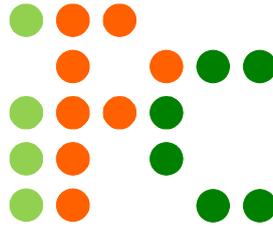


# puzzle रामायण

and



Episode – 5  
11<sup>th</sup> – 14<sup>th</sup> May 2018

Casual & Word  
by  
Rakesh Rai

Puzzle Ramayan rounds will also serve as qualifiers for Indian Puzzle Championship for year 2018. Please check <http://logicmastersindia.com/PR/2018pr.asp> for details.

## Important Links

Submission Page : <http://logicmastersindia.com/PR/201805/>

Discussion Thread : <http://logicmastersindia.com/t/?tid=1847>

F. A. Q. : <http://logicmastersindia.com/t/?tid=381>

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

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## About this Episode

This episode has 22 Puzzles from the following puzzle types:

- 1\* Shortest Distances
- 2\* Count Triangles
- 1\* Letter Weights
- 2\* Knight Paths
- 2\* Arithmetic Square
- 2\* Curve Data
- 1\* Twin Coordinates
- 1\* Scrabble
- 2\* Letter Scrabble
- 3\* Regionless Meandering Words
- 3\* Double Letter Scrabble
- 1\* Missing Letters
- 1\* Word Search

## 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 on or after 11<sup>th</sup> May (but on or before 14<sup>th</sup> May), 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 answer keys, as described in the instructions.
  - After solving the puzzle, you need to submit the puzzle using the answer keys.
  - 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 one row and one column is marked, enter the row first and then the column
  - 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
-

- Uppercase or lower case of answer key does not matter
- Characters other than alphabets, numbers and comma will be removed while checking the answer

### 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 submissions reduce the potential score to 90%, 70%, 40%, and 0% respectively.

<b>Shortest Distances</b>	<b>10</b>
<b>Count Triangles</b>	<b>1, 2</b>
<b>Letter Weights</b>	<b>6</b>
<b>Knight Paths</b>	<b>5, 4</b>
<b>Arithmetic Square</b>	<b>5, 5</b>
<b>Curve Data</b>	<b>1, 3</b>
<b>Twin Coordinates</b>	<b>2</b>
<b>Scrabble</b>	<b>12</b>
<b>Letter Scrabble</b>	<b>5, 6</b>
<b>Regionless Meandering Words</b>	<b>2, 2, 2</b>
<b>Double Letter Scrabble</b>	<b>5, 3, 14</b>
<b>Missing Letters</b>	<b>3</b>
<b>Word Search</b>	<b>2</b>

### Bonus and Ranking

If you submitted all Puzzles correctly, you can have bonus points 1 point 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

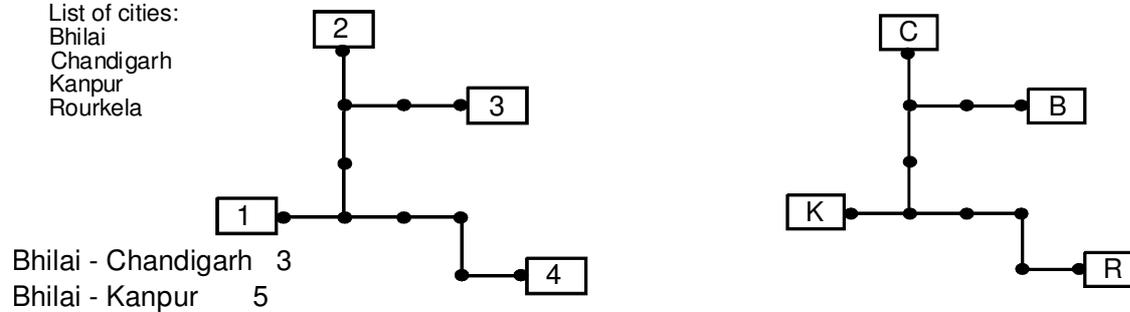
The password protected Puzzle booklet will have 11 pages. We expect you to print and solve on paper, so you would need to have a printer accessible with enough paper.

# 1 Shortest Distances

10 points

Some dots on the map are labeled with boxes. Put the list of given city names onto the boxes, a single different name on each box, such that the provided distances between names are accurate. Distances are measured by the shortest path that follows the black lines between dots; a black line between dots is one unit. Ignore the numbers on the boxes while solving.

- List of cities:  
 Bhilai  
 Chandigarh  
 Kanpur  
 Rourkela



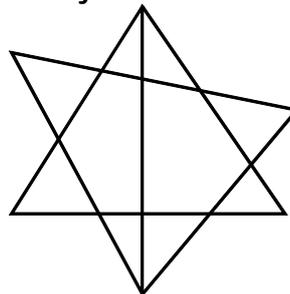
Answer key: For each numbered box from 1 to 10 (1 to 4 in the example), enter the first letter of the city name.

