

# Puzzle Test questions for IBPS PO Pre, SBI PO Pre, SBI Clerk Mains, IBPS Clerk Mains, RRB Scale I Pre and LIC AAO. 

## SET - 1

Direction: Read the given information carefully and answer the questions given beside:
Six boxes are placed one above the other in a rack. The lowermost rack is numbered as one and above is two and so on. Each box has different number of balls.

Box $P$ is placed immediately above Box R. Only one box is placed between the boxes having 175 and 165 balls. Box $U$ has 210 balls. Box $L$ is placed above Box $M$ but neither of the boxes is placed in the topmost rack. Box which has 119 balls is placed immediately above the box which has 190 balls. Three boxes are placed between Box R and the box has 180 balls. Box which has 175 balls is placed immediately above the box, which has 180 balls. Two boxes are placed between the box which has 190 balls and Box K.

1. What is the average number of balls in the boxes, which are placed in even numbered racks?
A. 168 balls
B. 158 balls
C. 153 balls
D. 164 balls
E. None of these
2. Which among the following statements is true?
A. Only one box is placed between Box $M$ and the box which has 175 balls.
B. Box $U$ and the box which has 165 balls are placed not adjacent to each other.
C. The box which has 180 balls is placed immediately above the box which has 165 balls.
D. No boxes are placed between the box P and Box L .
E. None is true
3. In certain way Box $P$ is related to 119 balls, Box $L$ is related to 165 balls and in same way, which among the following box is related to $\mathbf{1 8 0}$ balls?
A. Box M
B. Box U
C. Box R
D. Box P
E. None of these
4. If box O is placed immediate above of box P then box O is placed in which number rack?
A. Fifth
B. Ninth
C. Seventh
D. Sixth
E. None of these
5. Box $K$ has how many balls in it ?
A. 175
B. 119
C. 190
D. 210
E. None of these

## SET-2

Certain number of boxes are placed one above the other. Some of the boxes have different number of balls. No two boxes have same number of balls.

There are four boxes between Box $W$ and Box $T$, which at the topmost position. Two boxes are placed between Box W and Box V. One box is placed between Box V and Box Q, which has 12 balls. One box is placed between Box $R$ and Box $Q$. Box placed immediately below of Box $V$ contains one ball more than Box S. Two boxes are placed between Box $R$ and Box S. Box $S$ is not placed immediately below of the box, which has even numbered balls. Box $S$ has 9 balls. Maximum ten boxes are placed one above the other. At least one box is there between topmost box and Box S.

## 6. How many boxes are there in the arrangement?

A. Ten
B. Nine
C. Seven
D. Eight
E. Can't be determined
7. How many boxes are placed between Box T and Box S?
A. None
B. Four
C. Six
D. Eight
E. Can't be determined
8. What is the position of Box $Q$ with respect to Box $S$ ?
A. Fifth to the above
B. Fifth to the below
C. Fourth to the below
D. Either A or B
E. Either B or C
9. If Box $L$ is placed immediately above Box $E$, then which among following statement is true?
A. Two boxes are placed between Box $Q$ and Box $L$.
B. Number of boxes below Box $L$ is same as above Box $V$.
C. More than one box is placed between Box W and Box E.
D. Box E and the box, which has 9 balls are adjacent to each other.
$E$. All of these
10. If the ratio of balls in Box $Q$ and Box $R$ is $1: 2$ respectively and the sum of the balls in Box $S$ and Box $W$ is 27, then what is the difference between the balls in Box $R$ and Box W?
A. 12 balls
B. 18 balls
C. 6 balls
D. 24 balls
E. Can't be determined

## SET-3

Nine sweet boxes are arranged in racks, one above the other. Each sweet box has different weight such as $230 \mathrm{~g}, 170 \mathrm{~g}, 360 \mathrm{~g}, 510 \mathrm{~g}, 340 \mathrm{~g}, 720 \mathrm{~g}, 550 \mathrm{~g}, 690 \mathrm{~g}$ and 460 g . Each box is differentiated with different color such as Green, White, Black, Orange, Pink, Grey, Red, Yellow and Blue. All the above information is not necessarily in the same order.

