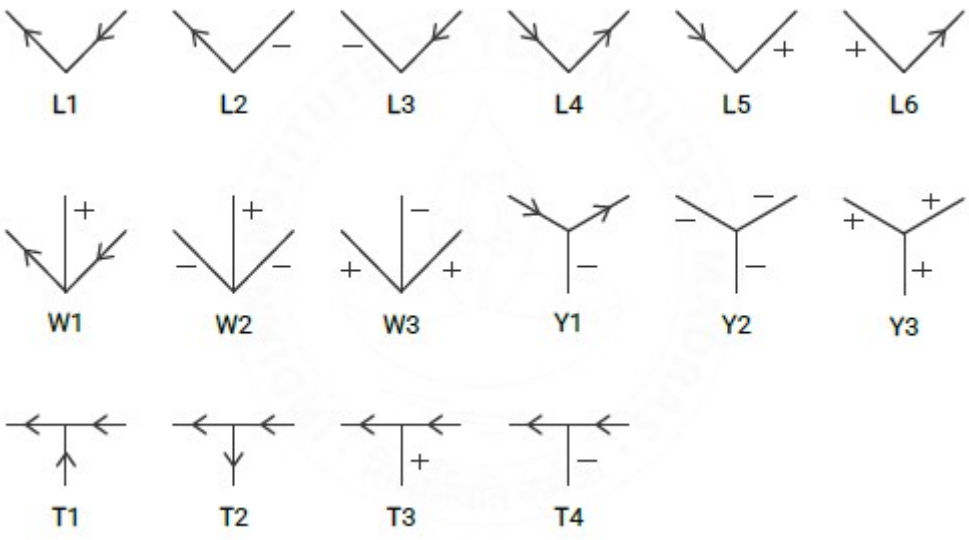
Question Numbers : (118 to 119)

Question Label : Comprehension

CONSTRAINT SATISFACTION

The set of junctions (L, W, Y and T type junctions) that occur in a 2D line drawing of trihedral objects is provided below. The in-plane clockwise/counterclockwise rotations of these junctions are valid as well. These junctions provide constraints on the possible edge assignments (convex, concave, arrow) for the edges/lines in 2D line drawings of trihedral objects.

The junctions carry unique labels: L1, L2, L3, L4, L5, L6, T1, T2, T3, T4, W1, W2, W3, Y1, Y2, Y3. When required, use the labels in short answers.



Note: A 2D line drawing of trihedral objects is considered to be consistent if all the edges and junctions can be assigned labels that are consistent with each other, otherwise the drawing is considered to be inconsistent and all labels are reset to NIL.

Apply a suitable algorithm to assign consistent labels to edges/junctions in the 2D line drawings in the sub-questions. Choose a suitable edge and junction order for solving the problems.

Based on the above data, answer the given subquestions.

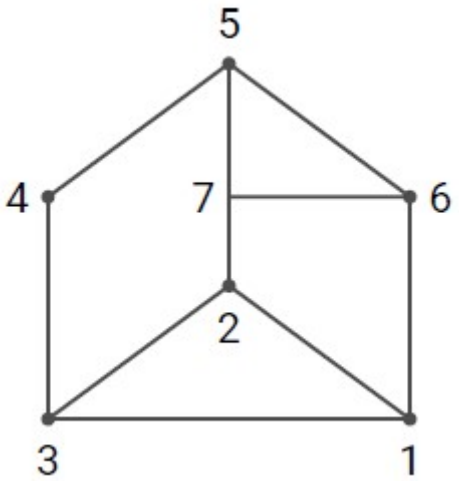
Sub questions

Question Number : 118 Question Id : 640653820782 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Short Answer Question

Assign consistent labels to all the edges and junctions in the 2D line drawing shown below. Enter the labels of the junctions 1, 2, 3, 4 in the text box, in that order. Otherwise enter NIL if the drawing has no consistent label assignment.



Enter a comma separated list of junction labels, or enter NIL.

NO SPACES, TABS, DOTS, BRACKETS OR EXTRANEOUS CHARACTERS.

Answer format: Y9,T9,W9,L9

Response Type : Alphanumeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Answers Case Sensitive : No

Text Areas : PlainText

Possible Answers :

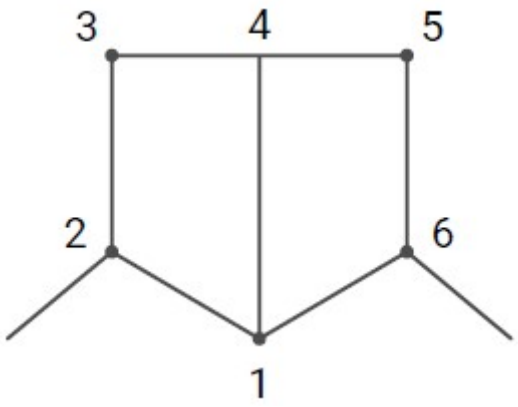
NIL

Question Number : 119 Question Id : 640653820783 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Short Answer Question

Assign consistent labels to all the edges and junctions in the 2D line drawing shown below. Enter the labels of the junctions 1, 2, 3, 4 in the text box, in that order. Otherwise enter NIL if the drawing has no consistent label assignment.



Enter a comma separated list of junction labels, or enter NIL.

NO SPACES, TABS, DOTS, BRACKETS OR EXTRANEOUS CHARACTERS.

Answer format: Y9,T9,W9,L9

Response Type : Alphanumeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Answers Case Sensitive : No

Text Areas : PlainText

Possible Answers :

W3,Y3,L5,T4