50 Must Solve Analytical Reasoning Puzzles

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
50 Must Solve Analytical Reasoning Puzzles

Puzzle 1

1-4

Kumar has a peach orchard in Ooty. On a particular day, his associate Suresh plucked 103 distinct peaches (each peach of a distinct size). He distributed these 103 peaches in four distinct boxes – A, B, C and D at 6 AM.

Later at multiple times during the day (8 am, 10 am, 12 noon and 2 pm), Kumar tested some of the peaches that were present in some or all of the four boxes at those times. He performed one of the following three operations – I, II and III on the peaches he tested:

**Operation I**: If Kumar liked any peach in a box, he plucked a new peach of the same size and placed in one of the other three boxes.

**Operation II**: If Kumar did not like the box in which a particular peach was placed, he removed the peach from that box and placed it in another box.

**Operation III**: If Kumar did not like any peach, he discarded the peach from the box.

The following table provides information about the number of peaches in each of the boxes – A, B, C and D at different times during the entire day. Kumar was very lazy and hence performed minimum possible number of operations. An operation is said to have been performed, when any of I, II or III is performed.

<table>
<thead>
<tr>
<th>BOXES</th>
<th>6 AM</th>
<th>8 AM</th>
<th>10 AM</th>
<th>12 NOON</th>
<th>2 PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>23</td>
<td>25</td>
<td>29</td>
<td>26</td>
<td>28</td>
</tr>
<tr>
<td>B</td>
<td>27</td>
<td>31</td>
<td>31</td>
<td>32</td>
<td>29</td>
</tr>
<tr>
<td>C</td>
<td>15</td>
<td>27</td>
<td>40</td>
<td>39</td>
<td>32</td>
</tr>
<tr>
<td>D</td>
<td>38</td>
<td>30</td>
<td>25</td>
<td>24</td>
<td>45</td>
</tr>
</tbody>
</table>

1. Find the total number of operations performed by Kumar between 6:00 AM and 2:00 PM.
   A.62      B.67      C.63      D.65
2. How many times did Kumar perform operation III between 6:00 AM and 2:00 PM?
   A.6       B.4       C.5       D.3
3. At least how many times was operation II performed to remove a peach from box D and place it in box C between 6:00 AM and 2:00 PM?
   A.1       B.2       C.3       D. more than 3
4. How many times did Kumar perform operation II between 6:00 AM to 2:00 PM?
   A..24     B.25     C.23      D.22

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
Puzzle 2

5-8
1, 2, 3, 4, 5, 6, 7 and 8 are the eight professors teaching in different departments of a University. They are seated across a rectangular table on chairs, such that each longer side of the table has four chairs each. One professor belongs to the Department of Physics.

The following points are known:

i. The professor of Mathematics is seated opposite to the professor of Biology.
ii. 1 is seated opposite to the professor of Chemistry.
iii. The professor of History is seated second to the left of the professor of Economics on the same side of the table. The professor of Economics sits opposite to 4.
iv. Exactly one professor is seated between the professors of Biology and Literature on the same side of the table.
v. The professor of Computer Science is seated third to the right of 8 on the same side of the table. 8 is seated opposite to the professor of Literature.

5. If 7 is seated second to the right of 3, which of the following departments can 7 belong to?
   A. Biology  B. Economics  C. History  D. Chemistry

6. If 2 is the only professor who is seated between 6 and the professor of Physics, which department does 2 belong to?
   A. Mathematics  B. Computer Science  C. Biology  D. Cannot be determined

7. Additional information: 8 and the professor of History swap their seats.
   Which of the following statements cannot be correct?
   A. Professors of History and Physics are seated farthest apart from each other.
   B. Professors of History and Physics are seated next to each other.
   C. Professors of Chemistry and Economics are seated next to each other.
   D. Professors of Physics and Biology are seated next to each other.

8. Additional information: 8 and the professor of History swap their seats.
   Which of the following statements can be correct?
   A. The professor of Physics is seated between the professors of History and Mathematics on the same side of the table.
   B. The professor of Mathematics is seated between the professors of Computer Science and History on the same side of the table.
   C. The professor of Biology is seated between the professors of Literature and Economics on the same side of the table.
   D. The professor of Physics is seated between the professors of Computer Science and Economics on the same side of the table.
Puzzle 3

9-12

Cinemax is a very popular multiplex in the city of Mumbai. It has five screens – Screen 1, Screen 2, Screen 3, Screen 4 and Screen 5. Five different movies – Predestination (PN), Looper (LR), Interstellar (IR), Inception (IN) and Equalizer (ER) – were screened over five consecutive days on these screens. Each movie was shown on a different screen every day. Similarly, each screen showed a different movie every day.

The following points are known:

i. In all the screens, except 2, IR was screened before IN.

ii. LR was the third movie to be screened on screen 4, and it was screened after PN.

iii. PN was screened on two other screens prior to 3, and was screened on 1 immediately after it was screened on 3.

9. Which movie was screened on the first day at screen 2?
   A. ER    B. IN    C. PN    D. Cannot be determined

10. On which screen was IR screened on the fourth day?
    A. Screen 4    B. Screen 1    C. Screen 2    D. Cannot be determined

11. Which of the following is the correct order of screens (from first day to fifth day) on which Equalizer was screened?
    A. 4, 1, 2, 3, 5    B. 3, 5, 1, 2, 4    C. 5, 4, 2, 3, 1    D. Cannot be determined

12. On which screen was IN screened immediately on the next day after it was screened on screen 1?
    A. 4    B. 5    C. 2    D. Cannot be determined
Puzzle 4
13-16

O, P, Q, R, S, T, U, V, W, X, Y and Z are 12 persons, 3 each from four different families – the Ahuja’s, the Sharma’s, the Malhotra’s and the Mishra’s. Given below are five groups, each group consisting of four persons such that no group consists of two persons from the same family.

<table>
<thead>
<tr>
<th>Group A</th>
<th>O</th>
<th>Q</th>
<th>R</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group B</td>
<td>Q</td>
<td>W</td>
<td>Y</td>
<td>Z</td>
</tr>
<tr>
<td>Group C</td>
<td>R</td>
<td>T</td>
<td>V</td>
<td>X</td>
</tr>
<tr>
<td>Group D</td>
<td>O</td>
<td>U</td>
<td>V</td>
<td>Z</td>
</tr>
<tr>
<td>Group E</td>
<td>P</td>
<td>U</td>
<td>X</td>
<td>Y</td>
</tr>
</tbody>
</table>

Further it is given that:

I. R and Y are not from the same family.
II. T and Y are not from the same family.
III. O is from the Ahuja’s.
IV. Neither T nor Y are from the Sharma’s.

13. X is from the same family as:
   A. Q  B. W  C. Z  D. Cannot be determined

14. Who among the following is definitely from the Sharma’s?
   A. Z  B. P  C. Both Z and P  D. either Z or P

15. Which of the following statements is not correct?
   A. If Q is from the Mishra’s, then S is from the Malhotra’s.
   B. X is from the Ahuja’s and Z is from the Sharma’s.
   C. If U is from the Malhotra’s, then S is from the Mishra’s.
   D. None of these.

16. For how many persons, the exact families they belong to can be uniquely determined
   A. 10  B. 9  C. 8  D. 6
Puzzle 5

17-20
Five shuttlers – Axelson, Lee Chong, Chen, Dan and Kidambi – are standing in a queue, in that order, from first to last. These five shuttlers are the top five rankers not necessarily in that order, in each of three BWF competitions – A, B and C. No shutter got the same rank in any two competitions and no two shuttlers got the same rank in any competition. Further, for any shutter, none of his ranks is the same as his position in the queue.

Further, it is known that:

i. Axelson got the second rank in the competition A.
ii. Lee Chong got the third rank in competition B.
iii. Kidambi got the first rank in competition C.
iv. The sum of ranks obtained by Dan is 9.

v. The sum of the ranks obtained by Lee Chong is not more than that obtained by Chen.

17. The sum of ranks obtained by Kidambi is
A. 6  B. 7  C. 8  D. Cannot be determined

18. The rank of Kidambi in competition B is
A. 4  B. 2  C. 3  D. Cannot be determined

19. What is the absolute value of the difference between the ranks of Dan and Kidambi in Competition B?
A. 1  B. 2  C. 3  D. Cannot be determined

20. If the sum of ranks obtained by two cricketers is the same, then which of the following statements is definitely true?
A. Axelson got the fifth rank in competition C.
B. Dan got the fifth rank in competition A.
C. Both of the above
D. None of the above

Puzzle 6

21-24
E1, E2, E3, E4, E5, E6, E7 and E8 are eight persons working in the KSB bank. The manager of the bank came across some discrepancies in some banking transactions recently and suggested to form a committee of four persons in order to look into the matter. Any committee thus formed should have two males and two females. The chairman of the bank, nominated five directors – A, B, C, D and E to suggest their choice for the committee keeping in mind the guidelines set by the manager of the bank.

The following table provides information about the suggestions made by the five directors.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>E2</th>
<th>E3</th>
<th>E4</th>
<th>E5</th>
<th>E7</th>
<th>E8</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>E1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>E3</td>
<td>E5</td>
<td></td>
<td></td>
<td>E6</td>
<td>E7</td>
</tr>
</tbody>
</table>

Andheri|Borivali|Powai|Mira Road|Pune|Online 8999-11-8999
The number of married couples included in the committee suggested by the five directors A, B, C, D and E is 1, 1, 1, 1 and 0 respectively. It is also known that E2 and E3 are males.

21. If there are exactly two couples among the eight persons, then which of the following is not a couple?

A. E2 and E8  
B. E3 and E7  
C. E4 and E5  
D. Cannot be determined

22. If there are exactly three couples among the eight persons, then which of the following must be a couple?

A. E4 and E8  
B. E2 and E7  
C. E3 and E5  
D. Cannot be determined

23. If there are exactly three couples among the eight persons, then which of the following persons is definitely not married?

A. E8  
B. E5  
C. E3  
D. E1

24. Each of the following persons is of the same gender except

A. E5  
B. E6  
C. E7  
D. E8

Puzzle 7

25-28

Eight children have been asked to choose at least one of the cartoon shows between Beyblade and Pokemon. Each child is from one of following classes: Nursery, KG and UKG, and each of these three classes is represented at least once among the group. There is at least one child from each of these three classes. There is at least one girl among the eight children and all the girls are from class KG.

Further, it is known that:
1. At least two children chose Beyblade but not Pokemon.
2. At least two children chose Pokemon but not Beyblade.
3. At least one child has chosen both the given cartoon shows.
4. Among the eight children, only the children from UKG have chosen Pokemon.

25. Consider the following statements:
   I. All children from Nursery have chosen Beyblade.
   II. All children from KG have chosen Beyblade.
   III. All children from UKG have chosen Pokemon.

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
IV. No child from Nursery has chosen Pokemon.
How many of these statements must be true?

26. If four of the children are girls, then all of the following statements must be true except:
   A. Exactly one child is from Nursery.
   B. Exactly three of the children are from UKG.
   C. Exactly four children have chosen only Beyblade.
   D. None of the above

27. If the number of children from Nursery are more than that from UKG, then how many boys have
    chosen Beyblade?
   A. 4  B. 5  C. 6  D. Cannot be determined

28. Suppose one more child joins the group and the number of children from nursery is more than the
    number of children from UKG, which in turn is more than the number of children from KG. What
    could be the maximum possible number of girls in the group?(Assume that all other conditions given
    remain the same)

Puzzle 8

29-32
Charlotte Anne has 8 grandchildren, named Liam, Eleanor, Emily, Jenny, Axl, Jaden, Theodore and
Madison. She has 36 gold rings with her. On her 70th birthday, she gifted the rings among her
grandchildren such that the eldest grandchild got 8 rings, the second eldest grandchild got 7 rings and so
on and the youngest grandchild got 1 ring. After getting the rings, the 8 grandchildren played a game, in
which each of them got different rank. The winner in the game got 8 rings from the eldest grandchild,
the first runner up got 7 rings from the second eldest grandchild, and so on.

For every grandchild:

a. Gain in the game = The number of rings with him/her after the game is over – The number of rings
   gifted to him/her by grandmother (if the number of rings after the game is more than the number of
   rings gifted by the grandmother).

b. Loss in the game = The number of rings gifted to him/her by grandmother – The number of rings with
   him/her after the game is over (if the number of rings after the game is less than the number of rings
   gifted by the grandmother).

Following points are known:

1. Jaden is not the eldest one and he did not win the game.

2. The number of rings gifted to Emily by her grandmother was a composite number. The number of
   rings she had after the game was a prime number.
3. The grandmother gifted rings equal to the number of letters in the name of only one grandchild.

4. The number of rings gifted by the grandmother to Jenny was more than exactly 5 other grandchildren. She was the only one who did not have either gain or loss in the game.

5. Axl lost 4 rings in the game, which was more than the loss suffered by any other grandchild. Further, Axl did not get 7 rings from his grandmother.

6. Madison and Theodore had consecutive number of rings both before and after the game, such that Madison got fewer rings than Theodore both before and after the game.

7. Eleanor gained more rings in the game than any other grandchild.

8. Liam did not suffer a loss in the game.

9. Jaden did not get 5 rings from his grandmother.

29. Who is the youngest grandchild of Charlotte Anne?
   A. Eleanor  B. Madison  C. Either Eleanor or Madison  D. None of these

30. Who got 5 rings at the end of the game?
    A. Emily  B. Liam  C. Eleanor  D. Cannot be determined

31. If Emily loses one ring in the game, then how many grandchildren gained exactly one ring from the game?

32. How many coins does Jaden lose in the game?

Puzzle 9

33-36
There are five lifts $L_1$, $L_2$, $L_3$, $L_4$ and $L_5$ in a line in that order equidistant from each other. Paths originate from each of the five lifts that lead to five floors $F_1$, $F_2$, $F_3$, $F_4$ and $F_5$ (not in any particular order). The following information is known.

1. There are exactly two lifts such that the lift number of one opens to the floor number of the other and vice versa (for example, $L_m$ leads to $F_n$ and $L_n$ leads to $F_m$) and they are not next to each other.
2. Lifts $L_3$ and $L_5$ lead to floors that are adjacent to each other.
3. None of the lifts leads to a floor with the same number (for example, $L_1$ doesn’t lead to $F_1$).
4. The path originating from $L_4$ is shorter than any other path.
5. Length of the path joining lift $L_m$ and floor $F_n = |m - n|$

Andheri|Borivali|Powai|Mira Road|Pune|Online 8999-11-8999

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
6. Lifts and floors at the extreme ends are not connected to each other.
7. Path to F₃ do not originate from L₁.

33. The path originating from L₃ leads to:
   A. F₁  B. F₂  C. F₄  D. F₅

34. The second shortest path originates from:
   A. L₁  B. L₂  C. L₃  D. L₅

35. The paths to which of the following floors are equal in length?
   A. F₂ and F₄  B. F₃ and F₄  C. F₁ and F₄  D. F₁ and F₅

36. Which of the following options contains two valid paths that satisfy all the given conditions?
   A. L₁-F₄ and L₄-F₁  B. L₂-F₄ and L₄-F₂  C. L₁-F₅ and L₅-F₁  D. L₂-F₅ and L₅-F₂

Puzzle 10

37-40
In the annual sales meet of a multinational sneaker company, the sales heads of 9 states: Uttar Pradesh, Himachal Pradesh, Uttarakhand, Rajasthan, Maharashtra, Goa, Andhra Pradesh, Karnataka and Kerala were invited.
The states of Uttar Pradesh, Himachal Pradesh and Uttarakhand lie in the region north. The states of Rajasthan, Maharashtra and Goa lie in the region west, while the states of Andhra Pradesh, Karnataka and Kerala lie in the region south.
At the end of the sales meet, all the nine sales heads were asked to choose exactly one of the nine chairs – C1 to C9 on which they would like to sit for the group photograph. After each sales head chose his chair, it was decided to arrange the chairs in a row from left to right.
During the conference, all the sales heads of states lying under north had a verbal altercation and hence no two of the three must be seated together. The following table provides information about the three possible arrangements:

<table>
<thead>
<tr>
<th></th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
<th>C5</th>
<th>C6</th>
<th>C7</th>
<th>C8</th>
<th>C9</th>
</tr>
</thead>
<tbody>
<tr>
<td>C5</td>
<td>C3</td>
<td>C8</td>
<td>C1</td>
<td>C6</td>
<td>C2</td>
<td>C4</td>
<td>C7</td>
<td>C9</td>
<td></td>
</tr>
<tr>
<td>C4</td>
<td>C9</td>
<td>C2</td>
<td>C8</td>
<td>C5</td>
<td>C1</td>
<td>C7</td>
<td>C3</td>
<td>C6</td>
<td></td>
</tr>
</tbody>
</table>

37. Let ‘X’ be the number of distinct triplets of chairs chosen by the sales heads of the states lying under the region north. What is the value of ‘X’?
   A. 2  B. 3  C. 4  D. 5

38. Which of the following cannot be the chair chosen by a sales head of a state lying in the region north?
   A. C₄  B. C₇  C. C₉  D. None of these
39. If C5 was chosen by the sales head of Uttar Pradesh, then which of the following can be the chair chosen by the sales head of the state Himachal Pradesh?
   A. C2    B. C8    C. Either C2 or C    D. Neither C2 nor C8

40. Which of the following can be correct?
   A. If C6 was chosen by the sales head of Punjab, then C9 was chosen by the sales head of Delhi.
   B. If C9 was chosen by the sales head of Delhi, then C5 was chosen by the sales head of Rajasthan.
   C. If C5 was chosen by the sales head of Rajasthan, then C2 was chosen by the sales head of Punjab.
   D. None of the above.

Puzzle 11

41-44

A company XYZ has branches all over India. A survey was conducted in seven cities – New Delhi, Kolkata, Chennai, Mumbai, Bangalore, Hyderabad and Pune. The employees in these cities were asked to choose a VP who is most suitable and deserving to be the next President of XYZ. The choices were A, B, C and D. No person was allowed to make more than one choice. Each of P, Q, R and S was one of the candidates selected by employees of at least one city.

When the results of the survey were evaluated, it was observed that in each of the cities, the number of distinct choices made by the employees of that city was two or three. Also, in every city, one or the other of the four given persons was chosen by more than fifty percent of the employees of that city.

Further, following points are known:
1. In no two cities, the combination of choices made by the employees was the same.
2. The number of cities, where one or more of the persons chose C, A and B, is same and is more than or equal to 4. Also, each of these three persons was chosen by more than fifty percent of the employees from exactly two cities.
3. C was chosen by more than fifty percent employees in only those cities where the number of distinct choices made by the employees was 2.
4. A, who was not chosen by any one from Mumbai, and was chosen by more than fifty percent employees from Pune.
5. B, who was not chosen by any one from Pune, was chosen by more than fifty percent employees from Bangalore. Also, C was not chosen by any one from Bangalore.
6. The employees of Hyderabad selected B (chosen by more than fifty percent), A and C.
7. The number of cities where employees made 3 distinct choices was one more than the cities where employees made 2 distinct choices.

8. In no two cities of New Delhi, Kolkata and Mumbai, the person chosen by more than fifty percent of the employees was the same. The number of distinct choices made by the employees from cities of Kolkata and Chennai was 2 and that from Bangalore was 3.

9. S was not chosen by the employees from New Delhi.

41. Which of the following statements can be true?
   A. R was chosen by more than 50 percent of people from New Delhi.
   B. R was chosen by more than 50 percent of people from Kolkata.
   C. R was chosen by more than 50 percent of people from Mumbai.
   D. More than one of the above.

42. For how many cities, all the persons chosen by the employees of that city can be uniquely determined?

43. Which of the following persons was chosen by the employees from Chennai, but by no more than 50 percent of the employees?
   A. A
   B. B
   C. either A or B
   D. cannot be determined

44. In how many cities was D one of the chosen persons?

Puzzle 12

45-50
In the qualifiers for the 2022 FIFA World Cup, football teams from Group A countries Netherlands and Italy, Group B countries France and Kenya, and Group C countries Colombia and Spain were the only six participants.