Number of box below the Box which is 340 g and above the box which is 170 g is same. Only two boxes are placed between Red box and Green box. Blue box is above Green box and only one box is placed between them. There are as many boxes between Green box and Orange box as between Pink box and Black box. Pink box's weight is equal to the sum of the weight of Blue box and Red box. The weight of White box is less than Yellow box and more than Orange box. The Red box and Black box is arranged in the adjacent racks. Number of boxes placed between White box and Grey box is twice the number of box placed between Yellow box and White box. Red box is placed below the Blue box. Yellow Box is not placed above the Blue box. Weight of Green box is ten grams more than the twice of Grey box. Red box is not placed in the lower most rack. More than one box is placed below the Black box. The weight of the Black box is three times the weight of Blue box. The Grey box's weight is twothird of weight of Black box. Box which have the weight of 230 g and 340 g are in the adjacent racks.
11. What is the difference between the weights of the box having minimum weight and the Orange box?(in grams)
A. 180
B. 290
C. 320
D. 230
E. None of these
12. Which of the following combinations is true?
A. Orange-690g
B. Red-510g
C. Pink-170g
D. Grey-340g
E. All are true

## 13. Which of the following colored sweet boxes has the maximum weight?

A. White
B. Pink
C. Black
D. Orange
E. Yellow
14. What is the average weight (in gm) of Green, Blue and Yellow sweet boxes?
A. 440
B. 990
C. 630
D. 490
E. None of these
15. How many sweet boxes are placed between the box weighing 230 g and the box weighing 510g?
A. One
B. Two
C. Three
D. Four
E. Either two or three

## SET-4

Nine boxes named A, B, C, D, E, F, G, H and I are placed one above other but not necessarily in the same order. Only five boxes are placed between A and C. E is placed immediate above C. Only three boxes are placed between E and D. Number of boxes placed between $A$ and $D$ is same as between $B$ and $E$. $F$ is placed below $B$, but not at bottom. Not less than four boxes are placed between $E$ and $F$. One box is placed between $F$ and $G$. Box $I$ is placed above box $H$.

## 16. How many boxes are placed between I and F?

A. None
B. 1
C. 2
D. 3
E. Can't be determined
17. $E$ is related to $G$ in a way, $F$ is related to $l$ in the same way then which of the following is related to $C$ in the same way?
A. G
B. B
C. A
D. D
E. H
18. What is the position of I with respect to $B$ ?
A. 2 boxes below
B. 1 box below
C. 4 boxes above
D. Immediate above
E. Can't be determined
19. Which of the following boxes is placed exactly in the middle?
A. C
B. D
C. G
D. F
E. None of these
20. Which of the following boxes is placed immediately above and immediately below $B$ ?
A. I and D
B. I and C
C. C and E
D. E and G
E. None of these

## SET-5

There are six boxes placed above each other. They are numbered from 1 to 6 and containing different edible items. Candy box is placed above Chocolate box. Box 2 contains Cutlery and is placed just above Candy box. Box 5 is not placed below Box 2.3 boxes are placed between Box 4 and the box that has Dry fruit. Dry fruit box is placed adjacent to Cutlery box and is above Box 4.2 boxes are placed between Box5 and the box containing Vegetable. Box1, which is not placed on the top, contains Fruit.

## 21. If Box $\mathbf{3}$ contains Candy then how many boxes are placed below Box 6 ?

A. 3
B. 2
C. 4
D. Can't be determined
E. None of these
22. How many boxes are placed between Cutlery box and Fruit box?
A. None
B. 1
C. 2
D. 3
E. None of these
23. Which of the following shows the position of Chocolate box?
A. Third from the top
B. Adjacent to Cutlery box
C. Second from top
D. Second from bottom
E. None of these
24. Which of the following items is contained in Box 5 ?
A. Dry fruit
B. Fruit
C. Either Chocolate or Dry fruit
D. Vegetable
E. Can't be determined

## 25. Which of the following boxes contain Candy?

A. Box 6
B. Box 5
C. Box 4
D. Can't be determined
E. None of these

## SET-6

Eight boxes - P, Q, R, S, T, U, V and W were placed in an almirah of eight shelves. The bottom shelf was numbered 1 and the topmost shelf was numbered 8 . Each of these boxes contained different amount of Sugar - $25 \mathrm{~kg}, 20 \mathrm{~kg}, 17 \mathrm{~kg}, 10 \mathrm{~kg}, 8 \mathrm{~kg}, 5 \mathrm{~kg}, 2 \mathrm{~kg}$ and 1 kg but not necessarily in the same order.

