

Zonal Informatics Olympiad, 2018

Solutions

1. Maximum *Score*

- (a) 74
- (b) 67
- (c) 65

2. Minimum number of *Impure* boxes

- (a) 3
- (b) 2
- (c) 4

3. Number ways of partitioning into *Heavy* sublists

- (a) 20
- (b) 16
- (c) 96

4. Number ways of partitioning $\{1, 2, \dots, N\}$ into tuples of size at most K

- (a) 49
- (b) 261
- (c) 1531

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: 50
- Std 11: 40
- Std 10: 40
- Std 9: 35
- Std 8 or below: 30