The format of the Qualifiers is as follows –
- The top two teams (in terms of number of matches won) qualified for the world cup. In case of a tie for the top two teams, the two teams that qualify for the world cup was to be decided in a tie-breaker round.
- Two matches were played every day over six days (Monday to Saturday). One match each was played in the morning slot and in the evening slot every day.
- The teams playing the evening match did not play the next day.
- Each team played four matches, one match against every team except the team from the same continent.
- Every team played two morning and two evening matches.
- No team play two matches in a day.

The following information regarding the schedule for the tournament is known.

1. All teams except Italy played their morning matches on consecutive days.
2. Colombia won all their matches while Kenya lost all their matches.
3. Spain won their match on Friday evening.
4. Italy lost its match on Saturday morning.
5. Colombia defeated the teams from Europe on Tuesday evening and Thursday morning.
45. Which team played against Spain on Friday evening?
   A. Netherlands       B. France       C. Italy       D. cannot be determined

46. How many teams played their evening matches on alternate days?
   A. 1       B. 2       C. 3       D. 4

47. If Spain lost both their remaining matches, then which team qualified for the World Cup 2022, if it is known that tie-breaker was not required? (Here remaining matches means the matches whose outcomes are not known to us.)
   A. Netherlands       B. France       C. Italy       D. cannot be determined

48. If France lost both the remaining matches, then which team qualified for the World Cup 2022? (Here remaining matches means the matches whose outcomes are not known to us.).
   A. Netherlands       B. Spain       C. Italy       D. cannot be determined

49. Which team won the highest number of matches?
   A. Colombia       B. Spain       C. Italy       D. cannot be determined

50. If France lost both remaining matches then, which two teams have equals victories?
   A. France and Colombia       B. Netherlands and Kenya
   C. France and Italy       D. None

**Puzzle 13**

51-54

Eight persons – Aaron, Adrian, Andrew, Benjamin, Blake, David, Dolores and Darrius – are to be seated around a round table facing inwards. The following information is provided regarding their seating arrangement.

1. There is only one pair of persons whose names start with the same letter such that the two persons in the pair sit diametrically opposite to each other.

2. The two persons who are seated at an angle of 135° (in clockwise as well as anti-clockwise directions) with respect to Aaron have their names starting with the same letter.

3. David sits diametrically opposite Aaron. Adrian sits diametrically opposite a person whose name starts with the immediate next letter in the alphabet.
4. Both the immediate neighbours of Blake have their names starting with different letters.

51. If position of Blake is fixed, the positions of how many people (including Blake) can be uniquely determined?

52. Who sits at an angle 90° in anti-clockwise direction with respect to David?
   A. Darrius   B. Benjamin   C. Dolores   D. Cannot be determined

53. If Adrian sits to the immediate right of Darrius, then who sits second to the left of Dolores?
   A. Aaron   B. Blake   C. David   D. Benjamin

54. If Andrew sits at an angle of 90° with respect to Benjamin, then what is the measure of the angle (in degrees) between Blake and Andrew in the clockwise direction?

**Puzzle 14**

55-58

In the tournament CL 2017, eight teams participated – A, B, C, D, E, F, G and H.
In Round I, all the eight teams participated but only four qualified for Round II. The four teams that did not qualify for Round II were declared as Round I losers. In Round II, out of the four teams, only one of the teams was declared as the Champion whereas the remaining three teams were declared as Round II losers.

Ten punters – I, II, III, IV, V, VI, VII, VIII, IX and X made their predictions regarding the Champion, two of the three Round II losers and three of the four Round I losers, as shown in the table below.

<table>
<thead>
<tr>
<th>PUNTER</th>
<th>Champion</th>
<th>ROUND II LOSERS</th>
<th>ROUND I LOSERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>D</td>
<td>F, H</td>
<td>B, C, G</td>
</tr>
<tr>
<td>II</td>
<td>H</td>
<td>B, G</td>
<td>D, E, A</td>
</tr>
<tr>
<td>III</td>
<td>A</td>
<td>H, B</td>
<td>G, C, E</td>
</tr>
<tr>
<td>IV</td>
<td>G</td>
<td>C, F</td>
<td>E, B, H</td>
</tr>
<tr>
<td>V</td>
<td>F</td>
<td>B, H</td>
<td>D, G, A</td>
</tr>
<tr>
<td>VI</td>
<td>A</td>
<td>E, B</td>
<td>H, F, G</td>
</tr>
<tr>
<td>VII</td>
<td>B</td>
<td>H, C</td>
<td>G, E, D</td>
</tr>
<tr>
<td>VIII</td>
<td>F</td>
<td>A, G</td>
<td>C, D, B</td>
</tr>
</tbody>
</table>

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
It is also known that:

I. Exactly four punters correctly predicted three of the four Round I losers.
II. Only one punter correctly predicted the Champion, two of the three Round II losers as well as three of the four Round I losers.
III. Exactly three punters correctly predicted two of the three Round II losers.

55. For how many punters can it be definitely concluded that they are not the punter who correctly predicted the Champion, two of the three Round II losers as well as three of the four Round I losers?
56. How many punters correctly predicted exactly one of the four Round I losers? (Write 11 if your answer is ‘Cannot be determined’)
57. Which of the following teams is definitely a Round II Loser?
   A. F  B. B  C. H  D. cannot be determined
58. Which of the following teams did not qualify for Round II?
   A. B  B. F  C. C  D. G

Puzzle 15

59-62

Data collected on winners of Australian Open, French Open, Wimbledon and US Open held over 10 years (each championship held every year) revealed the following:

1. Players from total 8 different countries won at least one championship over the 10 year period. They are Spain, Sweden, USA, Russia, Brazil, Germany, Australia and Netherlands.
2. Each championship was won by players from exactly five different countries in the 10-year period.
3. Number of Australian open championships won by players from Sweden is equal to number of French open championships won by players from USA, which is also same as number of Wimbledon championships won by players from USA.
4. Total number of championships won by players from Spain was two times the total number of championships won by players from Russia.
5. Players from Spain won equal number of Australian Open, French Open and Wimbledon. So was the case with players from Russia.

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
6. For players from Germany: Number of Wimbledon championships > Number of French Open championships > Number of US Open championships.

Following table shows the partial information on the number of championships won by players from different countries:

<table>
<thead>
<tr>
<th></th>
<th>Australian Open</th>
<th>French Open</th>
<th>Wimbledon</th>
<th>US Open</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>USA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>Russia</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>0</td>
<td>0</td>
<td></td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Germany</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Australia</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

59. Which of the following statements can be true?
A. Number of French Open championships won by players from Sweden is equal to number of Wimbledon championships won by players from USA.
B. Number of French Open championships won by players from Sweden is equal to the number of Wimbledon championships won by players from Sweden.
C. Number of French Open championships won by players from Sweden is equal to number of US Open championships won by players from USA.
D. None of the above

60. Which of the following can be the number of US Open championships won by players from USA?
A. 5
B. 4
C. 3
D. 2

61. Which of the following statements cannot be true?
A. Out of the five countries that won at least one Australian open championship, players from three countries won equal number of Australian open championships.
B. Out of the five countries that won at least one Wimbledon championship, players from three countries won equal number of Wimbledon championships.
C. Sum of number of French open championships won by players from Sweden and number of US open championships won by players from USA is 6.
D. Sum of number of Australian open championships won by players from Sweden and number of French open championships won by players from USA is 4.
62. If number of Australian Open championships won by players from USA was equal to number of US Open championships won by players from Sweden, which of the following is the number of French Open championships won by the players from USA?

A. 2  
B. 3  
C. 4  
D. 6

Puzzle 16

63-66

Housekeeping Solutions (HS) supplies servants (male or female) to do the household work in different housing societies in Bangalore. HS charges one month salary of the servant from its clients as its service charges. The salary paid to the servants is Rs. 1,000 per month for one hour daily, Rs. 2,000 per month for two hours daily and so on. Further, the number of hours for which each servant works everyday is a natural number. Five clients of HS, named Pragya, Janki, Gourav, Rajesh and Abhishek employ Reena, Meena, Shyamlal, Ramlal and Pannalal (in no particular order) for their household work.

Following points are known:

1. No female servant works in the house of a female client of HS.
2. Gourav employs Shyamlal and pays the highest service charges to HS.
3. Reena gets the least salary among the five servants.
4. Meena works for 6 hours in Abhishek’s house in Repose Housing Society.
5. Pragya pays more service charges to HS than Janki pays.
6. The highest and the lowest paid servants do not work in Tranquility Housing Society and Peace Housing Society.
7. Pannalal’s salary is more than that of exactly two other servants.
8. No two servants get equal salary and the minimum number of working hours per day of a servant is 3 and the maximum number of working hours per day of a servant is 8.
9. Serenity and Placidity are two of the five housing societies.
10. Among the clients of HS, Gourav, Rajesh and Abhishek are males while Pragya and Janki are females. Similarly, out of the servants, Reena and Meena are females while Shyamlal, Ramlal and Pannalal are males.

63. In which society does Shyamlal work?

A. Serenity  
B. Placidity  
C. either Serenity or Placidity  
D. neither Serenity nor Placidity

Andheri|Borivali|Powai|Mira Road|Pune|Online  
8999-11-8999

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
64. What is the name of the employee working in Jaya's house?
   A. Ramlal       B. Pannalal       C. Either Ramlal or Pannalal
   D. Neither Ramlal nor Pannalal

65. How much salary does Pannalal get per month (in Rs.)? (Write 0 if your answer is ‘Cannot be determined’)

66. What is the difference in the salary per month of the employees working in Tranquility and Peace Housing Societies (in Rs.)? (Write 0 if your answer is ‘Cannot be determined’)

**Puzzle 17**

67-69

The following sketch shows the pipelines carrying material from one location to another. Each location has a demand for Natural gas.

The demand at Point A is 400, at Point B is 400, at Point C is 700, and at Point D is 200. Each arrow indicates the direction of gas flow through the pipeline. The flow from Point A to Point B is 300. The quantity of gas flow is such that the demands at all these locations are exactly met. The capacity of each pipeline is 1000.

![Sketch of pipelines and points](image)

67. The quantity moved from Base to D is
   A. 200
   B. 800
   C. 700
   D. 1000

68. The free capacity available at the Base -A pipeline is
   A. 0
   B. 100
   C. 200
   D. 300

69. What is the free capacity available in the Base - D pipeline?
   A. 300
   B. 200
   C. 100
   D. 0

Andheri|Borivali|Powai|Mira Road|Pune|Online 8999-11-8999

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
Puzzle 18

70-73

A country has the following types of traffic signals.

3 red lights = stop;
2 red lights = turn left;
1 red light = turn right;
3 green lights = go at 100 kmph speed;
2 green lights = go at 50 kmph speed;
1 green light = go at 30 kmph speed.

A motorist starts at a point on a road and follows all traffic signals literally. His car is heading towards the north. He encounters the following signals (the time mentioned in each case below is applicable after crossing the previous signal).

Starting Point - 1 green light; after half an hour, 1st signal - 2 red & 2 green lights; after 15 minutes, 2nd signal - 1 red light; after half an hour, 3rd signal - 1 red & 3 green lights; after 24 minutes, 4th signal - 2 red & 2 green lights; after 15 minutes, 5th signal - 3 red lights;

70. The total distance travelled by the motorist from the starting point till the last signal is
A. 105  B. 107  C. 110  D. 120

71. What is the position (radial distance) of the motorist when he reaches the last signal
A. 65km directly north  B. 60km north-east of the starting point
C. 15km directly east  D. 50km north-east of the starting point

72. After the starting point if the 1st signal were 1 red and 2 green lights, what would be the final position of the motorist
A. 30km south-west  B. 30km south
C. 35.5km south-west  D. 35.5km south

73. If at the starting point, the car was heading towards south, what would be the final position of the motorist
A. 65km directly south  B. 60km south-west of the starting point
C. 15km directly west  D. 50km south-west of the starting point
Drake & Josh Paint Company (DJPC) is in the business of manufacturing paints, DJPC buys Red, Yellow, White, Orange and Pink paints. Orange paint can be also produced by mixing Red and Yellow paints in equal proportions. Similarly, Pink paint can also be produced by mixing equal amounts of Red and White paints. Among other paints, DJPC sells Cream paint, (formed by mixing White and Yellow in the ratio 70:30) Avocado paint (formed by mixing equal amounts of Orange and Pink paint) and Washed orange paint (formed by mixing equal amounts of Orange and White paint.) The following table provides the price at which DJPC buys paints.

<table>
<thead>
<tr>
<th>Colour</th>
<th>Rs. / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>20.00</td>
</tr>
<tr>
<td>Yellow</td>
<td>25.00</td>
</tr>
<tr>
<td>White</td>
<td>15.00</td>
</tr>
<tr>
<td>Orange</td>
<td>22.00</td>
</tr>
<tr>
<td>Pink</td>
<td>18.00</td>
</tr>
</tbody>
</table>

74. The cheapest way to manufacture avocado paint would cost
(a) Rs 19.50 per litre (b) Rs 19.75 per litre (c) Rs 20.00 per litre (d) Rs 20.25 per litre

75. Washed orange can be manufactured by mixing
(a) Cream and Red in the ratio 14:10 (b) Cream and Red in the ratio 3:1
(c) Yellow and Pink in the ratio 1:1 (d) Red, Yellow and White in the ratio 1:1:2

76. Assume that Avocado, Cream and Washed orange each sells for the same price. Which of the three is the most profitable to manufacture?
(a) Avocado (b) Cream (c) Washed orange (d) Sufficient data is not available

Puzzle 20

Baker acted as a judge for the beauty contest. There were four participants, viz. Ms. Alaska, Ms. Utah, Ms. Wisconsin and Ms. Maryland. Mrs. Baker, who was very anxious about the result asked him about it.
as soon as he was back home. Baker just told that the one who was wearing the yellow dress won the contest. When Mrs. Baker pressed for further details, he elaborated as follows:

I. All of them were sitting in a row

II. All of them wore dresses of different colors, viz. Green, Yellow, White, Red

III. There was only one runner up and she was sitting beside Ms. Maryland

IV. The runner up was wearing the Green dress

V. Ms. Wisconsin was not sitting at the ends and was not a runner up

VI. The winner and the runner up are not sitting adjacent to each other

VII. Ms. Maryland was wearing white dress

VIII. Ms. Alaska was not wearing the Green dress

IX. Participants wearing Yellow dress and White dress were at the ends

77. Who wore the Red dress?
   A. Ms. Alaska   B. Ms. Wisconsin   C. Ms. Utah   D. Ms. Maryland

78. Ms. Wisconsin was sitting adjacent to...
   A. Ms. Alaska and Ms. Maryland   B. Ms. Utah and Ms. Maryland
   C. Ms. Alaska and Ms. Utah   D. Ms. Utah only

79. Which dress was worn by Ms. Alaska?
   A. Yellow   B. Red   C. Green   D. White

80. Who was the runner up?
   A. Ms. Alaska   B. Ms. Wisconsin   C. Ms. Utah   D. Ms. Maryland

Puzzle 21

81-84

Five friends meet every morning at Mulberry cafe for a pancake-waffle breakfast. Each consumes a different number of pancakes and waffles. The number of pancakes consumed are 1, 4, 5, 6 and 8 while the number of waffles consumed are 0, 1, 2, 4, and 6. Below are some more facts about who eats what and how much.

(i) The number of waffles eaten by Iasiah is three times the number of waffles consumed by the person who eats four pancakes.

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
(ii) Three persons, including the one who eats four waffles, eat without maple syrup
(iii) Sam does not take any maple syrup
(iv) The one who eats one pancake a day does not eat any waffles or maple syrup. Further he is not Mason
(v) Damian eats pancake with maple syrup and also eats waffle
(vi) Mason, who does not take maple syrup, eats half as many waffles as the person who eats twice as many pancakes as he does
(vii) Buford eats two more pancakes than Iasiah, but Iasiah eats two more waffles than Buford

81. Which of the following statements is true?
   A. Mason eats 8 pancakes and 4 waffles but no maple syrup
   B. The person who eats 5 pancakes and 1 waffle does not take maple syrup
   C. The person who eats equal numbers of waffles and pancakes also takes maple syrup
   D. The person who eats 4 pancakes and 2 waffles also takes maple syrup

82. Which of the following statements is true?
   A. Sam eats 2 waffles
   B. Mason eats 4 waffles
   C. Iasiah eats 4 waffles
   D. Buford eats 4 waffles

83. Which one of the following statements is true?
   A. Damian eats 5 pancakes
   B. Iasiah eats 8 pancakes
   C. Buford eats 1 pancake
   D. Buford eats 6 pancakes

84. Who eats the least number of waffles?
   A. Buford
   B. Sam
   C. Damian
   D. Mason

Puzzle 22

85-88

A theft took place in the office lounge of a company between 1 pm and 3pm. The HR manager of the company was given the task to find the culprit. Seven employees visited the lounge during the given time frame. On being questioned about their visit to the lounge the manager got the following responses.

A : I came in first, and the next two persons to enter were B and C. When I left the lounge, F and E were present in the lounge. D left with me

F : When I entered the lounge with E, A was sitting here. There was someone else, but I cannot remember who it was

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
C: I went to the lounge for a short while, and met A, B, and D in the lounge that day.

B: I left immediately after C left.

D: I met A, B, C, F and E during my first visit to the lounge. I went back to my office with A. When I went to the lounge the second time, F and E were there.

G: I had some urgent work, so I did not sit in the lounge that day, but just collected my coffee and left. F and D were the only people in the lounge while I was there.

E: No comments.

85. Based on the responses, which of the two, F or D, entered the lounge first?
   A. F  B. D  C. Both entered together  D. Cannot be deduced

86. Who was sitting with A when F entered the lounge?
   A. B  B. C  C. D  D. G

87. How many of the seven members did E meet in the lounge?
   A. 2  B. 3  C. 4  D. 5

88. Who were the last two faculty members to leave the lounge?
   A. A and D  B. G and D  C. F and G  D. F and D

Puzzle 23

89-92

Six women decided to go shopping to Fashion street, Bombay. They arrived at the designated meeting place in the following order: (1) Asha, (2) Claire, (3) Disha, (4) Hina, (5) Elaine and (6) Sana. Each woman spent at least Rs 1000.

Below are some additional facts about how much they spent during their shopping spree.

(i) The woman who spent Rs 2432 arrived before the lady who spent Rs 1391
(ii) One woman spent Rs 1430 and she was not Disha
(iii) One woman spent Rs 1837 more than Claire
(iv) One woman spent Rs 2715 and she was not Asha
(v) Hina spent less than Disha
(vi) Elaine did not spend the largest amount and Claire spent the smallest
(vii) Elaine spent more than Disha
(viii) Highest spender spent less than Rs 3300 and Rs 200 more than the second highest spender

89. The combined expenditure of which two women is Rs 3823?
   A. Hina and Disha  B. Disha and Asha  C. Asha and Claire  D. Disha and Sana

90. Who spent more than 3 women but less than 2 women?
   A. Asha  B. Elaine  C. Claire  D. Disha

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
91. How many women spent more than Hina?
A. 5    B. 4    C. 3    D. 2

92. Difference in expenditure between which two women is Rs 596
A. Elaine and Asha    B. Asha and Hina
C. Sana and Disha    D. Sana and Asha

Puzzle 24

93-96

Recently, the answers of a test held nationwide were leaked to a group of unscrupulous people. The investigative agency has arrested the mastermind and nine other people A, B, C, D, E, F, G, H and I in this matter. Interrogating them, the following facts have been obtained regarding their operation. Initially the mastermind obtains the correct answer-key. All the others create their answer-key in the following manner. They obtain the answer key from one or two people who already possess the same. The people are called his/her “sources”. If the person has two sources, then he/she compares the answer-keys obtained from both sources. If the key to a question from both sources is identical, it is copied, otherwise it is left blank. If the person has only one source, he/she copies the source’s answers into his/her copy. Finally, each person compulsorily replaces one of the answers (not a blank one) with a wrong answer in his/her answer key.

