## SNAKE VARIATIONS CONTEST - 2015



## INSTRUCTIONS BOOKLET

$7^{\text {th }}-9^{\text {th }}$ November, 2015

## Author: Ashish Kumar

Important Links
Submission Page : http://logicmastersindia.com/2015/SVC/
Discussion Thread : http://logicmastersindia.com/t/?tid=1137
F. A. Q. : http://logicmastersindia.com/t/?tid=381

Registration, if required : http://logicmastersindia.com/register.asp

Serkan Yurekli was the author of two Snake Variations Contests in 2010 and 2011.

2010: http://www.logic-masters.de/Wettbewerbe/wettbewerb.php?id=15

## ABOUT THIS TEST

This test contests few classic snake puzzles and selected variations on snake puzzles.

## POINTS TABLE AND SCORING

Points typically indicate difficulty of the Puzzles and time required to solve them. You will get full points if you enter the correct answer key. While the organizers have made best efforts to match them, your personal experience and preference may differ.

This test uses instant grading where a solver can submit any individual Puzzle and receive confirmation that the solution is correct or not. Each incorrect submission reduces the puzzle's potential score. The first, second, third, and fourth incorrect submission reduces the potential score to $90 \%, 70 \%, 40 \%$, and $0 \%$ respectively.

| $\#$ | Puzzle Name | Points |
| ---: | :--- | ---: |
| 1 | Classic Snake | 9 |
| 2 | Classic Snake | 31 |
| 3 | Classic Snake | 53 |
| 4 | Classic Snake | 24 |
| 5 | First Seen Snake | 11 |
| 6 | First Seen Snake | 14 |
| 7 | Loop Snake | 15 |
| 8 | Loop Snake | 70 |
| 9 | Little Killer Snake | 14 |
| 10 | Little Killer Snake | 56 |
| 11 | Toroidal Snake | 36 |
| 12 | Toroidal Snake | 56 |
| 13 | Regional Snake | 18 |
| 14 | Regional Snake | 52 |
| 15 | Coded Snake | 25 |
| 16 | Coded Snake | 47 |
| 17 | Linked Snake | 69 |
|  | TOTAL | 600 |

## HOW TO PARTICIPATE?

- Understand the rules of different puzzles that will appear in this episode. This Instruction Booklet has rules for each puzzle.
- Download the password protected Puzzle booklet (will be uploaded before the test starts). The Puzzle booklet contains the actual Puzzles to be solved. It is password protected, so you won't be able to open it.
- Any time after November 07, 2015 (but before November 09, 2015), login at the submission page using your LMI userid and password.
- Please check the submission page for exact timing.
- Click on "Start". At this time, password for pdf will be shown and timer will start.
- The puzzle booklet should be downloaded, printed and solved on paper.
- There will not be any interface / applet to solve the puzzles on web browser.
- Most of the puzzles are designed to be solved faster on paper.
- We advise you to have a printer accessible with enough paper.
- Outside solving help of any kind is not permitted. This includes but is not limited to: assistance of any kind from any other person; prepared notes, books, calculators, computers, or tools other than items explicitly permitted.
- You are allowed to use writing implements, eraser, blank paper (including commercial graph paper), ruler, scissors, and tape.

If you are participating at LMI for first time, you must check the F.A.Q. at http://logicmastersindia.com/t/?tid=381.

## ABOUT ANSWER KEYS AND SUBMISSION

- Each puzzle has some rows and/or columns marked as answer keys.
- After solving the puzzle, you need to submit the length of the largest snake segment in the marked rows/columns.
- You may submit the answer keys anytime during the test duration. You may consider submitting a puzzle as soon as you solve it.
- Answer keys are always to be entered from left to right or top to bottom
- Don't enter any separator unless specified in the answer key
- If multiple rows are marked, enter from top to bottom for marked rows
- If multiple columns are marked, enter from left to right for marked columns
- If horizontal and vertical keys are needed, first enter the horizontal and then the vertical
- Characters other than numbers and comma will be removed while checking the answer


## BONUS AND RANKING

If you submitted all Puzzles correctly, you can have bonus points 10 points per minute saved, computed up to seconds.

Ranking will be based on following rules in order:

1. Most total points
2. Earliest final submission time, up to seconds (ignoring incorrect submissions)

## ABOUT THE PUZZLE BOOKLET

The password protected Puzzle booklet will have 9 pages. If you are planning to solve on paper, we advise you to have a printer accessible with enough paper. There will be no cover page in the Puzzle Booklet.

## DURATION

The contest will of 60 minutes duration. You can start anytime during the contest window. The timer will start once you click on 'Start' button.


## 7-8 LOOP SNAKE

Locate a snake of unknown length in the grid, whose head and tail are given. The snake is of one cell width and does not touch itself, even diagonally. Numbers outside the grid indicate the number of snake cells in that row/column. All the non-snake cells should form one unique closed loop without intersection. The snake or the loop cannot pass through given black cells.


## 9-10 LITTLE KILLER

Locate a snake of unknown length in the grid, whose head and tail are given. The snake is of one cell width and does not touch itself, even diagonally. All numbers outside indicate the number of snake cells in the direction marked. The snake cannot pass through given black cells.


## 11-12 TOROIDAL SNAKE

Locate a snake of unknown length in the grid, whose head and tail are given. The snake is of one cell width and does not touch itself, even diagonally, or toroidally. Numbers outside the grid indicate the number of snake cells in that row/column. The snake can wrap around the grid too. The snake cannot pass through given black cells.


## 13-14 REGIONAL SNAKE

Locate a snake of unknown length in the grid, whose head and tail are given. The snake is of one cell width and does not touch itself, even diagonally. Numbers outside the grid indicate the number of snake cells in that row/column. All the regions must contain 5 snake cells in both the grids. The snake cannot pass through given black cells.


## 15-16 CODED SNAKE

Locate a snake of unknown length in the grid, whose head and tail are given. The snake is of one cell width and does not touch itself, even diagonally. All the alphabets indicate different numbers, and indicate the number of snake cells in the row/column. The snake cannot pass through given black cells. All numbers from 1 to 8 are used in this example.

The range of numbers will be provided for each puzzle.

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## 17 LINKED SNAKE

Draw a one cell width snake going through the four grids. The snake cannot touch itself, even at a point. The head and tail of the whole grid will be given. Black cells are non-snake cells. The grids will be as shown below. The snake can enter and exit each grid multiple times.


The following rules apply in the different grids. All rules apply ONLY to the grid mentioned.

1. Horse Snake -A clue in a cell corresponds to the number of snake cells (head and tail included) which can be reached in a knight step from this cell, within Grid 1. There cannot be any snake segment on a cell containing a clue.
2. Slitherlink snake - The snake cannot go through the numbered cells. The number in a cell indicates the amount of cells occupied by the snake in the 4 orthogonal cells within the Grid 2.
3. Tapa Snake - Clues inside the grid shows regular tapa clues, indicating the number of cells occupied by the snake within Grid 3.
4. Masyu snake-Clues inside the grid are regular Masyu rules. All Masyu rules must be satisfied within Grid 4.

SOLUTIONS