Box $V$ was placed at one of the even numbered shelves and contained 17 kg of Sugar. The box which was placed on 6 th shelf contained 10 kg of Sugar. Box Q was placed immediately below the box which contained 8 kg of Sugar and immediately above the box which contained 2 kg of Sugar. Box R was not the lightest and Box $U$, was the heaviest. Box $R$ was placed above the shelf on which Box $U$ was placed but not on the even numbered shelf. Box P, contained 20 kg of Sugar, and was placed either at the top or bottom shelf. There are three boxes between Box $U$ and Box $S$ and Box $S$ was placed below the shelf on which Box $U$ was placed. T was placed immediately above the box which was heaviest.
26. How many box(es) were placed above the box which contained 25 Kg of Sugar?
A. None
B. One
C. Two
D. Three
E. More than three
27. What amount of Sugar was contained by Box Q?
A. 8 Kg
B. 1 Kg
C. 5 Kg
D. 2 Kg
E. None of these
28. How many boxes were placed between the box which contained 5 kg of Sugar and the box which contained 1 kg of Sugar?
A. More than three
B. None
C. One
D. Two
E. Three
29. Which of the following combinations is correct?
A. $7-\mathrm{R}-8 \mathrm{Kg}$
B. $1-\mathrm{P}-20 \mathrm{Kg}$
C. $2-\mathrm{Q}-1 \mathrm{Kg}$
D. $6-\mathrm{V}-17 \mathrm{Kg}$
E. None is correct
30. Four of the following five are alike in some way and hence form a group. Which of the following is the one that does not belong to the group?
A. V
B. $Q$
C. R
D. U
E. T

## SET - 7

There are eight boxes from A to H are placed one above the other but not necessarily in the same order. The lowermost box position is numbered as one and above as two and so on. Only two boxes are placed between the Box $H$ and Box $D$ in which Box $D$ is placed below Box $H$. Box $H$ is placed in odd numbered position. Box $H$ is not placed above Box $B$. Box $B$ is placed in even numbered position. Only one box is placed between the Box $G$ and Box $E$ in which Box $E$ is placed below Box $G$. Box $F$ is not placed above Box $A$. Four boxes are placed between Box $F$ and Box $B$. Box $B$ is placed above Box $F$.
31. Which among the following box is placed immediately below Box H ?
A. Box F
B. Box E
C. Box D
D. Box C
E. None of these
32. Which among the following box is placed adjacent to Box $B$ and Box $G$ ?
A. Box A
B. Box C
C. Box F
D. Box H
E. None of these
33. Which among the following statements is definitely true?
A. Box H is placed just above Box G .
B. Box $D$ is placed in odd numbered position.
C. Box $C$ is not placed in lowermost position.
D. Box $B$ is placed three boxes above BoxH.
E. None of these
34. Which of the following boxes is placed between box $G$ and box $E$ ?
A. B
B. D
C. H
D. A
E. None of these.
35. Find the odd one out.
A. 1 box C
B. 5 box H
C. 7 box A
D. 1 box $B$
E. 2 box D

## SET - 8

Eight boxes from H 1 to H 8 are placed in different racks but not necessarily in the same order. The lowermost rack is numbered as one and its immediate above is two and so on. Each box has different number of balls among consecutive odd numbers from 27 to 41 but not necessarily in the same order.

Box H 6 is placed in even numbered rack. There are three boxes are placed between Box H 6 and Box H3. There are two boxes are placed between Box H 5 and Box H 2 . Box H 3 is not placed in the topmost position. Box H 2 has 29 balls and placed in fifth rack. Box H 5 is placed immediately above the one box which has 27 balls. There are as many as boxes placed between the box which has 29 balls and the box which has 27 balls is same as the box which has 29 balls and the box which has 31 balls. There are two boxes are placed between Box H8 and Box H1. Neither Box H8 nor Box H1 is placed in lowermost position. Box H 7 is placed in odd prime numbered rack. There are only three boxes are placed between the box which has 41 balls and the box which has 37 balls. Box H 8 has 37 balls. The one box which has 33 balls placed is immediately below the box which has 35 balls. Box H6 doesn't have 39 balls.