The paper contained 200 questions; so the investigative agency has ruled out the possibility of two or more of them introducing wrong answers to the same question. The investigative agency has a copy of the correct answer key and has tabulated the following data. These data represent question numbers.

<table>
<thead>
<tr>
<th>Name</th>
<th>Wrong answer(s)</th>
<th>Blank answer(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>104</td>
<td>54, 98, 33</td>
</tr>
<tr>
<td>C</td>
<td>35, 64</td>
<td>25, 54, 98</td>
</tr>
<tr>
<td>D</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>54, 98</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>22, 54</td>
<td>100, 98</td>
</tr>
<tr>
<td>G</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>54, 100</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>35</td>
<td>25, 54, 98</td>
</tr>
</tbody>
</table>

93. Which one among the following must have two sources?
A. D    B. C    C. B    D. A

94. How many people (excluding the mastermind) needed to make answer-key before C could make his answer-key?
A. 2    B. 3    C. 4    D. 5

Andheri|Borivali|Powai|Mira Road|Pune|Online
8999-11-8999

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
95. Both G and H were sources to
   A. F   B. B   C. I   D. None
96. Which of the following two groups of people had identical sources? (I) A, D and G (II) E and H.
   A. only I   B. only II   C. either I or II   D. Neither I nor II

Puzzle 25

97-100

A company Pearson Specter India Ltd. conducted a test to judge five employees for five managerial qualities. The panel gave them points out of 10 (10 being the highest and 1 being the lowest) for each of the qualities. Two employees can be put on the same project if their qualities are less contrasting.

The “contrastive level” of two employees is the sum of the absolute difference between the points given to each of the qualities of the two employees. The points given by the panel to the five employees are as given in the following table:

<table>
<thead>
<tr>
<th>Qualities</th>
<th>Mr. Joshi</th>
<th>Mr. Patil</th>
<th>Mr. Kulkarni</th>
<th>Mr. Yadav</th>
<th>Mr. Desai</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>6</td>
<td>9</td>
<td>8</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Team Building</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Creativity</td>
<td>9</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Communication</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Pressure Handling</td>
<td>4</td>
<td>5</td>
<td>10</td>
<td>7</td>
<td>3</td>
</tr>
</tbody>
</table>

97. If Mr. Desai is selected for a project, then who can work with him on that project?
   A. Mr. Joshi   B. Mr. Patil   C. Mr. Yadav   D. Mr. Kulkarni
98. Whose qualities are the most contrasting with the qualities of Mr. Kulkarni?
   A. Mr. Patil   B. Mr. Joshi   C. Mr. Yadav   D. Mr. Desai
99. Which of the following pairs of the employees has the most contrasting qualities?
   A. Kulkarni and Desai   B. Patil and Joshi   C. Yadav and Joshi   D. Patil and Yadav
100. If Mr. Joshi and Mr. Patil are selected for one project, then which of the following pairs can be selected for some other project?
    A. Yadav and Kulkarni   B. Kulkarni and Desai   C. Yadav and Desai   D. 1 or 2

Puzzle 26

101-104

Four families decided to attend the marriage ceremony of one of their colleagues. One family has no kids, while the others have at least one kid each. Each family with kids has at least one kid attending the marriage. Given below is some information about the families, and who reached when to attend the marriage.

Andheri|Borivali|Powai|Mira Road|Pune|Online   8999-11-8999

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
The family with 2 kids came just before the family with no kids.

Rochelle who does not have any kids reached just before Samantha’s family

Roger and his wife reached last with their only kid.

Anthony is not the husband of Joyce

Anthony and Rician are fathers.

Samantha’s and Annette’s daughter go to the same school.

Joyce came before Rochelle and met Annette when she reached the venue.

Samuel stays the farthest from the venue.

Rician said his son could not come because of his exams.

101. Which woman arrived third?
   A. Rochelle  B. Samantha  C. Annette  D. Joyce

102. Name the correct pair of husband and wife?
   A. Rician and Rochelle  B. Roger and Samantha
   C. Anthony and Samantha  D. Rician and Annette

103. Of the following pairs, whose daughters go to the same school?
   A. Anthony and Samuel  B. Roger and Samuel
   C. Roger and Anthony  D. Rician and Anthony

104. Whose family is known to have more than one kid for certain?
   A. Samuel’s  B. Rician’s  C. Anthony’s  D. Roger’s

Puzzle 27

105-108

Asmita, Bindiya, Cheryll, Dipti, Esha, Fatima, Gauri and Harsha are standing in a row in that order. Asmita is at place 1, Bindiya at 2 and so on. They are rehearsing a dance sequence for their annual day. The dance steps involve shuffling their places in a specific way. When a signal is given, two steps are followed:

Step I: The persons at places 8, 7, 6 and 5 come and stand opposite to the persons at places 1, 2, 3 and 4 respectively forming two parallel rows.

Step II: The two rows perform a few steps and then merge into one row in such a way that the person opposite to the person in place 1 takes place 2, the person opposite to the person now at place 3 takes place 4 and so on.
The two steps form one round of the shuffling process. These two steps are repeated till the dancers attain their original positions. The sequence ends here.

105. How many times are Step I and Step II performed before the sequence ends?

106. At which place is Cheryll before the penultimate round starts?

107. How many members come to their original positions at least once before they all come to their original positions?

108. The next sequence is designed in the following way. The dancers break into two rows of four each. Then they follow steps I and II in two different rows simultaneously. In how many rounds will this sequence end? (The sequence ends when all the dancers attain their original positions in that sequence).

Puzzle 28

109-112

Twenty one participants from four continents (Africa, Americas, Australia, and Europe) attended a United Nations conference. Each participant was an expert in one of four fields, labour, health, population studies, and refugee relocation. The following five facts about the participants are given.
I. The number of labour experts in the camp was exactly half the number of experts in each of the three other categories.
II. Africa did not send any labour expert. Otherwise, every continent, including Africa, sent at least one expert for each category.
III. None of the continents sent more than three experts in any category.
IV. If there had been one less Australian expert, then the America would have had twice many experts as each of the other continents.
V. Mike and Alfanso are leading experts of population studies who attended the conference. They are from Australia.

109. Which of the following numbers cannot be determined from the information given?
   A. Number of labour experts from the Americas.
   B. Number of health experts from Europe.
   C. Number of health experts from Australasia.
   D. Number of experts in refugee relocation from Africa.

110. Which of the following combinations is NOT possible?
   A. 2 experts in population studies from the Americas and 2 health experts from Africa attended the conference.
   B. 2 experts in population studies from the Americas and 1 health expert from Africa attended the conference.

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
C. 3 experts in refugee relocation from the Americas and 1 health expert from Africa attended the conference.
D. Africa and America each had 1 expert in population studies attending the conference.

111. If Ramos is the lone America expert in population studies, which of the following is NOT true about the numbers of experts in the conference from the four continents?
   A. There is one expert in health from Africa.
   B. There is one expert in refugee relocation from Africa.
   C. There are two experts in health from the Americas.
   D. There are three experts in refugee relocation from the Americas.

112. Alex, an American expert in refugee relocation, was the first keynote speaker in the conference. What can be inferred about the number of American experts in refugee relocation in the conference, excluding Alex? (i) At least one (ii) At most two
   A. Only (i) and not (ii)  
   B. Only (ii) and not (i)  
   C. Both (i) and (ii)  
   D. Neither (i) nor (ii)

Puzzle 29

113-116

Vishal, Paresh, Dinesh and Advait scored 3.75, 3.75, 7.5 and 2.5 respectively in an aptitude test. There were ten questions in the test with one mark for every question attempted correctly. One-fourth mark was deducted from the score for every question attempted wrongly. Four options were given for every question. Responses given by the four students are as follows:

<table>
<thead>
<tr>
<th>Question Number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q.1</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>Q.2</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>Q.3</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>Q.4</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>Q.5</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>Q.6</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>Q.7</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>Q.8</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>Q.9</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>Q.10</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td></td>
</tr>
</tbody>
</table>

There is only one question in which all the four students committed a mistake and in this question all the four marked the same option as their answer.

113. If Dinesh attempts Q10 incorrectly, what is the correct answer option for Q1?
   A. 1  
   B. 3  
   C. 4  
   D. 3 OR 4
114. If Dinesh marks Q10 wrongly, for how many questions is option 2 definitely the right answer?

A. 1  B. 2  C. 3  D. 1 OR 2

115. If Dinesh attempted Q2 incorrectly, what is the minimum number of questions for which option 3 is definitely the right answer?

A. 1  B. 2  C. 3  D. 4

116. If Dinesh attempted Q2 incorrectly, in how many questions that Advait attempted correctly, did Paresh err and vice versa?

A. 3  B. 4  C. 5  D. cannot be determined

Puzzle 30

117-120
The year was 2018, All six teams in Pool A of World Cup football, play each other exactly once. Each win earns a team three points, a draw earns one point and a loss earns zero points. The two teams with the highest points qualify for the semifinals. In case of a tie, the team with the highest goal difference (Goal For - Goals Against) qualifies.

In the opening match, Spain lost to Germany. After the second round (after each team played two matches), the pool table looked as shown below.

<table>
<thead>
<tr>
<th>Teams</th>
<th>Games Played</th>
<th>Won</th>
<th>Drawn</th>
<th>Lost</th>
<th>Goals For</th>
<th>Goals Against</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Argentina</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Spain</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Pakistan</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>New Zealand</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>South Africa</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

In the third round, Spain played Pakistan, Argentina played Germany, and New Zealand played South Africa. All the third round matches were drawn. The following are some results from the fourth and fifth round matches

(A) Spain won both the fourth and fifth round matches.

(B) Both Argentina and Germany won their fifth round matches by 3 goals to 0.

(C) Pakistan won both the fourth and fifth round matches by 1 goal to 0.

117. Which one of the following statement is true about matches played in the first two rounds?

A. Pakistan beat South Africa by 2 goals to 1
B. Argentina beat Pakistan by 1 goal to 0
C. Germany beat Pakistan by 2 goals to 1  
D. Germany beat Spain by 2 goals to 1

118. Which one of the following statements is true about matches played in the first two rounds?

A. Germany beat New Zealand by 1 goal to
B. Spain beat New Zealand by 4 goals to 0
C. Spain beat South Africa by 2 goals to 0
D. Germany beat Spain by 2 goals to 1

119. If Pakistan qualified as one of the two teams from Pool A, which was the other team that qualified?

A. Argentina    B. Germany    C. Spain    D. Cannot be determined

120. Which team finished at the top of the pool after five rounds of matches?

A. Argentina    B. Germany    C. Spain    D. Cannot be determined

Puzzle 31

121-124

Twelve cricket teams participated in a national level cricket tournament. These teams were distributed equally into two pools A and B. In the first round, each team played a match against all the other teams in its pool. Then three teams with highest average points from each pool qualified for the second round where all the teams played against each other once. Again, three teams with highest average points qualified for the final. In the final round, all the teams played a match against each other and the one with the highest average points was declared to be the winner of the tournament. A winner of any match gets two points, the loser loses one point and in case of a draw both the teams get one point each. Average points of a team are defined as the total points earned by the team so far divided by the number of matches played by the team so far.

The following table gives the total points earned and the average points for each team at the end of the tournament.

<table>
<thead>
<tr>
<th>Teams</th>
<th>A1</th>
<th>A2</th>
<th>A3</th>
<th>A4</th>
<th>A5</th>
<th>A6</th>
<th>B1</th>
<th>B2</th>
<th>B3</th>
<th>B4</th>
<th>B5</th>
<th>B6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>14</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>8</td>
<td>3</td>
<td>-3</td>
<td>13</td>
<td>3</td>
<td>6</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Average points</td>
<td>1.17</td>
<td>0.5</td>
<td>0.8</td>
<td>0.6</td>
<td>-0.6</td>
<td>1.08</td>
<td>0.6</td>
<td>0.6</td>
<td>0.4</td>
<td>0.58</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Also,
I. The winner of the tournament won both its matches in the finals.  
II. At the end of the second round, the total points earned by the teams who have qualified for the second round is 50.
121. Which 2 teams do not play against each other in the finals?
   A. A1, B1  
   B. A1, B6  
   C. A5, B2  
   D. B2, B6  

122. Find the total number of matches won by A2 and A4 in the first round.

123. How many points did the second runner up earn in the finals?
   A. -2  
   B. 1  
   C. 2  
   D. 0  

124. After round 2, the highest average points of any team are:
   A. 1  
   B. 1.2  
   C. 1.3  
   D. 0.9  

Puzzle 32

125-128
Narain, a stockbroker, invested a part of his money in the stock of four companies — A, B, C and D. Each of these companies belonged to different industries, viz., Cement, Information Technology (IT), Auto, and Steel, in no particular order. At the time of investment, the price of each stock was Rs 1000. Narain purchased only one stock of each of these companies. He was expecting returns of 20%, 10%, 30% and 40% from the stock of companies A, B, C and D, respectively. Returns are defined as the change in the value of the stock after one year, expressed as a percentage of the initial value. During the year, two of these companies announced extraordinarily good results. One of these two companies belonged to the Cement or the IT industry, while the other one belonged to either the Steel or the Auto industry. As a result, the returns on the stocks of these two companies were higher than the initially expected returns. For the company belonging to the Cement or the IT industry with extraordinarily good results, the returns were twice that of the initially expected returns. For the company belonging to the Steel or the Auto industry, the returns on announcement of extraordinarily good results were only one and a half times that of the initially expected returns. For the remaining two companies, which do not announce extraordinarily good results, the returns realized during the year were the same as initially expected.

125. What is the minimum average return Narain would have earned during the year?
   A. 30%  
   B. 31%  
   C. 32%  
   D. Cannot be determined  

126. If Narain earned a 35% return on average during the year, then which of these statements would necessarily be true?
   I. Company A belonged to Auto or to Steel Industry.
   II. Company B did not announce extraordinarily good results.
   III. Company A announced extraordinarily good results.
   IV. Company D did not announce extraordinarily good results.
   A. I and II only  
   B. II and III only  
   C. III and IV only  
   D. II and IV only  

127. If Narain earned a 38.75% return on average during the year, then which of these statements would necessarily be true?
   I. Company C belonged either to Auto or to Steel Industry.
   II. Company D belonged either to Auto or to Steel Industry.
   III. Company A announced extraordinarily good results.
   IV. Company B did not announce extraordinarily good results.
   A. I and II only  
   B. II and III only  
   C. I and IV only  
   D. II and IV only  

Andheri|Borivali|Powai|Mira Road|Pune|Online 8999-11-8999

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
128. If Company C belonged to the Cement or the IT industry and did announce extraordinarily good results, then which of these statement(s) would necessarily be true?
I. Narain earned not more than 36.25% return on average.
II. Narain earned not less than 33.75% return on average.
III. If Narain earned 33.75% return on average, Company A announced extraordinarily good results.
IV. If Narain earned 33.75% return on average, Company B belonged either to Auto or to Steel Industry.
A. I and II only  B. II and IV only  C. II and III only  D. III and IV only

Puzzle 33

129-132
A got five movie tickets as a gift in a contest. He and his four friends B, C, D and E decide to go for the movie. Three of the tickets were first row tickets numbered 101, 102 and 103 and the other two were second row tickets numbered 201 and 202 from left to right, respectively. A and B do not sit in the same row. D and E are sitting next to each other. The person sitting to the right of E is not a member belonging to the group. The units digit of the ticket numbers of A and C are the same.

129. Who is on the right of C?
A. D  B. E  C. B  D. A

130. Who is sitting on seat number 102?
A. A  B. B  C. C  D. D

131. Which pair of the following sits in the second row?
A. C&B  B. A&C  C. A&E  D. D&E

132. If a person sitting to the right of E is the member of the group then who is sitting on seat number 201?
A. D  B. C  C. E  D. A

Puzzle 34

133-136
The year is 2089. Tokyo, Montreal, Berlin, and Zurich are in contention to host the 2096 Olympics. The eventual winner is determined through several rounds of voting by members of the IOC with each member representing a different city. All the four cities in contention are also represented in IOC.

- In any round of voting; the city receiving the lowest number of votes in that round gets eliminated.
The survivor after the last round of voting gets to host the event.

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
• A member is allowed to cast votes for at most two different cities in all rounds of voting combined. (Hence, a member becomes ineligible to cast a vote in a given round if both the cities(s) he voted for in earlier rounds are out of contention in that round of voting.)
• A member is also ineligible to cast a vote in a round if the city(s) he represents is in contention in that round of voting.
• As long as the member is eligible, he must vote and vote for only one candidate city in any round of voting.

The following incomplete table shows the information on cities that received the maximum and minimum votes in different rounds, the number of votes cast in their favour, and the total votes that were cast in those rounds.

<table>
<thead>
<tr>
<th>Round</th>
<th>Total votes cast</th>
<th>Maximum votes cast</th>
<th>Eliminated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>City</td>
<td>No. of votes</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>Montreal</td>
<td>30</td>
</tr>
<tr>
<td>2</td>
<td>83</td>
<td>Zurich</td>
<td>32</td>
</tr>
<tr>
<td>3</td>
<td>75</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is also known that:
• All those who voted for Montreal and Zurich in round 1, continued to vote for the same cities in subsequent rounds as long as these cities were in contention. 75% of those who voted for Tokyo in round 1, voted for Tokyo in round 2 as well.
• Those who voted for Berlin in round 1, voted either for Tokyo or Zurich in round 2.
• The difference in votes cast for the two contending cities in the last round was 1.
• 50% of those who voted for Tokyo in round 1, voted for Zurich in round 3.

133. What percentage of members from among those who voted for Berlin in round 1, voted for Tokyo in round 2?
A. 33.33  B. 50  C. 66.67  D. 75

134. What is the number of votes cast for Zurich in round 1?
A. 16  B. 24  C. 22  D. 18

135. What percentage of members from among those who voted for Tokyo in round 2 and were eligible to vote in round 3, voted for Montreal?
A. 33.33  B. 38.10  C. 66.67  D. 50

136. Which of the following statements must be true?
(a) IOC member from Berlin must have voted for Zurich in round 2.
(b) IOC member from Tokyo voted for Montreal in round 3.
A. Only a  B. Only  C. Both a and b  D. Neither a nor b
Puzzle 35

137-140

Five competitors J, K, L, M and N have completed the first event of a three–event competition with K, L, M, J and N taking the 1st, 2nd, 3rd, 4th and 5th positions respectively. The scoring for the three–event competition is as follows:

The winner of the first event receives 5 points; the second–place finisher, 4 points; the third–place finisher, 3 points; the fourth–place finisher, 2 points and the last–place finisher, 1 point. The point values for the second and the third events are calculated in the same manner, but the score for the second event is counted twice in the total point standings for the entire competition.

No ties are possible in the individual events, although there can be ties in the total point standing. The competitor with the most points after the completion of all three events wins the competition.

137. If K finishes third in the second event, the highest possible winning score for any player in the entire competition is:
   A. 20 B..19 C. 18 D. 17

138. If M and N have equal scores after the completion of the second event, then which of the following CANNOT be true of the outcome of the second event?
   A. J finished higher than M. B. K finished higher than M
   C. M finished second and N finished first. D. M finished fourth and N finished second.

139. If after the second event, K and M are in a tie for the first place in total point standings, then atmost how many points must each of them have?
   A. 13 B.14 C. 15 D. 16

140. If in the second event, the competitors finish in the same order that they did in the first event, which of the following could be a possible outcome of the entire competition?
   A. J finishes second in total point standings. B. K
   finishes third in total point standings. C. L
   finishes third in total point standings. D. M
   finishes first in total point standings.