Example: KCBR

# 2-3 Count Triangles

1+ 2 points

Determine the number of triangles of any size in the diagram.



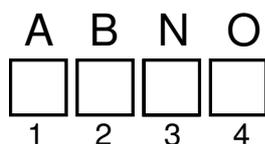
Answer Key: Enter the number of triangles. There is no partial marking for incorrect answers.

Example: 18

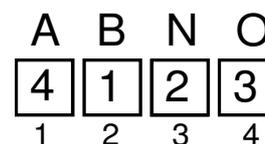
# 4 Letter Weights

6 points

Write a number under each letter (in each cell) so that the numbers corresponding to the letters in each given word have the given sum. Different letters must have different numbers. The list of allowed numbers is given in a row underneath the cells.



AN = 6  
 BAN = 7  
 BOA = 8



AN = 6  
 BAN = 7  
 BOA = 8

Answer Key: Enter the contents of the cells, from left to right.

Example: 4123

## 5-6 Count Knight Paths

5 + 4 points

In how many ways can the word "PUZZLE" be found in the grid as a knight path? A knight path is one where consecutive letters are a knight-move apart. (A knight-move is two spaces in one orthogonal direction, followed by one space in a perpendicular direction to the first.)

P	Z	Z	E
E	L	U	Z
Z	U	L	Z

**Answer Key:** Enter the number of paths. There is no partial marking for incorrect answers.

Example: 5

## 7-8 Arithmetic Square

5 + 5 points

Place each digit from 1 to 9 into the cells (a different single digit in each cell) so that the indicated equations/relations are correct. Evaluate from left-to-right and top-to-bottom (ignore the usual precedence of the operators). It is possible for expressions and partial expressions to be negative or non-integral.

$$\begin{array}{r} \square \times \square \times \square = 504 \\ \times \quad + \quad + \\ \square / \square \times \square = 3 \\ - \quad / \quad + \\ \square + \square - \square = 2 \\ = \quad = \quad = \\ 4 \quad 3 \quad 20 \end{array}$$

$$\begin{array}{r} \boxed{8} \times \boxed{7} \times \boxed{9} = 504 \\ \times \quad + \quad + \\ \boxed{1} / \boxed{2} \times \boxed{6} = 3 \\ - \quad / \quad + \\ \boxed{4} + \boxed{3} - \boxed{5} = 2 \\ = \quad = \quad = \\ 4 \quad 3 \quad 20 \end{array}$$

**Answer Key:** Enter the contents of the cells row by row from top to bottom.

Example: 879126435

## 9-10 Curve Data

1 + 3 points

Make some figures by drawing lines through the centre of cells so that each figure goes through just one clue. All cells are visited by lines. A clue shows how the line passing through it turns and connects with itself, without any rotation or reflection. However, the clue does not specify length of each straight segment of the line in any way - the lengths of straight segments may vary, but must not be 0.



**Answer Key:** For each marked row, enter the lengths of horizontal segments from left to right. For each marked column, enter the lengths of vertical segments from top to bottom. Enter 0 if there are no segments.

Example: 11,2

### 11 Twin Coordinates

2 points

Find 3 pairs of cells that are identical to each other in the diagram below. Cells cannot be rotated or reflected. Ignore any minor pixelations.

	A	B	C	D
1	△	▧	□	○
2	▨	▷	∪	▽
3	○	▮	△	▬
4	□	○	0	◁

	A	B	C	D
1	△ <sup>✓</sup>	▧	□ <sup>✓</sup>	○ <sup>✓</sup>
2	▨	▷	∪	▽
3	○	▮	△ <sup>✓</sup>	▬
4	□ <sup>✓</sup>	○ <sup>✓</sup>	0	◁

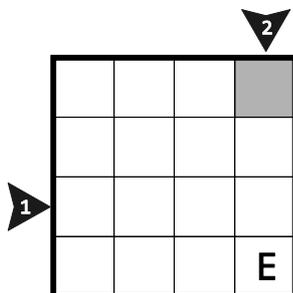
Answer Key: Enter the coordinates of the six cells from top to bottom. For cells in the same row, enter from left to right.

Example: A1C1D1C3A4B4

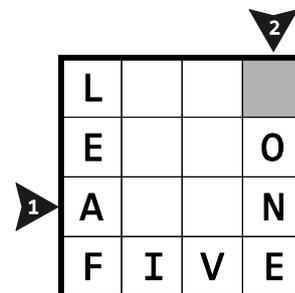
### 12 Scrabble

12 points

Place all the listed words exactly once in the grid going across (left to right) or down (top to bottom). Each word intersects with at least one other word and all words are interconnected. No words of two or more letters can appear anywhere in the grid, except the ones listed. There cannot be any letters in the shaded cells. Some letters are already given.



