## Zonal Informatics Olympiad, 2014

## Solutions

Question 1	Minimum number of operations required to print all words					
	(a)	88	(b)	120	(c)	115
Question 2	Final city on the salesman's tour from each starting point					
	(a) $2 \sim 7$	$6 \rightsquigarrow 1$	(b) $0 \sim 1$	<b>1</b> 10 <b>∼→ 1</b>	(c) $4 \sim$	<b>4</b> 7 → <b>11</b>
Question 3	Number of different possible codes, modulo 100 (last 2 digits only)					
	(a)	36	(b)	84	(c)	08 or 8
Question 4	Number of distinct subsequences of length $N$ of the given word					
	(a)	34	(b)	281	(c)	212

## Marking

The question paper carries 80 marks, broken up into four questions of 20 marks each. Each question has three parts. If you solve all three parts correctly, you get 20 marks for that question. Otherwise, you get 5 marks for each part that you solve correctly.

## Qualifying cutoff

• Std 12: 40

• Std 11: 30

• Std 10 or below: 25