Puzzle 36

141-145

Two traders, Carl and Mikel, were involved in the buying and selling of MGM shares over five trading days. At the beginning of the first day, the MGM share was priced at Rs 100, while at the end of the fifth day it was priced at Rs 110. At the end of each day, the MGM share price either went up by Rs 10, or else, it came down by Rs 10. Both Carl and Mikel took buying and selling decisions at the end of each trading day. The beginning price of MGM share on a given day was the same as the ending price of the previous day. Carl and Mikel started with the same number of shares and amount of cash, and had enough of both. Below are some additional facts about how Carl and Mikel traded over the five trading days.

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
• Each day if the price went up, Carl sold 10 shares of MGM at the closing price. On the other hand, each day if the price went down, he bought 10 shares at the closing price.
• If on any day, the closing price was above Rs 110, then Mikel sold 10 shares of MGM, while if it was below Rs 90, he bought 10 shares, all at the closing price.

141. If Carl sold 10 shares of MGM on three consecutive days, while Mikel sold 10 shares only once during the five days, what was the price of MGM at the end of day 3?
   A. Rs 90  B. Rs 100  C. Rs 110  D. Rs 120 (e) Rs 130

142. If Mikel ended up with 20 more shares than Carl at the end of day 5, what was the price of the share at the end of day 3?
   A. Rs 90  B. Rs 100  C. Rs 110  D. Rs 120 (e) Rs 130

143. What could have been the maximum possible increase in combined cash balance of Carl and Mikel at the end of the fifth day?
   A. Rs 3700  B. Rs 4000  C. Rs 4700  D. Rs 5000 (e) Rs 6000

144. If Carl ended up with Rs 1300 more cash than Mikel at the end of day 5, what was the price of MGM share at the end of day 4?
   A. Rs 90  B. Rs 100  C. Rs 110  D. Rs 120

145. If Mikel ended up with Rs 100 less cash than Carl at the end of day 5, what was the difference in the number of shares possessed by Mikel and Carl (at the end of day 5)?
   A. Mikel had 10 less shares than Carl.  B. Mikel had 10 more shares than Carl.
   C. Carl had 10 more shares than Mikel.  D. Carl had 20 more shares than Mikel.

Puzzle 37

146-149

A band has five members – Jack, Karen, Louise, Mark and Nancy. Whenever they give a performance, each of them plays one of five instruments – banjo, drums, guitar, harmonica and piano.
– All five instruments are used in each performance.
– Karen is able to play only the banjo.
– Jack is able to play only the harmonica.
– Nancy is able to play any instrument except the piano.
– Mark is able to play both the guitar and the drums, but no other instrument.
– Louise is able to play all instruments.

146. Which of the following could be true?
   A. Mark plays the drums at the performance.
   B. Karen plays the harmonica at the performance.
   C. Jack plays the piano at the performance.
   D. Louise plays the harmonica at the performance.

147. What instrument must Louise play at a performance?
   A. Banjo  B. Drums  C. Guitar  D. Piano
148. Which of the following CANNOT be true?
   A. Jack plays the harmonica at a performance.
   B. Karen plays the piano at a performance
   C. Nancy plays the drums at a performance.
   D. Mark plays the guitar at a performance.

149. If Nancy plays the drums at the performance, who plays the guitar?
   A. Jack  
   B. Karen  
   C. Louise  
   D. Mark

**Puzzle 38**

150-154

A, B, C, D, E, F, G, H, I and J are the only ten members in a department. There is a proposal to form a team from within the members of the department, subject to the following conditions:

- A team must include exactly one among E, G and H.
- A team must include either C or F, but not both.
- If a team includes A then it must also include B, and vice versa.
- If a team includes one among H, I and J then it must also include the other two.
- B and D cannot be members of the same team.
- B and I cannot be members of the same team.

The size of a team is defined as the number of members in the team.

150. Who can be a member of a team of size 5?
   A. A  
   B. B  
   C. C  
   D. E

151. Who cannot be a member of a team of size 3?
   A. B  
   B. C  
   C. D  
   D. E

152. What could be the size of a team that includes A?
   A. 2 or 3  
   B. 2 or 4  
   C. 3 or 4  
   D. Only 4

153. In how many ways a team can be constituted so that the team includes D?
   A. 2  
   B. 3  
   C. 4  
   D. 6

154. What would be the size of the largest possible team?
   A. 8  
   B. 5  
   C. 6  
   D. 7

**Puzzle 39**

155-158

There is a four-generation family. The total number of married couples is five. There are seven men and seven women in the family. B is the eldest of all of them. A is the mother of C and D, who are sisters. E is the son-in-law of B. D is G and H's aunt. C has two nieces - one married and one unmarried. K, J and H, L are couples. M is C’s granddaughter. N is the great grandson of A. G is M’s uncle. I is unmarried. F is married. M and N are not siblings.

155. How is A related to I?
   A. Aunt  
   B. Grandmother  
   C. Mother-in-law  
   D. Great grandmother

156. In which of the following ways can H be related to J, if we know for sure that they are related?
   A. Cousins  
   B. Aunt - Niece  
   C. Uncle - Niece  
   D. Son-in-law -Father-in-law

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
157. Who is M’s grandfather?
   A. E  B. F  C. B  D. Cannot be determined

158. How is N related to J?
   A. Son  B. Nephew  C. Daughter  D. Cannot be determined

Puzzle 40
159-162

The proportion of male students and the proportion of vegetarian students in a school are given below. The school has a total of 1600 students, 80% of whom are in the Secondary Section and rest equally divided between Class 11 and 12.

<table>
<thead>
<tr>
<th></th>
<th>MALE</th>
<th>VEGETARIAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLASS XII</td>
<td>0.55</td>
<td></td>
</tr>
<tr>
<td>CLASS XI</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>SECONDARY</td>
<td>0.555</td>
<td>0.54</td>
</tr>
<tr>
<td>TOTAL</td>
<td>0.555</td>
<td>0.54</td>
</tr>
</tbody>
</table>

159. What is the percentage of vegetarian students in Class 12?
   A. 40  B. 45  C. 50  D. 55

160. In Class 12, twenty five per cent of the vegetarians are male. What is the difference between the number of female vegetarians and male non-vegetarians?
   A. 16  B. 12  C. 32  D. 24

161. What is the percentage of male students in the secondary section?
   A. 47  B. 55  C. 57  D. 53

162. Which of the given statements is true?
   1. The number of males and vegetarians is same for secondary
   2. The number of females and non-vegetarians is same for secondary
   3. The number of males and vegetarians is same for XII
   4. The number of females and non-vegetarians is same for XII
   A. 1&2  B. 3&4  C. All of them  D. None

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
Puzzle 41

163-166

A garment designer wants to select a three-colour combination for a new clothing style. He needs to select exactly two sets (three distinct colours in each set) from the following spread of colours: Violet, Blue, Green, Yellow, Orange, Red and Purple. He keeps in mind the following conditions while selecting the sets:

a) There should be exactly one common colour between the two sets.

b) Violet and Purple are never together in a particular set.

c) If Green is chosen for a particular set, Orange has to be chosen.

d) If Orange is chosen for the first set, Yellow cannot be chosen for the second.

e) If Yellow is chosen for the first set, Orange cannot be chosen for the second.

f) If Orange is chosen for the first set, Yellow cannot be chosen for the second.

g) If Blue is chosen for the first set, Yellow cannot be chosen for the second.

h) If Red is chosen for the first set, Blue cannot be chosen for the second.

163. Which of the following combinations is/are possible for set I and set II?

A. Set I: (Blue, Yellow, Green) and Set II: (Red, Violet, Blue)

B. Set I: (Violet, Green, Orange) and Set II: (Violet, Orange, Red)

C. Set I: (Red, Violet, Blue) and Set II: (Violet, Green, Orange)

D. None of these

164. If Green and Violet are chosen for set I and Orange for set II, the other colours in Set II can be:

A. Blue and Red

B. Blue and Green

C. Red and Yellow

D. Purple and Yellow

165. If Purple, Yellow and Blue are chosen for set I, then set II must have:

A. Purple, Orange, Red

B. Blue, Red, Violet

C. Purple, Red, Yellow

D. Purple, Green, Orange

166. If Red and Blue are chosen for set I, the third colour that cannot be chosen for the set is:

A. Violet

B. Orange

C. Purple

D. Yellow

---

Puzzle 42

167-170

A food company is trying to make various diet formulations, which can be used for improving the quality of the RTM (ready to make) food packets and for targeting various types of people. It is considering a choice of 5 alternative ingredients (O, P, Q, R and S), which can be used in different proportions in the formulations. The table below gives the composition of these ingredients. The
167. The company is planning to launch a balanced diet required for growth needs of adolescent children. This diet must contain at least 30% each of carbohydrate and protein, no more than 25% fat and at least 5% minerals. Which one of the following combinations of equally mixed ingredients is feasible?
   A. O and P  
   B. R and S  
   C. P and S  
   D. O and S 

168. For a recuperating patient, the doctor recommended a diet containing 10% minerals and at least 30% protein. In how many different ways can we prepare this diet by mixing at least two ingredients?
   A. One  
   B. Two  
   C. Three  
   D. Four 

169. Which among the following is the formulation having the lowest cost per unit for a diet having 10% fat and at least 30% protein? The diet has to be formed by mixing two ingredients.  
   A. P and Q  
   B. P and S  
   C. P and R  
   D. Q and S 

170. In what proportion P, Q and S should be mixed to make a diet having at least 60% carbohydrate at the lowest per unit cost?
   A. 2:1:3  
   B. 4:1:2  
   C. 4:1:1  
   D. 3:1:2 

Puzzle 43

171-174
- M, N, O, P, Q and R are perfectly straight one-way streets.
- Each street in this group is parallel to two of the other streets in the group, with no intervening parallel streets other than streets in the group.
- Each street in the group intersects three of the other streets in the group.
- Traffic moves in opposite directions on alternate streets.
- P and R intersect and O and Q are parallel.
- Traffic moves in the same direction on R and N.
- Traffic moves south on M.
- Traffic moves east on two of the streets.

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
171. Which of the following streets intersect?
   A. M and R  B. N and M  C. O and P  D. Q and N

172. It must be definitely true that traffic moves in:
   A. opposite directions on M and R.
   B. opposite directions on R and N.
   C. the same direction on O and P.
   D. the same direction on O and Q.

173. If traffic moves east on Q, which of the following must be true?
   I. Traffic on M can make a left turn onto Q.
   II. Traffic on R can make a left turn onto Q.
   III. Traffic moves east on O.
   A. I only  B. II only  C. I and II only  D. II and III only

174. If traffic moves west on P, which of the following must be true?
   A. Traffic can proceed on P across M and then make a right turn onto N.
   B. Traffic can proceed on R across P and then make a right turn onto Q/O.
   C. Traffic can proceed on R across M and then make a right turn onto N.
   D. Traffic on R that reaches the intersection of R and O can make a left turn onto O.

Puzzle 44

175-177
During the Campus placement drive in a college a written test was taken with four different sections, each with a maximum of 50 marks. The following table gives the aggregate as well as the sectional cut-off marks fixed by six different companies. A student will get placement only if he/she gets marks greater than or equal to the cut-off marks in each of the sections and his/her aggregate marks are at least equal to the aggregate cut off marks as specified by the company.

<table>
<thead>
<tr>
<th>Company</th>
<th>Section A</th>
<th>Section B</th>
<th>Section C</th>
<th>Section D</th>
<th>Aggregate Cut-off Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC</td>
<td>40</td>
<td>42</td>
<td>42</td>
<td></td>
<td>176</td>
</tr>
<tr>
<td>EFG</td>
<td>45</td>
<td>45</td>
<td></td>
<td></td>
<td>175</td>
</tr>
<tr>
<td>HIJ</td>
<td></td>
<td></td>
<td>46</td>
<td></td>
<td>171</td>
</tr>
<tr>
<td>KLM</td>
<td>43</td>
<td></td>
<td>45</td>
<td></td>
<td>178</td>
</tr>
<tr>
<td>DNO</td>
<td>45</td>
<td>43</td>
<td></td>
<td></td>
<td>180</td>
</tr>
<tr>
<td>PQR</td>
<td>41</td>
<td></td>
<td>44</td>
<td></td>
<td>176</td>
</tr>
</tbody>
</table>

175. Charlie got calls from two companies. What could be the minimum marks obtained by him in a section?
   A. 0  B. 21  C. 25  D. 35

176. Bhama got calls from all companies. What could be the minimum aggregate marks obtained by her?
   A. 180  B. 181  C. 196  D. 176,184

Andheri|Borivali|Powai|Mira Road|Pune|Online 8999-11-8999

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
177. Aditya did not get a call from even a single company. What could be the maximum aggregate marks obtained by him?
A. 181  B. 176  C. 184  D. 196,190

Puzzle 45

178-181

Four couples are sitting on a circular table facing the center. No two people of the same gender sit adjacent to each other. The men’s names are Manish, Amar, Bala and Shyam. The women are Rama, Reema, Rakhi and Rekha. Rakhi sits opposite Rekha.

178. Manish sits exactly in between Rekha and Reema. If Shyam sits opposite Amar, who sits next to Rekha, then who sits four places to the left of Manish?
A. Shyam  B. Amar  C. Bala  D. Cannot be determined

179. Who sits five places to the left of Bala? (Refer to the earlier question)
A. Reema  B. Rekha  C. Rakhi  D. Cannot be determined

180. Manish sits on the left of Rakhi and doesn’t want Amar opposite him. Amar does not want to sit in between Rekha and Reema. Who is Shyam and Bala’s common neighbour?
A. Reema  B. Rekha  C. Rama  D. Cannot be determined

181. When the above persons are arranged in the alphabetical order of their names such that when two consecutive names are considered the second one is to the right of the first, and there is no such condition that ‘No two people of the same sex sit opposite to each other’, it happens that all the couples sit opposite each other. Which of the following statements is/are true?

I. Bala and Rakhi are a couple.
II. Shyam is two places to the left of Bala.
III. Rekha sits three places to the left of Manish.

A. Only I  B. Only II  C. I and III  D. II and III

Puzzle 46

182-185

A week long sports festival was organized by LPC pvt.ltd to improve its PR ratings. In an event, six teams (A, B, C, D, E and F) are competing against each other. Matches are scheduled in two stages. Each team plays three matches in Stage-I and two matches in Stage-II. No team plays against the same team more than once in the event. No ties are permitted in any of the matches. The observations after the completion of Stage-I and Stage-II are as given below.

Stage-I:

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
* One team won all the three matches.
* Two teams lost all the matches.
* D lost to A but won against C and F.
* E lost to B but won against C and F.
* B lost at least one match.
* F did not play against the top team of Stage-I

**Stage-II:**
* The leader of Stage-I lost the next two matches.
* Of the two teams at the bottom after Stage-I, one team won both matches, while the other lost both matches.
* One more team lost both matches in Stage-II.

182. The teams that won exactly two matches in the event are:
   A. A, D & F       B. D & E       C. E & F       D. D & F
183. The team(s) with the most wins in the event is (are):
   A. A       B. A & C       C. B & E       D. F
184. The two teams that defeated the leader of Stage-I are:
   A. F & D       B. E & F       C. B & D       D. E & D
185. The only team(s) that won both the matches in Stage-II is (are):
   A. B, E & F       B. E & F       C. A, E & F       D. B

**Puzzle 47**

186-189
Nehru is the great grandfather of Shilpa who has two brothers and no sisters. Priyanka is Nehru's wife and they have three sons, two of whom are married. Abhay is the brother of Shilpa and Kamla is Abhay's mother. Rajiv is Kamla's uncle and also Ramesh's. Nehru has one grandson and one granddaughter, both of whom have different parents. There are 5 married couples in all. Abhay's cousin, Sachin, is Mohan's grandchild and Preeti's brother.

186. If Rahul is Kamla's father, who from the following is Sachin's grand-uncle?
   A. Rahul       B. Ramesh       C. Nehru       D. Abhay
187. Preeti's mother is Deepa, whose mother-in-law is Sonia. How is Mohan related to Deepa?
   A. Father       B. Father-in-law       C. Grand-uncle       D. Uncle
188. Karan is unmarried and the remaining two people of the 16-person family are Indira who is a female and Arjun. How is Abhay related to Indira?
   A. Grandson       B. Son       C. Nephew       D. Son-in-law
189. How is Karan related to Rahul?
   A. Son       B. Nephew       C. Grandson       D. Son-in-law
Puzzle 48

190-194

Xavier, Yohan and Zeke are three professional traders who trade in shares of a company ABC Ltd. Xavier follows the strategy of buying at the opening of the day at 10 am and selling the whole lot at the close of the day at 3 pm. Yohan follows the strategy of buying at hourly intervals: 10 am, 11 am, 12 noon, 1 pm and 2 pm, and selling the whole lot at the close of the day. Further, he buys an equal number of shares in each purchase. Zeke follows a similar pattern as Yohan but his strategy is somewhat different. Zeke’s total investment amount is divided equally among his purchases. The profit or loss made by each investor is the difference between the sale value at the close of the day less the investment in purchase. The “return” for each investor is defined as the ratio of the profit or loss to the investment amount expressed as a percentage.

190. Which one of the following statement is always true?
A. Xavier will not be the one with the minimum return
B. Return for Zeke will be higher than that of Yohan
C. Return for Yohan will be higher than that of Zeke
D. None of these

191. On a day of fluctuating market prices, the share price of ABC Ltd. ends with a gain, i.e., it is higher at the close of the day compared to the opening value. Which trader got the maximum return on that day?
A. Yohan
B. Zeke
C. Xavier
D. cannot be determined

192. On a “boom” day the share price of ABC Ltd. keeps rising throughout the day and peaks at the close of the day. Which trader got the minimum return on that day?
A. Yohan
B. Zeke
C. Xavier
D. Xavier or Zeke (e) cannot be determined

One day, two other traders, Conor and Khabib joined Xavier, Yohan and Zeke for trading in the shares of ABC Ltd. Conor followed a strategy of buying equal numbers of shares at 10 am, 11 am and 12 noon, and selling the same numbers at 1 pm, 2 pm and 3 pm. Khabib, on the other hand, followed the strategy of buying shares using all her money at 10 am and selling all of them at 12 noon and again buying the shares for all the money at 1 pm and again selling all of them at the close of the day at 3 pm. At the close of the day the following was observed:
(i) Xavier lost money in the transactions.
(ii) Both Conor and Khabib made profits.
(iii) There was an increase in share price during the closing hour compared to the price at 2 pm.
(iv) Share price at 12 noon was lower than the opening price.
193. Share price was at its highest at
   A. 11 am  B. 12 noon  C. 10 am  D. 1 pm

194. Which of the following is necessarily false?
   A. Share price was at its lowest at 2 pm
   B. Share price was at its lowest at 11 am
   C. Share price at 1 pm was higher than the share price at 2 pm
   D. none of the above

**Puzzle 49**

195-200
A significant amount of traffic flows from point S to point T in the one-way street network shown below. Points A, B, C, and D are junctions in the network, and the arrows mark the direction of traffic flow. The fuel cost in rupees for travelling along a street is indicated by the number adjacent to the arrow representing the street.

Motorists travelling from point S to point T would obviously take the route for which the total cost of travelling is the minimum. If two or more routes have the same least travel cost, then motorists are indifferent between them. Hence, the traffic gets evenly distributed among all the least cost routes. The government can control the flow of traffic only by levying appropriate toll at each junction. For example, if a motorist takes the route S-A-T (using junction A alone), then the total cost of travel would be Rs 14 (i.e., Rs 9 + Rs 5) plus the toll charged at junction A.