ONE  
FIVE  
LEAF



Answer Key: For each marked row (or column), enter its contents from left to right (or top to bottom), ignoring any blank cells. If all cells in the row/column are blank, enter a single letter 'X'.

Example: AN,ONE

## 13-14 Letter Scrabble

5 + 6 points

Place all the listed words exactly once in the grid going across (left to right) or down (top to bottom). Each word intersects with at least one other word and all words are interconnected. No words of two or more letters can appear anywhere in the grid, except the ones listed. All instances of a letter are given.

M			M
			M
M		M	

MUM  
RAM  
DORM  
MAIM  
MEME  
MADAM

M	A	I	M
A			U
D	O	R	M
A		A	
M	E	M	E

**Answer Key:** For each marked row (or column), enter its contents from left to right (or top to bottom), ignoring any blank cells. If all cells in the row/column are blank, enter a single letter 'X'.

Example: AA,IRAM

## 15-17 Regionless Meandering Words

2 + 2 + 2 points

Place the given list of words in the grid so that there is one letter in each empty cell and cells that contain the same letter do not touch each other, even diagonally. Each word must be placed such that consecutive letters in the word are touching each other by a side. The first letter of each word is already given. Each cell must be used by exactly one word, and all cells must be used.

	T		
		H	
H		T	

HAIL  
HALE  
TAIL  
TALE

I	L	I	L
A	T	A	E
E	L	H	L
H	A	T	A

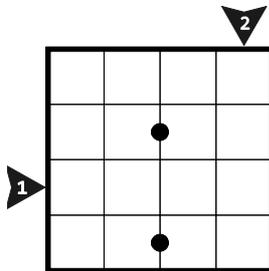
**Answer Key:** For each marked row (or column), enter the letters from left to right (or top to bottom).

Example: ILIL,LELA

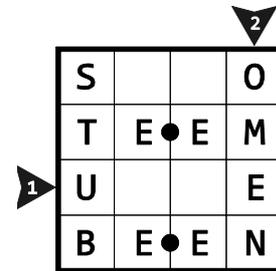
### 18-20 Double Letter Scrabble

5 + 3 + 14 points

Place all the listed words in the grid going across or down, i.e. left to right and top to bottom. Each word intersects with at least one other word and all words are interconnected. No words of two or more letters can appear anywhere in the grid, except the ones listed. All instances of a double letter (same letter appearing twice consecutively) are marked in the grid with a black circle.



BEEN  
OMEN  
TEEM  
STUB



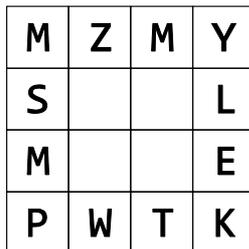
**Answer Key:** For each marked row (or column), enter its contents from left to right (or top to bottom), ignoring any blank cells. If all cells in the row/column are blank, enter a single letter 'X'.

Example: UE,OMEN

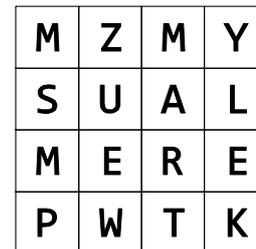
### 21 Missing Letters

3 points

Locate all the listed words in the grid. Words always appear in a line in one of the eight standard directions. Some letters in the middle of the grid are missing and you must rediscover what they are while solving.



MERE  
MURK  
MART



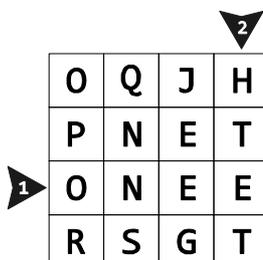
**Answer Key:** Enter the twelve missing letters (four in the example) row-by-row from top to bottom. Within a row, enter the digits from left to right.

Example: UAER

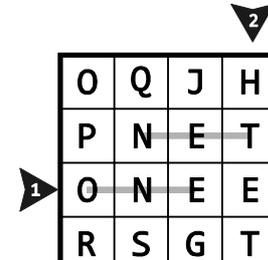
### 22 Word Search

2 points

Locate all the listed words in the grid. Words always appear in a line in one of the eight standard directions. A cell cannot be used by multiple words.



ONE  
TEN



**Answer Key:** For each marked row (or column), enter the used letters from left to right (or top to bottom), ignoring any blank cells. If all cells in the row/column are unused, enter a single letter 'X'.

Example: ONE, T