## 36. Which among the following box has 39 balls?

A. The box placed in 6th rack
B. The box placed in 2nd rack
D. The box placed in 7th rack
E. Cannot be determined
C. The box placed in 1st rack
37. How many boxes are placed between Box H 1 and Box H7?
A. One
B. Two
C. Three
D. Four
E. None

## 38. What is sum of balls together of the box which is placed in topmost and lowermost position?

A. 72 balls
B. 66 balls
C. 76 balls
D. 74 balls
E. None of the above
39. Which among the following statements is definitely true?
A. Sum of balls together in the box which is placed 6th and 8th rack is 78.
B. Number of boxes placed between Box H 7 and Box H 8 is same as Box H 2 and Box H 1 .
C. More than two boxes are placed between Box H 8 and the box which has 39 balls.
D. Box H 7 has 31 balls and it is placed immediately above the box which has 33 balls.
E. None is true

## 40. Which of the following combination is definitely true?

A. Box H3-6th rack-41 balls
B. Box H7-7th rack-31 balls
C. Box H4-1st rack-33 balls
D. Box H8-4th rack-35 balls
E. None of the above

## SET-9

Six boxes of different colours were stacked one above the other in an almirah. Pink coloured box was placed below Blue coloured box, which was placed immediately above the Green coloured box. Neither the Red nor Purple coloured box was placed at the bottom of the stack. Pink coloured box was placed below the Black coloured box, which was placed at the gap of 2 boxes below Purple coloured box. Red coloured box was not placed adjacent to Black coloured box.

## 1. Which of the following box was placed at a gap of two boxes from Green coloured box?

A. Black
B. Blue
C. Pink
D. Red
E. Purple
2. How many boxes were there between Pink and Black coloured box?
A. None
B. One
C. Two
D. Three
E. Either Two or Three

## 3. Which of the following box was placed at the top?

A. Purple
B. Red
C. Blue
D. Black
E. Can't be determined
4. What is the position of Purple coloured box?
A. Fifth form the top
B. Third form the top
C. Fifth form the bottom
D. Second form the bottom
E. None of these.

## 5. Which of the following statements is true?

A. Pink coloured box is placed at even numbered box.
B. Red coloured box is placed just above Green coloured box.
C. The position of Blue coloured box is third from the bottom.
D. Black coloured box is placed even numbered box.
E. Three boxes placed between Blue box and Black box.

## SET-10

Seven boxes of different colours - Red, Orange, Yellow, Green, Cyan, Blue and Indigo are kept one above the other, but not necessarily in the same order. Each box is given a different number viz. $101,121,151,191,231,221$ and 225 , but not necessarily in the same order.

Only three boxes are kept between Indigo coloured box and box number 221. Only two boxes are kept between Indigo coloured box and Orange coloured box. Orange coloured box is kept somewhere below box number 221. Only one box is kept between Orange coloured box and the box number 121. Cyan coloured box is kept immediately below the box number 225. Cyan coloured box is kept at one of the positions above box number 221. There is only one box between Cyan coloured box and the box the number given to which is less than that given to Cyan coloured box. The number given to Cyan coloured box is neither 191 nor 231. Only two boxes are kept between box number 151 and Blue coloured box. The difference between Blue coloured box and the box immediately below it is less than 80. Yellow coloured box is not the topmost box. yellow coloured box number is not 121 . Only two boxes are kept between Yellow coloured box and Red colour box.
46. Four of the following five are alike in a certain way and hence form a group. Which of the following does not belong to the group?
A. Orange colour box-121
B. Yellow colour box-191
D. Green colour box-221
E. Red colour box-231
C. Cyan colour box-101

## 47. What is the position of Green colour box in the given stack of boxes?

A. Fourth from the top
B. Fifth from the bottom
C. First from the top
D. Second from the bottom
E. Third from the bottom
48. Which of the following boxes is numbered 231 ?
A. Red colour box
B. Blue colour box
D. Indigo colour box
E. Green colour box
49. How many boxes are kept between Cyan colour box and Box number 121?
A. One
B. Two
C. Three
D. More than three
E. None
50. What is the number of Yellow colour box?
A. 151
B. 221
C. 225
D. 231
E. 101

## CORRECT ANSWERS:

| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ | $\mathbf{1 0}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C | E | A | C | A | A | D | A | E | C |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| B | D | B | A | B | D | C | D | B | A |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| B | D | D | A | D | D | B | A | C | E |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| B | A | D | C | D | A | C | D | E | C |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| D | A | B | C | D | E | C | D | C | B |


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## Common Explanations: (Set 1)

## References:

Box $P$ is placed immediately above Box $R$.
Three boxes are placed between Box $R$ and the box has 180 balls.
Box which has 175 balls is placed immediately above the box, which has 180 balls.