195. If the government wants to ensure that the traffic at S gets evenly distributed along streets from S to A, from S to B, and from S to D, then a feasible set of toll charged (in rupees) at junctions A, B, C, and D respectively to achieve this goal is:
   A. 0, 5, 4, 1   B. 0, 5, 2, 2   C. 1, 5, 3, 3   D. 1, 5, 3, 2

196. If the government wants to ensure that no traffic flows on the street from D to T, while equal amount of traffic flows through junctions A and C, then a feasible set of toll charged (in rupees) at junctions A, B, C, and D respectively to achieve this goal is:
   A. 1, 5, 3, 1   B. 1, 4, 4, 3   C. 1, 5, 4, 2   D. 0, 5, 2, 2

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
197. If the government wants to ensure that all motorists travelling from S to T pay the same amount (fuel costs and toll combined) regardless of the route they choose and the street from B to C is under repairs (and hence unusable), then a feasible set of toll charged (in rupees) at junctions A, B, C, and D respectively to achieve this goal is:
A. 2, 5, 3, 2  
B. 0, 5, 3, 1  
C. 1, 5, 3, 2  
D. 2, 3, 5, 1

198. If the government wants to ensure that all routes from S to T get the same amount of traffic, then a feasible set of toll charged (in rupees) at junctions A, B, C, and D respectively to achieve this goal is:
A. 0, 5, 2, 2  
B. 0, 5, 4, 1  
C. 1, 5, 3, 3  
D. 1, 5, 3, 2

199. The government wants to devise a toll policy such that the total cost to the commuters per trip is minimized. The policy should also ensure that not more than 70 per cent of the total traffic passes through junction B. The cost incurred by the commuter travelling from point S to point T under this policy will be:
A. Rs 7  
B. Rs 9  
C. Rs 10  
D. Rs 13

Puzzle 50

A room of floor area 8 × 8 is to be fitted with tiles of size 2 × 2 each having a different colour. The teal tile is between the white tile and the vermillion tile. The umber tile and the cobalt tile have a side in common. The crimson tile is adjacent to the black tile in the northern direction. The canary tile is adjacent to the crimson tile. The white tile is adjacent to the magenta tile in the southern direction.

200. If the vermillion tile is adjacent to the umber tile in the southern direction. Where is the canary tile fitted?
A. North of the magenta tile  
B. West of the cobalt tile  
C. South of the black tile  
D. Cannot be determined

201. If the cobalt tile is adjacent to the black tile in the eastern direction, then which of these tiles is adjacent to the crimson tile?
A. magenta  
B. cobalt  
C. umber  
D. Cannot be determined

202. If the crimson tile is adjacent to the umber tile in the eastern direction, then which of these tiles would be surrounded by four tiles?
A. canary  
B. cobalt  
C. black  
D. Cannot be determined

203. If the blue tile has the red tile besides it, then how many arrangements are possible?
A. 2  
B. 3  
C. 4  
D. 6
**Solutions:**

1-4

<table>
<thead>
<tr>
<th>BOXES</th>
<th>6 AM</th>
<th>8 AM</th>
<th>10 AM</th>
<th>12 NOON</th>
<th>2 PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>23</td>
<td>25</td>
<td>29</td>
<td>26</td>
<td>28</td>
</tr>
<tr>
<td>B</td>
<td>27</td>
<td>31</td>
<td>31</td>
<td>32</td>
<td>29</td>
</tr>
<tr>
<td>C</td>
<td>15</td>
<td>27</td>
<td>40</td>
<td>39</td>
<td>32</td>
</tr>
<tr>
<td>D</td>
<td>38</td>
<td>30</td>
<td>25</td>
<td>24</td>
<td>45</td>
</tr>
<tr>
<td>TOTAL</td>
<td>103</td>
<td>113</td>
<td>125</td>
<td>121</td>
<td>134</td>
</tr>
</tbody>
</table>

Minimum number of times for which the operations were performed are as follows:

**6:00 AM to 8:00 AM**

- Operation I: 113 – 103 = 10
- Operation II: 38 – 30 = 8
- Operation III: 0

Total = 18

**8:00 AM to 10:00 AM**

- Operation I: 125 – 113 = 12
- Operation II: 30 – 25 = 5
- Operation III: 0

Total = 17

**10:00 AM to 12:00 PM**

- Operation I: 0
- Operation II: 1
- Operation III: 125 – 121 = 4

Total = 5

**12:00 PM to 2:00 PM**

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
Operation I: $134 - 121 = 13$

Operation II: $(32 - 29) + (39 - 32) = 10$

Operation III: 0

Total = 23

Number of operations performed by Kumar = $18 + 17 + 5 + 23 = 63$.

1. C. 63
2. B. 4
3. C. 3
   
   From 10:00 AM to 12:00 noon: $8 - (25 - 23) - (31 - 27) = 2$
   
   From 12:00 noon to 2:00 PM: $5 - (29 - 25) = 1$
   
   From 2:00 PM to 4:00 PM: 0
   
   From 4:00 PM to 8:00 PM: 0
   
   Therefore, the required answer = $2 + 1 = 3$.

4. A. 24
   
   $8 + 5 + 1 + 10 = 24$.

5-8 Following all the conditions, we get
5. B. Economics

6. A. Mathematics

Given the new condition the only possibility is
7. C. Professors of Chemistry and Economics are seated next to each other.

8. A. The professor of Physics is seated between the professors of History and Mathematics on the same side of the table.

<table>
<thead>
<tr>
<th>DAY 1</th>
<th>SCREEN 1</th>
<th>SCREEN 2</th>
<th>SCREEN 3</th>
<th>SCREEN 4</th>
<th>SCREEN 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAY 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DAY 3</td>
<td></td>
<td></td>
<td></td>
<td>PN</td>
<td>LR</td>
</tr>
<tr>
<td>DAY 4</td>
<td>PN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DAY 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is given that in all the screens, except 2, IR was screened before IN. From this, we can say that on no other screen except 2, IN was screened on the first day and IR was screened on the fifth day. But as every movie was screened on the five screens on each day, it must be screen 2 on which IN was screened on the first day and SP on the fifth day.

Now, on one among the remaining four screens, IN was screened on the second day. As on all, except screen 2, IR was screened before IN, the screen on which IN was screened on the second day must have screened IR on the first day.

On another screen, IN was screened on the third day and on this screen IR was screened on the second day. Similarly, we can say that on the screen on which IN was screened on the fourth day, IR must have been screened on the third day and on the screen on which IN was screened on the fifth day, IR must have screened on the fourth day.

From the above, we can conclude that on all other screens apart from 2, IR and IN must have been screened on consecutive days.
Also, from (iii), as on screen 4, PN was screened before LR, which was screened third, PN must have been screened on the first two days. So, on screen 4, IR and IN could not have been screened on the first two days. Therefore, on screen 4, IR and IN were screened on the fourth and fifth days.

Now, from the above conclusion regarding screen 4, we can say that on screen 3, IR was not screened on the fourth day. Also, IR could not have been screened on the second day (according to (ii), PN was screened on the third day). Therefore, on screen 3, IR must have been screened on the first day and therefore, IN was screened on the second day.

Now from the above conclusions and from (iii), we can say that on screen 1, IR could not have been screened on the first day and third day. So, IR must have been screened on the second day and IN on the third day and therefore on screen 5, IR must have been screened on the third day and IN on the fourth day.

Now, on the third day, ER must have been screened on 2. PN must have been screened on 2 on the second day and LR on the fourth day. LR must have been screened on 5 on the second day. PN on the fifth day and ER on the first day. On screen 1, LR must have been screened on the first day and ER on the fifth day. On screen 3, ER and LR have been screened on the fourth and the fifth days respectively. Finally on screen 4, PN and ER have been screened on the first two days in the given order.

<table>
<thead>
<tr>
<th>DAY 1</th>
<th>SCREEN 1</th>
<th>SCREEN 2</th>
<th>SCREEN 3</th>
<th>SCREEN 4</th>
<th>SCREEN 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>LR</td>
<td>IR</td>
<td>IN</td>
<td>IR</td>
<td>PN</td>
<td>ER</td>
</tr>
<tr>
<td>IR</td>
<td>PN</td>
<td>IN</td>
<td>ER</td>
<td>IR</td>
<td>IN</td>
</tr>
<tr>
<td>IN</td>
<td>ER</td>
<td>LR</td>
<td>ER</td>
<td>IN</td>
<td>PN</td>
</tr>
<tr>
<td>PN</td>
<td>LR</td>
<td>ER</td>
<td>IR</td>
<td>LR</td>
<td></td>
</tr>
<tr>
<td>ER</td>
<td>IR</td>
<td>LR</td>
<td>IN</td>
<td></td>
<td>PN</td>
</tr>
</tbody>
</table>

9. B.IN
10. A. Screen 4
11. C. 5, 4, 2, 3, 1
12. B. 5

13-16
Consider members of groups C and E.
From I and II, R and T are not Y’s family members. X and Y are members of group E so, X is not from Y’s family. So, group C has member V from Y’s family.
Q and Y are members of group B. O and V are members of group D. So, O and Q are not members of Y & Z’s family. So, S represents the family, to which Y and V belong; in group A. Thus, from III and IV, Y, V and S belong to family 1 (i.e., either Mishra’s or Malhotra’s).
Now consider groups A and D. Neither Q nor Z are from same family as O. Among members of group B, Q, Z and Y are not from Ahuja family. So, W has to be from Ahuja family. R and V are not Ahuja family members. If T is from Ahuja family, then group E will not have a representation.
of Ahuja family. 
Thus, Ahuja family: O, W and X. 
Consider remaining members of groups A, B and C. R and Z has to be from one family and Q and T from the other family. Now from members of groups D and E, it can be concluded that R, Z and P are members of a same family, while Q, T and U are from one family.
So, from IV, Sharma family: R, Z and P Q, T and U belong to family 2 (i.e., either Malhotra's or Mishra's).

<table>
<thead>
<tr>
<th>Group A</th>
<th>O (Ahuja)</th>
<th>Q (2)</th>
<th>R (Sharma)</th>
<th>S (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group B</td>
<td>Q (2)</td>
<td>W (Ahuja)</td>
<td>Y (1)</td>
<td>Z (Sharma)</td>
</tr>
<tr>
<td>Group C</td>
<td>R (Sharma)</td>
<td>T (2)</td>
<td>V (1)</td>
<td>X (Ahuja)</td>
</tr>
<tr>
<td>Group D</td>
<td>O (Ahuja)</td>
<td>U (2)</td>
<td>V (1)</td>
<td>Z (Sharma)</td>
</tr>
<tr>
<td>Group E</td>
<td>P (Sharma)</td>
<td>U (2)</td>
<td>X (Ahuja)</td>
<td>Y (1)</td>
</tr>
</tbody>
</table>

13. B
X is from the same family as W.
14. B
Both Z and P are from Sharma family
15. D
16. D
We can determine that O, W and X are from Ahuja family and P, R and Z are from Sharma family.

<table>
<thead>
<tr>
<th></th>
<th>AXELSON</th>
<th>LEE CHONG</th>
<th>CHEN</th>
<th>DAN</th>
<th>KIDAMBI</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>X</td>
<td>Y</td>
<td></td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

Given that in any competition, Axelson did not get the first rank, Lee Chong did not get the second rank, Chen did not get the third rank, Dan did not get the fourth rank and Elgar did not get the fifth rank. Therefore, Dan’s rank must be 1, 3 and 5.
As X is less than or equal to Y, if Lee Chong’s ranks are 3, 4, 5 then Chen’s ranks must be 3, 4, 5, which is not possible as Chen cannot get the third rank.
Therefore, Lee Chong’s ranks cannot be 3, 4 and 5. This implies that Lee Chong got the first rank in one of the subjects.
As it cannot be competitions B or C, Lee Chong got the first rank in competition A. Therefore, Dan got the first rank in competition B. This implies that Chens’s ranks are 2, 4 and 5 and he got the second rank in competition C, since Axelson, Lee Chong, Dan and Kidambi cannot get the second rank in competition C.

Now, Chen or Kidambi secured the fourth rank in competition A. If Chen got the fourth rank in competition A, this means he got fifth rank in competition B. Therefore, Kidambi got the third rank and Dan got the fifth rank in competition A. Therefore, Dan got the third rank in competition B and Axelson got the fourth rank in competition C. Therefore, in competition C, Axelson got the fifth rank and Lee Chong got the fourth rank.

Now, if Kidambi got the fourth rank in competition B.

Therefore, Chen got the fifth rank in competition A and the fourth rank in competition B.
This implies that Dan got the third rank in competition A and the fifth rank in competition C.
Therefore, in competition B, Axelson got the fifth rank and Kidambi got the second rank.

This implies in competition C, Axelson got the third rank and Lee Chong got the fourth rank.

<table>
<thead>
<tr>
<th></th>
<th>AXELSON</th>
<th>LEECHONG</th>
<th>CHEN</th>
<th>DAN</th>
<th>KIDAMBI</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2</td>
<td>1</td>
<td>5/4</td>
<td>3/5</td>
<td>4/3</td>
</tr>
<tr>
<td>B</td>
<td>5/4</td>
<td>3</td>
<td>4/5</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>C</td>
<td>3/5</td>
<td>4</td>
<td>2</td>
<td>5/3</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>10/11</td>
<td>8</td>
<td>11</td>
<td>9</td>
<td>7/6</td>
</tr>
</tbody>
</table>

17. D. cannot be determined
18. B.2
19. A.1
20. C. both of the above

21-24

We know that E2 and E3 are males. Consider suggestion made by A: E2 and E3 be males. Therefore, E7 and E8 will be females. From the suggestion made by E: E1 and E6 will be males. From the suggestion made by C: E5 will be female. From the suggestion made by B: E4 will be male. Since, from the suggestion made by E, E1 and E6 are not married to E7, E8, we can have the following sub cases:

1. (E6, E5); (E4, E8) and (E2, E7) are couples.
2. (E4, E5); (E3, E7) are couples.
3. (E4, E8); (E3, E5) and (E2, E7) are couples.
4. (E4, E8); (E3, E7) and (E2, E5) are couples.
5. (E4, E5); (E3, E7) and (E2, E8) are couples. But then couples suggested by director A would be 2.
Hence, this case is ruled out.
21. A..E2 and E8
22. A..E4 and E8
23. D.. E1
24. B..E6S

25-28

25.[3]
If we consider statement 4, we can conclude that children from Nursery and KG have chosen only Beyblade.
Therefore, statements I, II and IV must be true.
However, it is possible for a child from UKG to have chosen beyblade but not Pokemon.
Thus statement III is not necessarily true.
Therefore, the required answer is 3.

26. C. Exactly four children have chosen Beyblade
Since all the girls are from KG, children from Nursery and UKG must be boys.
From, 2, 3 and 4 we can conclude that there are 3 children from UKG and 1 child from Nursery.
Also, the number of children that chose only Beyblade = 8 – 3
(i.e., the number of children from UKG) = 5
Thus, statement [3] is incorrect.
Hence, [3].

27.B.5
From, 2, 3 and 4 we can conclude that there are at least 3 children from UKG
One of the children must be from KG as there is at least one girl, and the remaining four children must be from Nursery.
One of the three children (all boys) from UKG has chosen Beyblade.

All the children from Nursery have chosen Beyblade and we will not count the child from KG as the child is a female child. Hence, five boys have chosen Beyblade.

28.[2]
If children from Nursery > children from UKG > children from KG, the number of children from Nursery = 4, the number of children from UKG = 3 and the number of children from KG = 2.
Since all the girls are from KG, the maximum possible number of girls = 2.
Therefore, the required answer is 2.

29-32
From (4): Jenny had 6 coins before and after the game.
From (2): Emily got either 4 or 8 coins before the game.

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
From (3): Exactly one of them got number of coins equal to number of letters in his/her name from grandmother. This could not be Axl (3-letter name; as she lost 4 coins in the game.) This could not be Madison and Theodore (7-letter name since Madison and Theodore got consecutive number of coins in same order, if Madison got 7 coins then Theodore (8-letters name) would have got 8 coins. This could not be Jaden (from (9)). This could not be Emily (from (2)). This could not be Eleanor (7-letters name) from (7). So it has to be Liam (4-letters name.) Liam definitely got 4 coins from grandmother. Now Emily definitely got 8 coins. And after the game she had either 5 or 7 coins.

From (5): Axl got 5 coins from grandmother.

Eleanor, Theodore and Madison could not get 7 coins from grandmother, so Jaden got 7 coins from grandmother.

After the game, Jaden, Eleanor and Liam could not get 2 or 3 coins, thus Madison and Theodore got 2 and 3 coins respectively after the game. It means Eleanor got 3 coins from her grandmother. After the game, Liam could not get 8 coins, so Eleanor got 8 coins after the game.

<table>
<thead>
<tr>
<th>No of rings</th>
<th>Grandmother’s distribution</th>
<th>After game distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Madison</td>
<td>Axl</td>
</tr>
<tr>
<td>2</td>
<td>Theodore</td>
<td>Madison</td>
</tr>
<tr>
<td>3</td>
<td>Eleanor</td>
<td>Theodore</td>
</tr>
<tr>
<td>4</td>
<td>Liam</td>
<td>Jaden</td>
</tr>
<tr>
<td>5</td>
<td>Axl</td>
<td>Liam/Emily</td>
</tr>
<tr>
<td>6</td>
<td>Jenny</td>
<td>Jenny</td>
</tr>
<tr>
<td>7</td>
<td>Jaden</td>
<td>Liam/Emily</td>
</tr>
<tr>
<td>8</td>
<td>Emily</td>
<td>Eleanor</td>
</tr>
</tbody>
</table>

29. B. Madison

30. D. cannot be determined

31. [3]

Madison, Theodore and Liam gained exactly one coin.

32. [3]
Based on condition 4, two possibilities arise for paths originating from L₄: either L₄-F₃ for L₄-F₅

Adding condition 2 to the above cases, we get two possibilities.

Adding condition 1, we again get two possibilities.

33. A. F₁
34. C. L₃
35. A. F₂ and F₄
36. D. L₂-F₅ and L₅-F₂
For a selected seat by a member of the North region, the table below shows various options of chair for another member of the region.

<table>
<thead>
<tr>
<th>Selected Chair</th>
<th>Options</th>
<th>Selected Chair</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>C3, C4, C9</td>
<td>C6</td>
<td>C4, C8, C9</td>
</tr>
<tr>
<td>C2</td>
<td>C5, C7</td>
<td>C7</td>
<td>C2, C5</td>
</tr>
<tr>
<td>C3</td>
<td>C1, C9</td>
<td>C8</td>
<td>C4, C6</td>
</tr>
<tr>
<td>C4</td>
<td>C1, C6, C8</td>
<td>C9</td>
<td>C1, C3, C5, C6</td>
</tr>
<tr>
<td>C5</td>
<td>C2, C7, C9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Further, if the selected chairs are C1 and C4, options available should be common to C1 and C4. (C3, C4, C9) and (C1, C6, C8) do not have a common option. So, this case is not valid.

If the selected chairs are C1 and C3, options available should be common to C1 and C3. (C3, C4, C9) and (C1, C9) have a common option C9.

So, one of the valid case is C1, C3 and C9.

Thus, the different possibilities (with respect to chairs chosen by sales heads of states lying under North) are as follows:

Case A: C1, C3 and C9
Case B: C2, C5 and C7
Case C: C4, C6 and C8

37. B.3
38. D. none of these

As we can see that all the 9 chairs could have possibly chosen by the sales head of a state lying under the region north

39. A. C2
If C5 was chosen, the remaining chairs must be C2 and C7.

40. C. If C5 was chosen by the sales head of Uttarakhand, then C2 was chosen by the sales head of Uttar Pradesh.

If C6 was chosen, the remaining chairs must be C4 and C8, from Case C.
If C9 was chosen, the remaining chairs must be C1 and C3, from Case A.
If C5 was chosen, the remaining chairs must be C2 and C7, from Case B.
D was not selected by people of Hyderabad and New Delhi. People of Hyderabad selected 3 different candidates. If people of New Delhi have also selected 3 candidates, the combination of candidates made by people of New Delhi and Hyderabad will be same, which will violate condition (1). Therefore people of New Delhi selected 2 candidates. Therefore, the people of Chennai, Kolkata and New Delhi selected 2 candidates while the people of other cities selected 3 candidates.