Only one box is placed between the boxes having 175 and 165 balls.

## Inferences:

We get two possibilities with respect to above statements,
Case-1: Box $P$ and Box $R$ is placed in $6^{\text {th }}$ and $5^{\text {th }}$ rack respectively. The box which has 180 balls is placed in the lowermost rack. The box which has 175 balls is placed in second rack. The box which has 165 balls is placed in fourth rack.

Case-2: Box P and Box $R$ is placed in $2^{\text {nd }}$ and $1^{\text {st }}$ rack respectively. The box which has 180 balls is placed in the $5^{t h}$ rack. The box which has 175 balls is placed in topmost rack. The box which has 165 balls is placed in fourth rack.

By using above information we get the following table as shown,

| Case-1 |  |  | Case-2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rack | Box | No. of <br> Balls | Rack | Box | No. of <br> Balls |
| 6 | Box P |  | 6 |  | 175 |
| 5 | Box R |  | 5 |  | 180 |
| 4 |  | 165 | 4 |  | 165 |
| 3 |  |  | 3 |  |  |
| 2 |  | 175 | 2 | Box P |  |
| 1 |  | 180 | 1 | Box R |  |

## References:

Box $U$ has 210 balls.

Box which has 119 balls is placed immediately above the box which has 190 balls.

Two boxes are placed between the box which has 190 balls and Box K.

Box $L$ is placed above Box $M$ but neither of the boxes is placed in the topmost rack.

## Inferences:

From above statements,
Box $U$ has 210 balls and it is placed in $3^{\text {rd }}$ rack (only possibility in both cases)

Case-1: The boxes which have 119 and 190 balls are placed in $6^{\text {th }}$ and $5^{\text {th }}$ rack respectively. Box K is placed in second rack. Finally, Box $L$ and $B o x M$ are placed in $4^{\text {th }}$ and $1^{\text {st }}$ rack respectively. All the given condition satisfied and we get the completed arrangement as shown,

Case-2: The boxes which have 119 and 190 balls are placed in $6^{\text {th }}$ and $5^{\text {th }}$ rack respectively. Box K is placed in second rack. Either Box L or Box M is not placed in the topmost rack. Thus this case-2 becomes invalid and it can be eliminated.

By using above information we get the following table as shown,

| Case-1 |  |  | Case-2 [Eliminated] |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rack | Box | No. of <br> Balls | Rack | Box | No. of <br> Balls |
| 6 | Box P | 119 | 6 |  | 175 |
| 5 | Box R | 190 | 5 |  | 180 |
| 4 | Box L | 165 | 4 | Box K | 165 |
| 3 | Box U | 210 | 3 | Box U | 210 |
| 2 | Box K | 175 | 2 | Box P | 119 |
| 1 | Box M | 180 | 1 | Box R | 190 |

## Answers:

1. Following the common explanation, we get " 153 balls".

Even numbered racks: $2^{\text {nd }}$ rack-Box K-175 balls, $4^{\text {th }}$ rack-Box L-165 balls \& $6^{\text {th }}$ rack-Box P-119 balls Sum $=175+165+119=459$ balls Average $=459$ balls $/ 3=153$ balls Hence, option C is correct.
2. Following the common explanation, we get "None is true". Hence, option E is correct.
3. Following the common explanation, we get "Box $M$ has 180 balls".

Relation: Box P has 119 balls and Box L has 165 balls
Similarly, Box M has 180 balls
Hence, option A is correct.
4. Following the common explanation, we get "Box O will placed in Seventh rack". Hence, option C is correct.
5. Following the common explanation, we get "Box K has 175 balls in it". Hence, option A is correct.

## Common Explanation : (Set - 2)

## References:

Maximum ten boxes are placed one above the other.
There are four boxes between Box W and Box T, which at the topmost position.
Two boxes are placed between Box W and Box V.
One box is placed between Box $V$ and Box $Q$, which has 12 balls.
One box is placed between Box $R$ and $B o x Q$.

## Inferences:

From above statements,
Given, maximum 10 boxes are placed one above the other.
Let the position of the box in lowermost is numbered as 1 and topmost is 10 (note: We start with 10 boxes, if necessary it can be changed with respect to given statements)

Given, Box T is at topmost position. Then, Box W is fifth to below Box T (4 boxes between them)
Box $V$ is placed either $3^{\text {rd }}$ to above Box $W$ or $3^{\text {rd }}$ to below Box $W$ ( 2 boxes between them). Thus we get two possibilities.

Case-1: Here, Box $V$ is placed $3^{\text {rd }}$ to above Box W. Then, Box $Q$ ( 12 balls) is placed $2^{\text {nd }}$ to below Box $V(1$ box is between them). Box $R$ is $2^{\text {nd }}$ to below Box $Q$ ( 1 box is between them, only possibility)

Case-2: Here, Box $V$ is placed $3^{\text {rd }}$ to below Box W. Then, Box $Q$ ( 12 balls) is placed $2^{\text {nd }}$ to above Box $V(1$ box is between them, only possibility). Box $R$ is $2^{\text {nd }}$ to above Box $Q$ (1 box is between them, only possibility)

By using above information, we get the following table as shown,

| Position | Case-1 |  | Case-2 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Box | Balls | Box | Balls |
| Topmost 10 | Box T |  | Box T |  |
| 9 |  |  |  |  |
| 8 | Box V |  |  |  |
| 7 |  |  |  |  |
| 6 | Box Q | 12 | Box R |  |
| 5 | Box W |  | Box W |  |
| 4 | Box R |  | Box Q | 12 |
| 3 |  |  |  |  |
| 2 |  |  | Box V |  |
| 1 |  |  |  |  |
| 1 <br> Lowermost |  |  |  |  |

## References:

Box $S$ has 9 balls.
Box placed immediately below of Box $V$ contains one more ball than Box $S$.
Two boxes are placed between Box $R$ and Box S.

Box $S$ is not placed immediately below of the box, which has even numbered balls.

At least one box is there between topmost box and Box S.

## Inferences:

From above statements,

Box $S$ has 9 balls. Then, Box placed immediately below of Box $V$ contains 10 balls (one more ball than Box S )
Case-1: From above statement, the box which is at $4^{\text {th }}$ position from top has 10 balls. Box $S$ (has 9 balls) is placed at lowermost ( $1^{\text {st }}$ position). Given, minimum 1 box is there between Box $T$ (topmost box) and Box S. In this case there are 8 boxes between Box T (topmost) and Box S. Thus all the conditions satisfied and we get the completed table (Note: There are 10 boxes in the arrangement)

Case-2: From above statement, the box which is at lowermost position has 10 balls. As per $4^{\text {th }}$ reference point, Box $S$ is not placed at $3^{\text {rd }}$ position from bottom since Box $Q$ contains 12 balls, which is at $4^{\text {th }}$ position from bottom. Therefore Box $S$ is placed at $9^{\text {th }}$ position from bottom. Given, minimum 1 box is there between Box $T$ (topmost box) and BoxS. But in this case there is no box between Box T (topmost) and Box S, which is not possible. Hence Case-2 can be eliminated.

| Position | Case-1 |  | Case-2 [Eliminated] |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Box | Balls | Box | Balls |
| Topmost 10 | Box T |  | Box T |  |
| 9 |  |  | Box S | 9 |
| 8 | Box V |  |  |  |
| 7 |  | 10 |  |  |
| 6 | Box Q | 12 | Box R |  |
| 5 | Box W |  | Box W |  |
| 4 | Box R |  | Box Q | 12 |
| 3 |  |  |  |  |
| 2 |  |  | Box V |  |
| 1 <br> Lowermost | Box S | 9 |  | 10 |

## Answers :

6. Following the common explanation, we get "Ten Boxes".

Hence, option A is correct.
7. Following the common explanation, we get "8 boxes are placed between Box T and Box S". Hence, option D is correct.
8. Following the common explanation, we get "Box Q is $5^{\text {th }}$ to the above Box S ".

Hence, option A is correct.
9. Following the common explanation, we get "All of these".

All the given statements are true.
As per question, Box L and Box E are placed at $3^{\text {rd }}$ and $2^{\text {nd }}$ position from bottom.

| Position | Case-1 |  |
| :---: | :---: | :---: |
|  | Box | Balls |
| Topmost 10 | Box T |  |
| 9 |  |  |
| 8 | Box V |  |
| 7 |  | 10 |
| 6 | Box Q | 12 |
| 5 | Box W |  |
| 4 | Box R |  |
| 3 | Box L |  |
| 2 | Box E |  |
| 1 | Box S | 9 |

Hence, option E is correct.
10. Following the common explanation, we get " 6 balls".