So far we have,

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Delhi</td>
<td>NO</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kolkata</td>
<td></td>
<td>NO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chennai</td>
<td></td>
<td></td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mumbai</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>&gt;50%</td>
<td></td>
</tr>
<tr>
<td>Bangalore</td>
<td>YES</td>
<td>&gt;50%</td>
<td>NO</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Hyderabad</td>
<td>YES</td>
<td>&gt;50%</td>
<td>YES</td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>Pune</td>
<td>&gt;50%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>More than 50%</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>7</td>
</tr>
</tbody>
</table>

From condition (2), C was selected by more than 50% people in two of the three cities out of New Delhi, Kolkata and Chennai. So far we have accounted for both the cities in which Q was selected by more than 50% people. Therefore, B was not selected by more than 50% people in New Delhi, Kolkata or Chennai. Therefore from condition (8), A and C were selected by more than 50% people in one of New Delhi and Kolkata.

Therefore C was selected by more than 50% people in Chennai.

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
<table>
<thead>
<tr>
<th>Choice</th>
<th>New Delhi</th>
<th>Kolkata</th>
<th>Chennai</th>
<th>Mumbai</th>
<th>Bangalore</th>
<th>Hyderabad</th>
<th>Pune</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>B</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>NO</td>
<td>&gt;50%</td>
<td>NO</td>
<td>&gt;50%</td>
<td>5</td>
</tr>
<tr>
<td>C</td>
<td>NO</td>
<td>-</td>
<td>-</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>5</td>
</tr>
<tr>
<td>D</td>
<td>-</td>
<td>NO</td>
<td>&gt;50%</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>5</td>
</tr>
<tr>
<td>Choice</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>18</td>
</tr>
</tbody>
</table>

More than 50%: 7

Now, we have yet to account for the city in which C was selected by more than 50% people.
Let’s evaluate the following two cases:

1. C was chosen by more than 50% people in Kolkata.
2. C was chosen by more than 50% people in New Delhi.

CASE 1:

<table>
<thead>
<tr>
<th>Choice</th>
<th>New Delhi</th>
<th>Kolkata</th>
<th>Chennai</th>
<th>Mumbai</th>
<th>Bangalore</th>
<th>Hyderabad</th>
<th>Pune</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>&gt;50%</td>
<td>YES</td>
<td>&gt;50%</td>
<td>NO</td>
<td>&gt;50%</td>
<td>YES</td>
<td>NO</td>
<td>5</td>
</tr>
<tr>
<td>B</td>
<td>NO</td>
<td>NO</td>
<td>&gt;50%</td>
<td>&gt;50%</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>5</td>
</tr>
<tr>
<td>C</td>
<td>NO</td>
<td>&gt;50%</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>5</td>
</tr>
<tr>
<td>D</td>
<td>-</td>
<td>-</td>
<td>NO</td>
<td>&gt;50%</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>5</td>
</tr>
<tr>
<td>Choice</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>18</td>
</tr>
</tbody>
</table>

More than 50%: 7

Give the best mocks for CAT and OMETS: [https://catking.in/product/all-mocks/]
CASE 2:

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Delhi</td>
<td></td>
<td>&gt;50%</td>
<td>NO</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Kolkata</td>
<td>&gt;50%</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>2</td>
</tr>
<tr>
<td>Chennai</td>
<td></td>
<td></td>
<td>&gt;50%</td>
<td>NO</td>
<td>2</td>
</tr>
<tr>
<td>Mumbai</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>&gt;50%</td>
<td>3</td>
</tr>
<tr>
<td>Bangalore</td>
<td>YES</td>
<td>&gt;50%</td>
<td>NO</td>
<td>YES</td>
<td>3</td>
</tr>
<tr>
<td>Hyderabad</td>
<td>YES</td>
<td>&gt;50%</td>
<td>YES</td>
<td>NO</td>
<td>3</td>
</tr>
<tr>
<td>Pune</td>
<td>&gt;50%</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>More than</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>50%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

41. D. More than one of the above.

It can be seen that C could have been chosen by more than 50% people of either New Delhi or Kolkata.

42. [4]

It can be seen that the candidates selected by the people of Mumbai, Bangalore, Hyderabad and Pune can be uniquely determined. However, we cannot determine the candidates who are selected by the people of New Delhi, Kolkata and Chennai.

Therefore, the required answer is 4.

43. C. either A or B

More than 50% people of Chennai selected C. But the other choice is either A or B.

44. [3]

One or more persons of Mumbai, Pune and Bangalore chose S. Therefore, the required answer is 3.

45-48

From the first condition, we can deduce that Italy played its morning matches on Monday and Saturday. Therefore, Netherlands played against Colombia on Thursday morning and Italy played against them on Tuesday evening. Since, Colombia played on Tuesday evening; it did not play on Wednesday. So, Netherlands played on Wednesday morning and Colombia play on Friday morning.

From condition 3, Spain won on Friday evening, which means they did not play on Saturday. Also, Italy lost on Saturday morning, it must be against France since Kenya lost all their matches. France

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
played Friday and Saturday morning. France and Spain played on Friday, so they cannot play Thursday evening, hence, it must be Kenya and Italy. Spain and France played each other on Wednesday evening.

The remaining slots and the final schedule is as below.

<table>
<thead>
<tr>
<th>Day</th>
<th>Morning</th>
<th>Evening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>Spain vs. Italy</td>
<td>France vs. Netherlands</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Spain vs. Kenya</td>
<td>Colombia vs. Italy</td>
</tr>
<tr>
<td>Wednesday</td>
<td>Kenya vs. Netherlands</td>
<td>Spain vs. France</td>
</tr>
<tr>
<td>Thursday</td>
<td>Colombia vs. Netherlands</td>
<td>Kenya vs. Italy</td>
</tr>
<tr>
<td>Friday</td>
<td>Colombia vs. France</td>
<td>Spain vs. Netherlands</td>
</tr>
<tr>
<td>Saturday</td>
<td>France vs. Italy</td>
<td>Colombia vs. Kenya</td>
</tr>
</tbody>
</table>

Colombia won all their matches and Kenya loses all their matches. France won against Italy on Saturday morning and Spain won against Netherlands on Friday evening. Based on these results, the table looks as follows:

<table>
<thead>
<tr>
<th>Teams</th>
<th>MP</th>
<th>W</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>France</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Italy</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Spain</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Netherlands</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Kenya</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

The outcomes of Italy vs. Spain, France vs. Netherlands and France vs. Spain is not known to us. From the table, we see that Spain won against Netherlands on Friday Evening.

45. A. Netherlands
46. D.4
47. B. France

<table>
<thead>
<tr>
<th>Teams</th>
<th>MP</th>
<th>W</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>France</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Italy</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Spain</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Netherlands</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Kenya</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

48. B. Spain

<table>
<thead>
<tr>
<th>Teams</th>
<th>MP</th>
<th>W</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>France</td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Italy</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Spain</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Netherlands</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Kenya</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

49. A. Colombia

50. C. France and Italy

51-54

From (1) and (3) the two people sitting diametrically opposite must be Darrius and Dolores. From (2), either (Andrew and Adrian) or (Benjamin and Blake) are seated on David’s sides. If Benjamin and Blake are on David’s sides, it will violate condition (4). Therefore, Adrian and Andrew are on David’s sides in no specific order.
The seating arrangement is as follows:
If position of Blake is fixed, positions of Aaron, Blake, Berry and David can be uniquely determined.

51. [4]
52. D. cannot be determined
53. C. David

Exactly four punters correctly predicted the three of the four Round I losers.

54. [180]
55-58

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
The table has 3 Round I Losers as predicted by punters. We need to locate four punters who could have made the right prediction.

First try to locate four punters with identical predictions for the three Round I losers. There are no such four punters.

Next, look for the punters with two common Round I Losers. Each of the four teams D, E, A and H appear three times in the Round I losers predictions made by punters II, V, VII and X. The number of ways in which 3 teams can be chosen out of 4 teams is \(^4C_3 = 4\).

Therefore, the four teams that are Round I Losers are D, E, A and H. No other combination is a possibility.

Given that exactly three punters correctly predicted the Round II losers. Punter II, VI, VIII, IX and X cannot be these three punters as their predictions for Round II losers include one or more Round I losers. Therefore, three punters out of I, III, IV, V and VII may have predicted the Round II Losers correctly.

Out of these, Punters V and VII correctly predicted the three round I losers as well. Therefore the punter who correctly predicted the Champion, two of the three Round II Losers as well as three of the four Round III Losers could be either V or VII or either F or B is the champion.

Possibility 1: F is the Champion, B, C and H are Round II losers and punters III, V and VII correctly predicted two of three Round II losers.
Possibility 2: B is the Champion. C, H and F are Round II losers and punters I, IV and VII correctly predicted two of three Round II losers.

55.[8]
Except for V and VII, it can be definitely concluded that the remaining 8 punters are not the punter who correctly predicted the Champion, two of the three Round II losers as well as three of the four Round I losers.

56.[4]
Punter I correctly predicted only G, Punter IV correctly predicted only E, Punter VI correctly predicted only G and Punter VIII correctly predicted only D.
Therefore, the required answer is 4.

57.C.C
G and C are definitely Round II losers.

58.D.G
Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
Since players from Australia and Netherlands won only US open championships, number of US open championships won by them = 1. Similarly, since players from Brazil won only Australian open championships, both wins by players from Brazil are from Australian open championships.

Every year four championships were held. Therefore there were total 40 winners over 10 years period. Information on total 31 winners has been given in the table. Remaining 9 winners are from Spain and Russia.

From (4)

Numbers of winners from Spain = 6 and number of winners from Russia = 3.

From (5)

Players from Spain won two championships each in Australian open, French open and Wimbledon. Similarly players from Russia won one championship each in Australian open, French open and Wimbledon.

From (6)

Players from Germany won total 6 championships

Number of Wimbledon wins = 3, Number of French open wins = 2 and number of US open wins = 1

Note that players from Germany have won at least one championship of each type. If number of championships won by players from Germany is zero, it would violate statement (2) that each championship was won by players from exactly five different countries. Therefore Wimbledon: 3, French open: 2 and US open: 1 is the only possible solution

From (3)

Suppose number of Australian open championships won by players from Sweden = Number of French open championships won by players from USA = Number of Wimbledon championships won by players from USA = a.

Since there are 10 championships of each type,

Number of Australian open championships won by players from USA = 5 – a

Number of French open championships won by players from Sweden = 5 – a

Number of Wimbledon championships won by players from Sweden = 4 – a

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
\ Number of US open championships won by players from USA = 13 – (5 – a) – a – a
= 8 – a & Number of US open championships won by players from Sweden = 8 – a – (5 – a) – (4 – a) = a – 1

We have the following

<table>
<thead>
<tr>
<th></th>
<th>Australian open</th>
<th>French open</th>
<th>Wimbledon</th>
<th>US open</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Sweden</td>
<td>a</td>
<td>5 – a</td>
<td>4 – a</td>
<td>a - 1</td>
<td>8</td>
</tr>
<tr>
<td>USA</td>
<td>5 – a</td>
<td>a</td>
<td>a</td>
<td>8 - a</td>
<td>13</td>
</tr>
<tr>
<td>Russia</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Brazil</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Germany</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Australia</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

59. D
Option 1: 5 – a = a a = 2.5. a has to be a natural number hence cannot be true.
Option 2: 5 – a = 4 – a. cannot be true
Option 3: 5 – a = 8 – a. cannot be true

60. C
Number of US open championships won by players from USA = 8 – a
Number of Wimbledon championships won by players from Sweden = 4 – a
\[ 1 < a < 4 \text{ (a is 4, a 0 or 1 as it would violate condition (2))} \]
\[ \text{Number of US open championships won by players from USA = 5 or 6.} \]

61. A
From solution to previous question, it can be seen that a = 2 or 3.
Option 1: If a = 2, players from Spain, Brazil and Sweden won 2 Australian option championships each.
If a = 3, players from Spain, Brazil and USA won 2 Australian open championship each.
Option 2: If a = 2, players from Spain, Sweden and USA won 2 Wimbledon championships each.
Option 3: Number of French open championships won by players from Sweden = 5 – a
\[ \text{Number of US open championships won by players from USA = 8 – a} \]
\[ \text{Required sum = 13 – 2a.} \]
If the required sum = 6, a = 3.5, which is not possible

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
Option 4: Number of Australian open championships won by players from Sweden = a
Number of French open championships won by players from USA = a.
∴ Required sum = 2a. If a = 2, 2a = 4.

62.B
5 – a = a – 1
a = 3
Number of French open championships won by the players from USA = a = 3.

63-66

From statement 2, 3, 4 and 6; Reena and Shyamlal do not work in Repose Housing Society, Tranquility Housing Society and Peace Housing Society. Therefore from statement 9, Reena and Shyamlal work in Serenity and Placidity housing societies in some order.

From statement 2 and 8, Shyamlal earns Rs. 8,000 per month. Therefore from statement 4, 7 and 8; Pannalal’s salary must be Rs. 5,000 per month.

From statement 3 and 8, Reena earns Rs. 3,000 and hence Ramlal earns Rs. 4,000.

<table>
<thead>
<tr>
<th>Maid</th>
<th>No. of hours</th>
<th>Society</th>
<th>Salary wise ranking (from highest to lowest – 5 to 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pragya</td>
<td>5 hours</td>
<td>Tranquility/Peace</td>
<td>3 (5,000)</td>
</tr>
<tr>
<td>Janki</td>
<td>4 hours</td>
<td>Tranquility/Peace</td>
<td>4 (4,000)</td>
</tr>
<tr>
<td>Gourav</td>
<td>8 hours</td>
<td>Serenity/Placidity</td>
<td>1 (8,000)</td>
</tr>
<tr>
<td>Rajesh</td>
<td>3 hours</td>
<td>Serenity/Placidity</td>
<td>5 (3,000)</td>
</tr>
<tr>
<td>Abhishek</td>
<td>6 hours</td>
<td>Repose</td>
<td>2 (6,000)</td>
</tr>
</tbody>
</table>

63.C
Shyamlal works either in Serenity or Placidity Society.

64.A
Ramlal works in Janki’s house.

65.[5000]

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
66. Pannalal (Salary Rs. 5,000) and Ramlal (Rs. 4,000) work in Tranquility and Peace Housing Societies. The difference in their salaries is Rs. 1,000.

67-69

67.D. Clearly since each pipeline can have maximum of 1000. So, here we have put the values according to demand of the places.

68.D. BASE – D = 700 So, free capacity = 1000 – 700 = 300

69.D. BASE – D = 1000 Free capacity = 0

70-73
70. A. 105

71. B. 60km north-east of the starting point

72. C. 35.5km south-west

73. B. 60km south-west of the starting point

74-76

77-80

<table>
<thead>
<tr>
<th>Colour</th>
<th>Winner (1st)</th>
<th>Runner (2nd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sitting arrangement</td>
<td>A</td>
<td>W</td>
</tr>
</tbody>
</table>

77. B. Ms. Wisconsin

78. C. Ms. Alaska and Ms. Utah

79. A. Yellow

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
80. C. Ms. Utah

81-84

Using the facts given:

<table>
<thead>
<tr>
<th></th>
<th>PANCAKES</th>
<th>WAFFLES</th>
<th>MAPLE SYRUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>IASIAH</td>
<td>6</td>
<td>6</td>
<td>YES</td>
</tr>
<tr>
<td>SAM</td>
<td>1</td>
<td>0</td>
<td>NO</td>
</tr>
<tr>
<td>DAMIAN</td>
<td>5</td>
<td>1</td>
<td>YES</td>
</tr>
<tr>
<td>MASON</td>
<td>4</td>
<td>2</td>
<td>NO</td>
</tr>
<tr>
<td>BUFORD</td>
<td>8</td>
<td>4</td>
<td>NO</td>
</tr>
</tbody>
</table>

81. C. The person who eats equal numbers of waffles and pancakes also takes maple syrup

82. D. Buford eats 4 waffles

83. A. Damian eats 5 pancakes

84. B. Sam

85-88

The order of events as given in the problem can be written as:
A (e); B (e); C (e); D (l); E (l); F(e); A(l) D(l); D(e2); E (l); G (e); G (l); F (l); D (l)
where e shows entered, l shows left and e2 show entered 2nd time.

85. B. D
So, D entered before F

86. C.
D was sitting with A, when F entered

87. B.
3 members whom E met were A, D and F

88. D.
F and D were the last to leave
89-92

<table>
<thead>
<tr>
<th>Name</th>
<th>Score</th>
<th>Source</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASHA</td>
<td>2432</td>
<td>i</td>
<td></td>
</tr>
<tr>
<td>CLAIRE</td>
<td>1391</td>
<td>vi and i</td>
<td></td>
</tr>
<tr>
<td>DISHA</td>
<td>2715</td>
<td>v</td>
<td></td>
</tr>
<tr>
<td>HINA</td>
<td>1837</td>
<td>ii</td>
<td></td>
</tr>
<tr>
<td>ELAINE</td>
<td>3028</td>
<td>vi and vii</td>
<td></td>
</tr>
<tr>
<td>SANA</td>
<td>3228</td>
<td>iii</td>
<td></td>
</tr>
</tbody>
</table>

89. C. Asha and Claire

90. D. Disha

91. B.4

92. A. Elaine and Asha

93-96

93.C
A and D have no blank answers, so, they may have only one source C has copied from 1 source only (as there are 2 wrong answers). B has copied from 2 sources as there is only 1 wrong answer (which has been done by himself) and rest blank answers (which have not matched in the 2 sources)

94.C.
C has 2 wrong answers and 3 blank answers. This means one wrong answer has been done by himself and the other from the source, say S, from where he copied. 3 blank answer mean that they were present in S’s answer key too. This means S has got it from two sources – S2, one with one wrong answer and the other S3, with 2 wrong answers. The one haveing 1 wrong answer could have got it from the master mind but the other one has to get it from a single source S1, (who has got it from MM) with one wrong answer. So, 4 people before him

95.D.
If G and H would be sources to some one than he should have 33, 54 and 100 as blanks which is not there in any case

96.C.
A  False, as 33 was introduced by I

B False, as 54 was introduced by A

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
The qualities of two persons are compared using the sum of difference of points given to each quality, e.g., the constraint level of Mr. Joshi and Mr. Patil is 
\[(9 - 6) + (7 - 6) + (9 - 8) + (5 - 3) + (5 - 4)\]
\[= 3 + 1 + 1 + 2 + 1 = 8\]
Similarly, calculating for all other pairs of employees,

<table>
<thead>
<tr>
<th>Mr. Joshi</th>
<th>Mr. Patil</th>
<th>Mr. Kulkarni</th>
<th>Mr. Yadav</th>
<th>Mr. Desai</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td></td>
<td>14</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>17</td>
<td>16</td>
<td>14</td>
</tr>
</tbody>
</table>

97.A
98.D
99.D
100.C
101-104

<table>
<thead>
<tr>
<th>Family</th>
<th>Husband</th>
<th>Wife</th>
<th>Kid</th>
<th>Kid in marriage</th>
<th>Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Samuel</td>
<td>Rochelle</td>
<td>0</td>
<td>0</td>
<td>3rd</td>
</tr>
<tr>
<td>2</td>
<td>Rician</td>
<td>Joyce</td>
<td>2</td>
<td>1</td>
<td>2nd</td>
</tr>
<tr>
<td>3</td>
<td>Anthony</td>
<td>Annette</td>
<td>1</td>
<td>1</td>
<td>1st</td>
</tr>
<tr>
<td>4</td>
<td>Roger</td>
<td>Samantha</td>
<td>1</td>
<td>1</td>
<td>4th</td>
</tr>
</tbody>
</table>

101.A
Table shows that Rochelle was the third one to arrive.