We know Box $Q=12$ balls and $B o x S=9$

From question, Box $R=(2 / 1) \times$ Box $Q=2 \times 12=24$ balls

Box $S+$ Box W=27 balls
Box $W=27-9=18$ balls

Difference Box R - Box W = 24-18 = 6 balls

| Position | Case-1 |  |
| :---: | :---: | :---: |
|  | Box | Balls |
| Topmost 10 | Box T |  |
| 9 |  |  |
| 8 | Box V |  |
| 7 |  | 10 |
| 6 | Box Q | 12 |
| 5 | Box W | 18 |
| 4 | Box R | 24 |
| 3 |  |  |
| 2 |  |  |
| 1 | Box S | 9 |
| Lowermost | 9 |  |

Hence, option C is correct.

## Common explanation : (Set - 3)

## References

Each sweet box has different weights such as $230 \mathrm{~g}, 170 \mathrm{~g}, 360 \mathrm{~g}, 510 \mathrm{~g}, 340 \mathrm{~g}, 720 \mathrm{~g}, 550 \mathrm{~g}, 690 \mathrm{~g}$ and 460 g . Weight of Green box is ten grams more than the twice of Grey box.
The weight of the Black box is three times the weight of Blue box.
The Grey box's weight is two-third of weight of Black box
Pink box's weight is equal to the sum of the weight of Blue box and Red box.
The weight of White box is less than Yellow box and more than Orange box.

## Inferences

First we'll calculate the weight of each box as per the above hints.

As we have the hint that grey box's weight is two third of the weight of Black box, so first we'll identify such combinations in the given weights.
Only 510-340 and 690-460 are the satisfying combinations for the weights of black and grey boxes respectively.

But we have another hint that weight of black box is thrice of that of blue box. Thus the second combination where black box's weight is 690 gets eliminated here.
So, the weight of blue box is $510 / 3=170 \mathrm{~g}$ and weights of black and grey boxes are $\mathbf{5 1 0 g}$ and $\mathbf{3 4 0 g}$ respectively.

Weight of green box is 10 gms , more than twice of weight of grey box, thus weight is $=(340 \times 2)+10=690 \mathrm{~g}$

Now, Weight of pink box = weight of (blue box + red box) or (170 + red box's weight) So, we'll put the value of available weights to balance the equation.

| Value of <br> blue box <br> (a) | Value of <br> red box <br> (b) | Value of pink <br> box <br> (a+b) | Remarks |
| :---: | :---: | :---: | :---: |
| 170 | 230 | 400 | Not satisfied as the obtained value of pink box is not <br> among the given weights. |
| 170 | 360 | 530 | Not satisfied as the obtained value of pink box is not <br> among the given weights. |
| 170 | 720 | 890 | Not satisfied as the obtained value of pink box is not <br> among the given weights. |
| $\mathbf{1 7 0}$ | $\mathbf{5 5 0}$ | $\mathbf{7 2 0}$ | Satisfies the condition as 720 is one of the given <br> weights. |

Now available weights are $-230 \mathrm{~g}, 360 \mathrm{~g}$ and 460 g .
As weight of white box is less than that of Yellow but more than that of Orange, so the weights of white, yellow and orange boxes are $\mathbf{3 6 0}, \mathbf{2 3 0 g}$ and 460 g respectively.

| Box color | Weight <br> (in gm) |
| :---: | :---: |
| Green | 690 |
| White | 360 |
| Pink | 720 |
| Black | 510 |
| Grey | 340 |
| Red | 550 |
| Yellow | 230 |
| Blue | 170 |
| Orange | 460 |

## References

Number of box below the Box which is 340 g and above the box which is 170 g is same.
Red box is not placed in the lower most rack.
The Red box and Black box is arranged in the adjacent racks.
More than one box is placed below the Black box.
Only two boxes are placed between Red box and Green box.
Blue box is above Green box and only one box is placed between them.
Red box is placed below the Blue box.