102.B
Roger and Samantha

103.C
Samantha and Annette, so, Roger and Anthony

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
104. B.
Rician has two kids.

105-108

<table>
<thead>
<tr>
<th>Initial</th>
<th>End of Round 1</th>
<th>End of Round 2</th>
<th>End of Round 3</th>
<th>End of Round 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asmita</td>
<td>Asmita</td>
<td>Asmita</td>
<td>Asmita</td>
<td>Asmita</td>
</tr>
<tr>
<td>Bindiya</td>
<td>Harsha</td>
<td>Esha</td>
<td>Cheryll</td>
<td>Bindiya</td>
</tr>
<tr>
<td>Cheryll</td>
<td>Bindiya</td>
<td>Harsha</td>
<td>Esha</td>
<td>Cheryll</td>
</tr>
<tr>
<td>Dipti</td>
<td>Gauri</td>
<td>Dipti</td>
<td>Gauri</td>
<td>Dipti</td>
</tr>
<tr>
<td>Esha</td>
<td>Cheryll</td>
<td>Bindiya</td>
<td>Harsha</td>
<td>Esha</td>
</tr>
<tr>
<td>Fatima</td>
<td>Fatima</td>
<td>Fatima</td>
<td>Fatima</td>
<td>Fatima</td>
</tr>
<tr>
<td>Gauri</td>
<td>Dipti</td>
<td>Gauri</td>
<td>Dipti</td>
<td>Gauri</td>
</tr>
<tr>
<td>Harsha</td>
<td>Esha</td>
<td>Cheryll</td>
<td>Bindiya</td>
<td>Harsha</td>
</tr>
</tbody>
</table>

105. [4]

106. [8]

107. [2]

108. [3]

<table>
<thead>
<tr>
<th>Initial</th>
<th>End of Round 1</th>
<th>End of Round 2</th>
<th>End of Round 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>B</td>
<td>D</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>C</td>
<td>B</td>
<td>D</td>
<td>C</td>
</tr>
<tr>
<td>D</td>
<td>C</td>
<td>B</td>
<td>D</td>
</tr>
</tbody>
</table>

109-112
109. A.
No. of Labour experts from the Americas = 1
No. of health experts from the Europe = 1
No. of health experts from the Australasia = 1
No. of Refugee relocation from the Africa can not be found.

110. D.
Clearly from the table option (d) is not possible as no. of expert in Africa and America has to be 6 – 3 = 3.

111. C
American expert in population studies the above table becomes

<table>
<thead>
<tr>
<th>Continent</th>
<th>Labour</th>
<th>Health</th>
<th>PS</th>
<th>Refugee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>0</td>
<td>≥1</td>
<td>≥1</td>
<td>≥1</td>
</tr>
<tr>
<td>America</td>
<td>1</td>
<td>≥1</td>
<td>≥1</td>
<td>≥1</td>
</tr>
<tr>
<td>Australasia</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Europe</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

\[
x + 2x + 2x + 2x = 21 = 7x \\
\Rightarrow x = 3 \\
y + 2y + y + 1 + y = 21 = 5y + 1 \\
\Rightarrow y = 4
\]

112. C
From the top table it is clear that the Refugee relocation experts in America can be at the most 3. So both (i) and (ii) are correct.

113-116

113.A
Let \( r \) and \( w \) be the number of questions attempted correctly and incorrectly by Vishal.

\[
\therefore r + w = 10 \quad \text{and} \quad r - 0.25w = 3.75
\]

\[
\therefore 1.25w = 6.25
\]

\[
\therefore w = 5 \quad \text{and} \quad r = 5
\]

Working in a similar manner,

Vishal: Right = 5, Wrong = 5
Paresh: Right = 5, Wrong = 5
Dinesh: Right = 8, Wrong = 2
Advait: Right = 4, Wrong = 6

By conditions, all the four could have attempted Q.2 or Q.10 incorrectly.

Dinesh attempted Q.10 incorrectly. He would have attempted only one more question incorrectly. If he attempts Q.1 incorrectly, all his other answers would be right. In this case, Paresh would have a maximum of 4 answers wrong which is not correct ⇒ Dinesh attempted Q.1 correctly. \( \therefore \) The correct answer option for Q.1 is 1.

114.A

By conditions, all the four could have attempted Q.2 or Q.10 incorrectly.

From the given conditions, other than Q.10, there is no other question where all four have gone wrong.

\( \therefore \) If option 2 is the right answer to any question, at least one of the four would have marked it right. There are only two such questions i.e., Q.5 and Q.7.

If Dinesh marks Q.5 wrongly, Paresh would have a maximum of only 3 questions wrong which is not possible

\( \Rightarrow \) Option 2 is the right answer for Q.5.

If Dinesh marks Q.7 wrongly, Vishal would have a maximum of only 3 questions wrong which is not possible \( \Rightarrow \) Dinesh marks Q.7 correctly = Option 3 is the correct answer to Q.7.

\( \therefore \) Option 2 is the right answer for question 5 only.

115.C
Let \( r \) and \( w \) be the number of questions attempted correctly and incorrectly by Vishal.

\[
\begin{align*}
\therefore r + w &= 10 \quad \text{and} \quad r - 0.25w &= 3.75 \\
\therefore 1.25w &= 6.25 \\
\therefore w &= 5 \quad \text{and} \quad r = 5
\end{align*}
\]

Working in a similar manner,
Visshal : Right = 5, Wrong = 5
Paresh : Right = 5, Wrong = 5
Dinesh : Right = 8, Wrong = 2
Advait : Right = 4, Wrong = 6

By conditions, all the four could have attempted Q.2 or Q.10 incorrectly.

All of them attempt Q.2 incorrectly and hence Q.10 correctly.

Dinesh got only two questions wrong, out of which Q.2 is one. The other can be any one of the other eight. If he got Q.1 wrong then, all his other answers would be correct which implies that Paresh got a maximum of 4 answers incorrect, which is not correct

\( \Rightarrow \) Dinesh attempted Q.1 correctly.

Checking in a similar manner for all questions from 3 to 9, we find that Dinesh got either Q.8 incorrect or Q.9 incorrect along with Q.2.

Thus, Dinesh definitely attempted questions 1, 3, 4, 5, 6, 7 and 10 correctly.

Option 3 is definitely the right answer only for Q.3, Q.7 and Q.10. Hence, [3].

116.C

Let \( r \) and \( w \) be the number of questions attempted correctly and incorrectly by Vishal.

\[
\begin{align*}
\therefore r + w &= 10 \quad \text{and} \quad r - 0.25w &= 3.75 \\
\therefore 1.25w &= 6.25 \\
\therefore w &= 5 \quad \text{and} \quad r = 5
\end{align*}
\]

Working in a similar manner,
Visshal : Right = 5, Wrong = 5
Paresh : Right = 5, Wrong = 5
Dinesh : Right = 8, Wrong = 2
Advait : Right = 4, Wrong = 6

By conditions, all the four could have attempted Q.2 or Q.10 incorrectly.

Advait got Q.3 right and Paresh got it incorrect. Paresh got Q.4 and Q.6 right and Advait got them incorrect. Also, only one of Advait and Paresh could be correct in Q.8 and Q.9. Thus, there are 5 such questions. Hence, [3].

117-120

117. D

Best done by elimination.
(a) If true, then NZ lost the second game by 5-1, which does not match.
(b) If Spain beats NZ by 4-0, then in the next game it should lose by 1-2
(c) If Spain beats SA by 2-0, then it should win the next game by 3-2, but it lost the other game. Only (d) is possible.
118.B
As above (a). If Pakistan has 2-1, it should draw the next game 0-0, which is not true. (b) is possible. (c) same as in the first choice.

119.D
The question is inconsistent. If Pakistan wins the last two rounds, and we are also told in (a) to (c) that Spain, Argentina, Germany and Pakistan won their fifth round matches. This is not possible, since there can be only three winners.

120.D
We can say nothing about the winner.

121-124
From the data given, we know that in the first round each team plays 5 matches, in the second round each team plays 5 matches and in the finals each team plays 2 matches.

Thus, if a team gets eliminated after the first round, it has played only 5 matches in all, if a team gets eliminated after the second round, it has played 10 matches in all and if a team reaches the finals, it plays 12 matches in all.

From the table, we can determine the number of matches played by each team in the tournament and hence the highest round they reach.

<table>
<thead>
<tr>
<th>Teams</th>
<th>Total</th>
<th>Average points</th>
<th>Number of matches played</th>
<th>Highest round reached</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>14</td>
<td>1.17</td>
<td>14/1.17 = 12</td>
<td>Finals</td>
</tr>
<tr>
<td>A2</td>
<td>0</td>
<td>0.00</td>
<td>5</td>
<td>First</td>
</tr>
<tr>
<td>A3</td>
<td>5</td>
<td>0.50</td>
<td>10</td>
<td>Second</td>
</tr>
<tr>
<td>A4</td>
<td>0</td>
<td>0.00</td>
<td>5</td>
<td>First</td>
</tr>
<tr>
<td>A5</td>
<td>8</td>
<td>0.80</td>
<td>10</td>
<td>Second</td>
</tr>
<tr>
<td>A6</td>
<td>3</td>
<td>0.60</td>
<td>5</td>
<td>First</td>
</tr>
<tr>
<td>B1</td>
<td>-3</td>
<td>-0.60</td>
<td>5</td>
<td>First</td>
</tr>
<tr>
<td>B2</td>
<td>13</td>
<td>1.08</td>
<td>12</td>
<td>Finals</td>
</tr>
<tr>
<td>B3</td>
<td>3</td>
<td>0.60</td>
<td>5</td>
<td>First</td>
</tr>
<tr>
<td>B4</td>
<td>6</td>
<td>0.60</td>
<td>10</td>
<td>Second</td>
</tr>
<tr>
<td>B5</td>
<td>2</td>
<td>0.40</td>
<td>5</td>
<td>First</td>
</tr>
<tr>
<td>B6</td>
<td>7</td>
<td>0.58</td>
<td>12</td>
<td>Finals</td>
</tr>
</tbody>
</table>

121.C

122.[2]
Andheri|Borivali|Powai|Mira Road|Pune|Online

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
Let $a$, $b$ and $c$ be the number of matches won, lost and drawn respectively by A2 in first round.

Then, $a + b + c = 5$ and $2a - b + c = 0$.

Adding these two equations, we get,

$3a + 2c = 5$, which holds only when $a = c = 1$.

Similarly, A4 won 1 match in the first round.

Thus, the total number of matches won by A2 and A4 in the first round is 2.

123.A

124.B

From the answer to previous question, we get the table for the second round as:

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Average points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>A5</td>
<td>8</td>
<td>0.8</td>
</tr>
<tr>
<td>A3</td>
<td>5</td>
<td>0.5</td>
</tr>
<tr>
<td>B2</td>
<td>12</td>
<td>1.2</td>
</tr>
<tr>
<td>B6</td>
<td>9</td>
<td>0.9</td>
</tr>
<tr>
<td>B4</td>
<td>6</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Thus, 1.2 are the highest average points after the second round. Hence, [2].

125-128

125.A. 30%
One of the companies with extraordinary results belongs to cement or IT industry (double return) stored and the other one belong to steel or auto industry (1.5 times return)

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Total</th>
<th>Avg. Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return</td>
<td>20</td>
<td>10</td>
<td>30</td>
<td>40</td>
<td>100</td>
<td>25%</td>
</tr>
<tr>
<td>For min. Return</td>
<td>30</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>120</td>
<td>30%</td>
</tr>
</tbody>
</table>

126.B. II and III only
<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Total</th>
<th>Avg. Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return</td>
<td>20</td>
<td>10</td>
<td>30</td>
<td>40</td>
<td>100</td>
<td>25%</td>
</tr>
<tr>
<td>Possibilities</td>
<td>30</td>
<td>10</td>
<td>60</td>
<td>40</td>
<td>140</td>
<td>35%</td>
</tr>
<tr>
<td>For 35% rttn.</td>
<td>40</td>
<td>10</td>
<td>30</td>
<td>60</td>
<td>140</td>
<td>35%</td>
</tr>
</tbody>
</table>

127. C. I and IV only

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Total</th>
<th>Avg. Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return</td>
<td>20</td>
<td>10</td>
<td>30</td>
<td>40</td>
<td>100</td>
<td>25%</td>
</tr>
<tr>
<td>For 38.75 rttn.</td>
<td>20</td>
<td>10</td>
<td>45</td>
<td>80</td>
<td>155</td>
<td>38.75%</td>
</tr>
</tbody>
</table>

128. B. II and IV only

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Total</th>
<th>Avg. Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return</td>
<td>20</td>
<td>10</td>
<td>30</td>
<td>40</td>
<td>100</td>
<td>25%</td>
</tr>
<tr>
<td>For max. rttn.</td>
<td>20</td>
<td>10</td>
<td>60</td>
<td>60</td>
<td>150</td>
<td>37.5%</td>
</tr>
<tr>
<td>For min. rttn.</td>
<td>20</td>
<td>15</td>
<td>60</td>
<td>40</td>
<td>135</td>
<td>33.75%</td>
</tr>
</tbody>
</table>

129-132

First row (left to right): \(\frac{101}{102}\) \(\frac{102}{103}\)

Second row (left to right): \(\frac{201}{202}\)

A and B are sitting in different rows. D and E are sitting together. Therefore D and E have to occupy the seats in the first row. Since the person to the right of E is not a member belonging to the group, E occupies seat 103. So, D is sitting on seat 102. A and C have the tickets with the same units digit. Therefore, they can have tickets numbered 101 and 201. Now, A has to be in the first row (as A and B cannot sit in the same row).

\[\therefore\] A has ticket 101 and C has 201.

First row (left to right): \(\frac{A}{101}\) \(\frac{D}{102}\) \(\frac{E}{103}\)

Second row (left to right): \(\frac{C}{201}\) \(\frac{B}{202}\)

129.C

130.D

Give the best mocks for CAT and OMETS: [https://catking.in/product/all-mocks/](https://catking.in/product/all-mocks/)
132.B

First row (left to right): 

\[
\begin{array}{ccc}
101 & 102 & 103 \\
\end{array}
\]

Second row (left to right): 

\[
\begin{array}{cc}
201 & 202 \\
\end{array}
\]

A and B are sitting in different rows. D and E are sitting together. Therefore D and E have to occupy the seats in the first row. Since the person to the right of E is not a member belonging to the group, E occupies seat 103. So, D is sitting on seat 102. A and C have the tickets with the same units digit. Therefore, they can have tickets numbered 101 and 201. Now, A has to be in the first row (as A and B cannot sit in the same row).

133. D. Members who voted for Berlin in round 1 but for Tokyo in round 2 = (9 X 100)/12 = 75%
134. B. Votes for Zurich in round 1 = 24

135. C. Voters who voted for Montreal in round 3 but voted for Tokyo in round 2 = \( \frac{8}{12} \times 100 = 66.67\% \)

(Note: 9 out of 21 members of Tokyo left)

136. A. Clearly the new member from Berlin voted for Zurich in round 2. Further the new member from Tokyo also voted for Zurich in round 3.

137-140

137. B
L is the second in the first event with 4 points. If he finishes first in the second and third events, with 10 and 5 points, he will have scored the maximum i.e., 19 points.

138. D.
Let the positions secured by M and N in the 2nd event be x and y respectively.

Since, Total score of M = Total score of N

\[ 3 + 2x = 1 + 2y \]

\[ y - x = 1 \] i.e. N and M must have secured consecutive places in the second event in that order.

139. A
The only way M could equal K is to finish first in the second event. So his score will be \( 3 + (2 \times 5) = 13 \).

140. C
If J finishes first in event 3, he will have 11 points, but even if K finishes in the last position and L finishes in the fourth position, J finishes below them. Hence, statement [1] is not possible. Even if L finishes in the first place and M finishes in the second place, K finishes in the second place in the total point standing. Hence statement [2] is not possible. L finishes third in total points if he finishes last in event 3, M finishes 1st and K finishes in any of the remaining positions. Hence, statement [3] is possible. M finishes first in event 3, he will have 14 points, but even if K finishes in the last position his total point standing would be 16. Hence, statement [4] is not possible.

141-145

141. A. Clearly the new member from Berlin voted for Zurich in round 2. Further the new member from Tokyo also voted for Zurich in round 3.
142.C. The opening price on day 1 was Rs 100. The closing price on day 5 was Rs 110. Carl sold 10 shares of MGM on 3 consecutive days and Mikel sold 10 shares only once during the 5 days. The possible trend of the closing price of MGM shares is:

<table>
<thead>
<tr>
<th>Day</th>
<th>Opening Price</th>
<th>Closing Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100</td>
<td>90</td>
</tr>
<tr>
<td>2</td>
<td>90</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>100</td>
<td>110</td>
</tr>
<tr>
<td>4</td>
<td>110</td>
<td>120</td>
</tr>
<tr>
<td>5</td>
<td>120</td>
<td>110</td>
</tr>
</tbody>
</table>

Carl sells; Mikel sells

So the closing price at the end of day 3 was Rs 110/-

143. A. Mikel ended up with 20 more shares than Carl at the end of day 5. The various possibilities in this situation for the given options are:

<table>
<thead>
<tr>
<th>Day</th>
<th>Option 1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>90/110</td>
<td>90/110</td>
<td>110</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>80/100</td>
<td>100/120</td>
<td>130</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>90</td>
<td>110</td>
<td>120</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>100</td>
<td>110</td>
<td>120</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>110</td>
<td>110</td>
<td>110</td>
<td>110</td>
<td></td>
</tr>
</tbody>
</table>

Shares gained by Carl
-10 +10 -10 -10 +10
-10 -10 +10 -10 +10
-10 -10 +10 -10 +10
-10 -10 +10 -10 +10
-10 -10 +10 -10 +10

Shares gained by Mikel
+10 -20 -20 -20 -20

So it is clear from the above table that Mikel had 20 more shares than Carl for option 1, where the closing prices were, 90, 80, 90, 100 and 110. So the price at the end of day 3 was Rs 90.
144. D. The maximum possible increase in combined cash balance of Carl and Mikel would be in the case when both Carl and Mikel sell their shares and that too at higher prices. Further for Mikel to sell his shares the price has to be above 110. This will be possible when the closing prices are: 110, 120, 130, 120 and 110.

<table>
<thead>
<tr>
<th>Day</th>
<th>Carl</th>
<th>Mikel</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>110</td>
<td>1100</td>
</tr>
<tr>
<td>2</td>
<td>120</td>
<td>1200</td>
</tr>
<tr>
<td>3</td>
<td>130</td>
<td>1300</td>
</tr>
<tr>
<td>4</td>
<td>120</td>
<td>1200</td>
</tr>
<tr>
<td>5</td>
<td>110</td>
<td>1100</td>
</tr>
<tr>
<td>Total</td>
<td>1300</td>
<td>3700</td>
</tr>
</tbody>
</table>

So total increase in combined cash balance = 1300 + 3700 = Rs 5000
145. B. The various possible cases of price variation are given below.

<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>IX</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>110</td>
<td>110</td>
<td>110</td>
<td>110</td>
<td>110</td>
<td>110</td>
</tr>
<tr>
<td>2</td>
<td>80</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>120</td>
<td>120</td>
<td>120</td>
<td>100</td>
<td>100</td>
<td>120</td>
</tr>
<tr>
<td>3</td>
<td>90</td>
<td>90</td>
<td>110</td>
<td>110</td>
<td>110</td>
<td>110</td>
<td>130</td>
<td>90</td>
<td>110</td>
<td>110</td>
</tr>
<tr>
<td>4</td>
<td>100</td>
<td>100</td>
<td>120</td>
<td>100</td>
<td>120</td>
<td>120</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>110</td>
<td>110</td>
<td>110</td>
<td>110</td>
<td>110</td>
<td>110</td>
<td>110</td>
<td>110</td>
<td>110</td>
<td>110</td>
</tr>
</tbody>
</table>

**Karen’s Transactions**

<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>IX</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-900</td>
<td>-900</td>
<td>-900</td>
<td>-900</td>
<td>1100</td>
<td>1100</td>
<td>1100</td>
<td>1100</td>
<td>1100</td>
<td>1100</td>
</tr>
<tr>
<td>2</td>
<td>-800</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>-1000</td>
<td>1200</td>
<td>1200</td>
<td>-1000</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>3</td>
<td>900</td>
<td>-900</td>
<td>1100</td>
<td>1100</td>
<td>1100</td>
<td>1100</td>
<td>1300</td>
<td>-900</td>
<td>1100</td>
<td>1100</td>
</tr>
<tr>
<td>4</td>
<td>1000</td>
<td>1000</td>
<td>1200</td>
<td>-1000</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>-1000</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>5</td>
<td>1100</td>
<td>1100</td>
<td>-1100</td>
<td>1100</td>
<td>-1100</td>
<td>-1100</td>
<td>-1100</td>
<td>-1100</td>
<td>1100</td>
<td>1100</td>
</tr>
</tbody>
</table>

**Mikel’s Transactions**

<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>IX</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>800</td>
<td>-</td>
<td>1200</td>
<td>-</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>-</td>
<td>-</td>
<td>1200</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1200</td>
<td>1200</td>
</tr>
</tbody>
</table>

**Carl - Mikel**

<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>IX</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2100</td>
<td>1300</td>
<td>100</td>
<td>1300</td>
<td>100</td>
<td>1100</td>
<td>2400</td>
<td>1300</td>
<td>1300</td>
<td>100</td>
</tr>
</tbody>
</table>

146-149

146.A

147.D
Banjo and harmonica are played by Karen and Jack respectively, Guitar can be played by Mark and Nancy can play either drums/guitar. Hence, the only thing that Louise can play is piano.

148.B
Option [2] is false as Karen can play only the banjo.

149.D
Mark can play either guitar /drums. Since Nancy plays the drums, Mark plays the guitar.

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
A is the mother of C and D, who are sisters.
D is G and H’s aunt and C has two nieces — one married
and one unmarried.
K, J and H, L are couples and since there are five couples
in the family, we get:

```
A =
  /
 /  \
/    \
C     D
  /
 /  \
/    \
H     G
  /
 /  \
/    \
K/J  J/K
```

E is the son-in-law of B, hence B is A’s husband and E is
the husband of C or D.
M is the granddaughter of C, hence must be H and L’s daughter.
As M and N are not siblings and N is the great-grandson
of A, N must be K and J’s son.
F, being married, is the husband of C or D, and I, being
unmarried, is the daughter of D.
Thus, we get the entire family tree as follows:

```
B = A
  /
 /  \
/    \
C     D
  /
 /  \
/    \
E/F  E/F

L = H
  /
 /  \
/    \
   G
     /  \
     /    \
     /      \
     /        \
   M         I
     /
     /
     /
     /
N
```

155. B
156. A
157. D
158. A
159-162

Completing the table

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Vegetarian</th>
<th>Non-vegetarian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class XII</td>
<td>0.55(88)</td>
<td>0.45(72)</td>
<td>0.4(64)</td>
<td>0.6(96)</td>
</tr>
<tr>
<td>Class XI</td>
<td>0.6(96)</td>
<td>0.4(64)</td>
<td>0.6(96)</td>
<td>0.4(64)</td>
</tr>
<tr>
<td>Secondary</td>
<td>0.55(704)</td>
<td>0.45(576)</td>
<td>0.55(704)</td>
<td>0.45(576)</td>
</tr>
<tr>
<td>Total</td>
<td>0.555(888)</td>
<td>0.445(712)</td>
<td>0.54(864)</td>
<td>0.46(736)</td>
</tr>
</tbody>
</table>

159. A.40

160. C.32

161. B.55

162. C. all of them

163-166

163. C

Option [1] is not possible as condition (c) is violated.
Option [2] is not possible as condition (a) is violated.
Option [3] is possible.

164. A

Set I: Green, Violet, _______.
As Green is chosen, the third colour has to be Orange (from (c)).
Set II: Orange, _______. _______.
As the first set has Orange, Yellow cannot be chosen. The other two colours can be any except Green, Violet, Orange and Yellow, i.e., Red, Blue or Purple.

165. B

Set I: Purple, Blue, Yellow
Set II: No Orange (from (e)), no Yellow (from (g)) and no Green (from (c))
One has to select Violet / purple, Red and Blue.
We cannot select Purple as the common colour, otherwise the two sets will have two common colours.

166. D

As Red and Blue are chosen for set I, set II cannot have Red, Blue and Yellow.

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
The third colour in set I has to be the only common colour between the two sets. The third colour in the first set cannot be Yellow as then the second set will also have Yellow.

167-170

167.D

<table>
<thead>
<tr>
<th>Carbohydrates</th>
<th>Protein</th>
<th>Fat</th>
<th>Minerals</th>
</tr>
</thead>
<tbody>
<tr>
<td>(≥ 30%)</td>
<td>(≥ 30%)</td>
<td>(&lt; 25%)</td>
<td>(≥ 5%)</td>
</tr>
<tr>
<td>(1) O &amp; P</td>
<td>65%</td>
<td>25%</td>
<td>5%</td>
</tr>
<tr>
<td>(2) R &amp; S</td>
<td>25%</td>
<td>50%</td>
<td>20%</td>
</tr>
<tr>
<td>(3) P &amp; S</td>
<td>62.5%</td>
<td>35%</td>
<td>0%</td>
</tr>
<tr>
<td>(4) O &amp; S</td>
<td>47.5%</td>
<td>40%</td>
<td>5%</td>
</tr>
</tbody>
</table>

168.A
As the diet contains 10% minerals, it can be prepared only by mixing ingredients containing 10% mineral content. As none of the ingredients contains more than 10% minerals so we cannot formulate a diet using an ingredient containing less than 10% minerals in whatever ratio we mix it.

169.D
As we require 10% fat content so it cannot be formulated by mixing any two out of O, P and S as O contain 10% and P & S contain less than 10% fat content. So (b) is wrong. Similarly P and Q cannot be mixed to give ≥ 30% protein content. So (a) is out.

<table>
<thead>
<tr>
<th>Diet</th>
<th>Fat (10%)</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>P &amp; R</td>
<td>10%</td>
<td>3 : 1</td>
</tr>
</tbody>
</table>

\[
\frac{50 \times \frac{3}{4}}{4} + \frac{1}{4} = 162.5
\]

| Q & S| 10%       | 1 : 4 |

\[
\frac{200 \times \frac{1}{5}}{5} + \frac{4}{5} = 120
\]

| R & S| 10%       | 1 : 3 |

\[
\frac{500 \times \frac{1}{4}}{4} + \frac{3}{4} = 200
\]
170. C:4:1:1

<table>
<thead>
<tr>
<th>Ratio</th>
<th>Carbohydrate content</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) 2:1:3</td>
<td>(80 \times \frac{2}{6} + 10 \times \frac{1}{6} + 45 \times \frac{3}{6})</td>
<td>(\approx 51%)</td>
</tr>
<tr>
<td>(b) 4:1:2</td>
<td>(80 \times \frac{4}{6} + 10 \times \frac{1}{6} + 45 \times \frac{2}{6})</td>
<td>(\approx 70%)</td>
</tr>
<tr>
<td>(c) 4:1:1</td>
<td>(80 \times \frac{4}{6} + 10 \times \frac{1}{6} + 45 \times \frac{1}{6})</td>
<td>(\approx 62.5%)</td>
</tr>
<tr>
<td>(d) 3:1:2</td>
<td>(80 \times \frac{3}{6} + 10 \times \frac{1}{6} + 45 \times \frac{2}{6})</td>
<td>(\approx 57%)</td>
</tr>
</tbody>
</table>

171-174

171. D
172. A
173. A
174. B

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
175.C
Since, Charlie got calls from only two companies. So, the aggregate cut off marks of these two companies will be minimum i.e. 171 and 175. Therefore, the two companies from which Charlie got the calls are company 2 and 3. Now, the minimum marks obtained by Charlie in a section (say section A) can be find out by maximizing the marks obtained in remaining three sections (B, C and D) like

If minimum marks obtained in a section is 21, then Charlie will get the call only from company 3. If minimum marks obtained in a section is 25, then Charlie will get the call from two companies 2 and 3.

176.B
Since, Bhama got calls from all companies, hence minimum aggregate marks obtained by her = Sum of maximum cut-off of each section = 45 + 45 + 46 + 45 = 181.

177.C
Four companies have cut off for section C and the remaining two companies have cut off for section D. Since, Aditya did not get a call from even a single company therefore, Aditya get less than the minimum cut off marks in section C (42) and less than the minimum cut off marks for section D (44). Hence, maximum aggregate marks obtained by Aditya = 50 (Section A) + 50 (Section B) + 41 (Section C) + 43 (Section D) = 184.
178. C

![Diagram](image1)

179. D

![Diagram](image2)

In the first arrangement, Reema, while in the second arrangement, Rekha sits five places to the left of Bala. Hence, [4].

180. D

In (I) Amar sits either between (Rakhi, Reema) or (Rama, Rekha). Either Rekha or Reema is Shyam or Bala’s common neighbour.
In (II), Amar sits between Rakhi and Rama. Thus, Rekha is the common neighbour.

181. B

![Diagram](image3)

Shyam sits two places to the left of Bala. Thus, only statement II is true. Hence, [2].

182-185

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
As each team plays 3 matches in stage I and 2 matches in stage II so in stage I there would be 9 matches and in stage II there would be 6 matches.

**Stage I** : There is one team which won all the matches in stage I, so it cannot be D, E, B, C or F as they all lost matches as per the observations of stage I. So A wins all 3 matches.

· A, B, D & E won atleast one match. So it is C and F who lost all 3 matches.

· D has 2 wins (against C & F) and one loss (to A).

· E has 2 wins (against C & F) and one loss (to B).

Hence, the situation after stage I observations is :

A — 3 W
D — 2W, 1L
E — 2W, 1L
C — 3 L
F — 3 L
B — 2 W, 1L

i.e. 9W and 9L in all (9 matches.)

**Stage II** : A lost its next 2 matches.

· Out of C & F one wins its next two matches and the other loses the next 2 matches. As F did not play against A in stage I, so he will win against A in stage II. Thus F wins both matches and C loses both matches in stage II.

· Out of the remaining 3 teams, viz. B, D and E, one team loses both matches. As there have to be 6 wins in all, so the other two will win both their matches.

· E has played with B, C and F in stage I, so he plays with A and D in stage II. Thus E wins both its matches.

· D played with A, C and F in stage I, so he plays with B & E in stage II. As E has won both its matches so D lost both its matches. Situation after stage II.

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
182. D.
The teams which won exactly 2 matches in the event are D & F.

183. C.
The team with most wins are B and E (4 wins each).

184. B.
The matches in stage I:

<table>
<thead>
<tr>
<th>Stage I</th>
<th>Stage II</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3W</td>
</tr>
<tr>
<td>B</td>
<td>2W, 1L</td>
</tr>
<tr>
<td>C</td>
<td>3L</td>
</tr>
<tr>
<td>D</td>
<td>2W, 1L</td>
</tr>
<tr>
<td>E</td>
<td>2W, 1L</td>
</tr>
<tr>
<td>F</td>
<td>3L</td>
</tr>
</tbody>
</table>

As F did not play with the top team (A) in stage I so only B, C, D and E can play with A. As E plays its matches with B, C and F so A plays with B, C and D in stage I and with E and F in stage II. Hence, E & F defeats A in stage II.

185. A.
B, E & F wins both their matches in stage - II.
The pattern of rise-fall of the price of the share of the ABC Ltd. with respect to time on the day is not given. Hence, it is not possible to compare the returns of the three traders Xavier, Yohan and Zeke.

If Yohan and Zeke buy the shares at prices less than bought by Xavier, their profits will be more than Xavier. If not, profit of Xavier will be more than that of the other two. But the actual rise-fall pattern of price of a share with respect to time on one day is not known, therefore answer cannot be determined.

Since, the share price of ABC Ltd. keeps rising throughout the day and peaks at the close of the day. Therefore, Xavier bought all his shares at the minimum share price. Yohan bought equal number of shares each time at 10 am, 11 am, 12 am, 1 am and 2 pm. But Zeke spent the same amount to buy the shares at each time 10 am, 11 am, 12 am, 1 am and 2 pm. Therefore, Zeke bought less number of shares when prices are high and more shares when price are less as compared to Yohan. Hence, Xavier’s return is more than Zeke and Zeke’s return is more than Yohan.
Since, the number of shares bought by Xavier at a 10 am is the same as the number of shares he sold at 3 pm. But Xavier lost money. Hence, the share price at 3 pm must be less than at 10 am.

Therefore, $P_{10} > P_{3} > P_2$

Since, price increased from 2 pm to 3 pm. As number of shares bought/sold by Khabib in each time is same and she made a profit.

Therefore, $P_{12} + P_3 > P_{10} + P_1$

So $P_{12} > P_1$ as $P_{10} > P_3$

Also for Dane, $P_1 + P_2 + P_3 > P_{10} + P_{11} + P_{12}$

So $P_2 > P_{11}$ as $P_{12} > P_1$ and $P_{10} > P_3$

Since price at 12 noon was lower than the opening price.

So $P_{10} > P_{12}$

Thus, $P_{10} > P_{12} > P_1 > P_3 > P_2 > P_{11}$

Thus $P_{10}$ is the highest share price which is at 10 am.

194. D

From above, $P_{10} > P_{12} > P_1 > P_3 > P_2 > P_{11}$

So, option (a) is necessarily false as $P_2 > P_{11}$.

195. D.

For the traffic to be evenly distributed at S, the cost on the routes SAT, SBAT, SBCT, SDCT, and SDT has to be the same.

<table>
<thead>
<tr>
<th>Routes</th>
<th>Fuel Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAT</td>
<td>9 + 5 = 14</td>
<td>1 4 15 14 15 14</td>
</tr>
<tr>
<td>SBAT</td>
<td>2 + 2 + 5 = 9</td>
<td>14 15 14 15 13</td>
</tr>
<tr>
<td>SBCT</td>
<td>2 + 3 + 2 = 7</td>
<td>16 15 14 15 14</td>
</tr>
<tr>
<td>SDCT</td>
<td>7 + 1 + 2 = 10</td>
<td>15 15 14 16 15</td>
</tr>
<tr>
<td>SDT</td>
<td>7 + 6 = 13</td>
<td>14 15 15 16 15</td>
</tr>
</tbody>
</table>

Option (e) is ruled out as the traffic moves only on SBAT. Again (3) is ruled out as the traffic do not move to the SD route. Similarly in (2) and (4) the traffic cannot be equally divided as there are various paths.

Give the best mocks for CAT and OMETS: https://catking.in/product/all-mocks/
possible which makes the distribution unequal. But in (1), there are only three routes SAT, SBAT and SDT, which among themselves can divide the traffic equally.

196.D

Street DT is not functional. For equal traffic through junctions A and C, the cost on routes SAT, SBAT, SBCT and SDCT shall be equal so that the traffic gets evenly distributed. This is true in case of option (e).

<table>
<thead>
<tr>
<th>Route</th>
<th>Fuel cost</th>
<th>Total cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAT</td>
<td>14</td>
<td>14 + 0 = 14</td>
</tr>
<tr>
<td>SBAT</td>
<td>9</td>
<td>9 + 5 + 0 = 14</td>
</tr>
<tr>
<td>SBCT</td>
<td>7</td>
<td>7 + 5 + 2 = 14</td>
</tr>
<tr>
<td>SDCT</td>
<td>10</td>
<td>10 + 2 + 2 = 14</td>
</tr>
</tbody>
</table>

197.B

Again the costs on all routes SAT, SBAT, SDCT and SDT have to be equal so that all motorist pay the same amount.

<table>
<thead>
<tr>
<th>Route</th>
<th>Fuel cost</th>
<th>Total cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAT</td>
<td>14</td>
<td>14 + 0 = 14</td>
</tr>
<tr>
<td>SBAT</td>
<td>9</td>
<td>9 + 5 + 0 = 14</td>
</tr>
<tr>
<td>SBCT</td>
<td>10</td>
<td>10 + 1 + 3 = 14</td>
</tr>
<tr>
<td>SDT</td>
<td>13</td>
<td>13 + 1 = 14</td>
</tr>
</tbody>
</table>

198.D

In this case cost on all the 5 routes has to be the same.

<table>
<thead>
<tr>
<th>Route</th>
<th>Fuel cost</th>
<th>Total cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAT</td>
<td>14</td>
<td>14 14 15 15 15</td>
</tr>
<tr>
<td>SBAT</td>
<td>9</td>
<td>14 14 15 15 15</td>
</tr>
<tr>
<td>SBCT</td>
<td>7</td>
<td>14 16 15 15 16</td>
</tr>
<tr>
<td>SDCT</td>
<td>10</td>
<td>14 16 15 15 16</td>
</tr>
<tr>
<td>SDT</td>
<td>13</td>
<td>15 14 16 15 15</td>
</tr>
</tbody>
</table>
199.C

The minimum cost to the commuters is Rs 7 for the route SBCT with 100% traffic flowing through it. If we increase this cost by a Re (using tolls 0, 0, 1, 0), i.e. the minimum cost becomes Rs 8, still 100% traffic flows through B. Further increasing the minimum cost to 9 (using tolls 0, 0, 2, 0) the traffic flows through SBAT \((2 + 2 + 5 = 9)\) and SBCT \((2 + 3 + 2 + 2 = 9)\), but still 100% traffic flows through B. Again increasing the minimum cost to 10, the traffic can move through SBAT, SBCT and SDCT. The various situations are

<table>
<thead>
<tr>
<th>Route</th>
<th>Cost (Toll)</th>
<th>Cost (0, 1, 2, 0)</th>
<th>Cost (1, 0, 3, 0)</th>
<th>Cost (0, 3, 0, 0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBAT</td>
<td>10</td>
<td>10</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>SBCT</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>SDCT</td>
<td>12</td>
<td>13</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Traffic</td>
<td>100%</td>
<td>100%</td>
<td>50%</td>
<td></td>
</tr>
</tbody>
</table>

So for minimum cost of Rs 10, the situation is fulfilled.

Since the teal tile is between the white and the vermillion tile and the magenta tile is to the North of the white tile. The White, teal and vermillion tiles form a row. Now, since the crimson tile is adjacent to the black tile in the Northern direction they should be from the North most and the middle row; and the white, teal and vermillion tiles from the south most row. The canary tile will be either to the east or the west of the crimson tile.

200.A.
The vermillion tile is to the south of the brown tile in the middle row and the cobalt tile is to the North of it, as crimson and black tiles will occupy the middle column. The canary tile will be North of the magenta tile as shown.

2 cases:

<table>
<thead>
<tr>
<th>Canary</th>
<th>Crimson</th>
<th>Cobalt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magenta</td>
<td>Black</td>
<td>Umber</td>
</tr>
<tr>
<td>White</td>
<td>Teal</td>
<td>Vermillion</td>
</tr>
</tbody>
</table>

201.C.
The cobalt tile is adjacent to the black tile in the Eastern direction and the crimson tile is adjacent to the black tile in the Northern direction and the Canary tile is adjacent to the crimson tile in so, we have the
following position:

<table>
<thead>
<tr>
<th>Canary</th>
<th>Crimson</th>
<th>Umber</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magenta</td>
<td>Black</td>
<td>Cobalt</td>
</tr>
<tr>
<td>White</td>
<td>Teal</td>
<td>Vermillion</td>
</tr>
</tbody>
</table>

202. C

203.C

If the cobalt tile is beside the crimson tile then the north most row will have two possibilities as cobalt – crimson – canary. canary – crimson – cobalt and for each of this possibility there is exactly one combination of the next two rows.