## Inferences

Following three cases can be drawn using the above information.
Case1 \{Eliminated because number of box below $\mathbf{3 4 0} \mathrm{g}$ and that of above 170 g is not same\}

| Rack <br> number | Box color | Weight <br> (in gm) |
| :---: | :---: | :---: |
| 9 |  |  |
| 8 |  |  |
| 7 | Blue | 170 |
| 6 |  |  |
| 5 | Green |  |
| 4 |  |  |
| 3 | Black | 510 |
| 2 | Red | 550 |
| 1 |  |  |

Case2 (When No box is above 170g and no box is below 340 g )

| Rack <br> number | Box color | Weight <br> (in gm) |
| :---: | :---: | :---: |
| 9 | Blue | 170 |
| 8 |  |  |
| 7 | Green | 690 |
| 6 |  |  |
| 5 |  |  |
| 4 | Red | 550 |
| 3 | Black | 510 |
| 2 |  |  |
| 1 | Grey | 340 |

Case 3 (When One box is above 170 g and One box is below 340g)

| Rack <br> number | Box color | Weight <br> (in gm) |
| :---: | :---: | :---: |
| 9 |  |  |
| 8 | Blue | 170 |
| 7 |  |  |
| 6 | Green | 690 |
| 5 |  |  |
| 4 | Black | 510 |
| 3 | Red | 550 |
| 2 | Grey | 340 |
| 1 |  |  |

## References

There are as many boxes between Green box and Orange box as between Pink box and Black box.
Number of boxes placed between White box and Grey box is twice the number of box placed between Yellow box and White box.
Yellow Box is not placed above the Blue box.

## Inferences

## Case 2 fails as it does not meet the second hint.

If we place Orange box immediately above Green box then the condition that no. of boxes between white and grey is twice of that of between white and yellow box will violate. Thus Orange box will be placed at a difference of two boxes from green box, similarly the difference of boxes between black and pink box is also 2 .

Thus the final arrangement is obtained from case 3.

| Rack <br> number | Box color | Weight <br> (in gm) |
| :---: | :---: | :---: |
| 9 | Orange | 460 |
| 8 | Blue | 170 |
| 7 | Yellow | 230 |
| 6 | Green | 690 |
| 5 | White | 360 |
| 4 | Black | 510 |
| 3 | Red | 550 |
| 2 | Grey | 340 |
| 1 | Pink | 720 |

## Answers :

11. Following the common explanation, we get " 290 grams".

Weight of Orange box is 460 g and weight of Blue box i.e. box with minimum weight is 170 g .
Thus required difference is 290 g .
Hence, option B is correct.
12. The following common explanation, we get "Grey box-340 grams".

Hence, option D is correct.
13. The following common explanation, we get "Pink box - $\mathbf{7 2 0}$ grams"

Hence, option B is correct.
14. The following common explanation, we get "440".

Green $=690 \mathrm{~g}$, Blue $=170 \mathrm{~g}$, Yellow $=460 \mathrm{~g}$ then Average $=[690+170+460] / 3=1320 / 3=440 \mathrm{~g}$.

Hence, option A is correct.
15. The following common explanation, we get "Two Boxes".

Hence, option B is correct.

## Common explanation : (Set - 4)

## Reference:

Only five boxes are placed between $A$ and $C$.
E is placed immediate above C.
Only three boxes are placed between E and D.

## Inference:

Following 5 cases are possible:

| Case-1 | Case-2 | Case-3 | Case-4 | Case-5 |
| :---: | :---: | :---: | :---: | :---: |
| A |  | E |  |  |
| D | A | C | E |  |
|  | D |  | C | A |
|  |  |  |  | D |
|  |  | D |  |  |
| E |  |  | D |  |
| C | E |  |  |  |
|  | C | A |  | E |
|  |  |  | A | C |

## Reference:

Number of boxes placed between A and D is same as between B and E .
Not less than four boxes are placed between E and F.
One box is placed between F and G .
Box I is placed above box H .

## Inference:

All the cases except Case3 eliminate as they do not satisfy the third hint.

| Case-1 <br> [Eliminated] $]$ | Case-2 <br> Eliminated] | Case-3 | Case-4 <br> [Eliminated] | Case-5 <br> Eliminated] |
| :---: | :---: | :---: | :---: | :---: |
| A |  | E |  |  |
| D | A | C | E |  |
|  | D | I | C | A |
|  |  | B |  | D |
| B |  | D | B |  |
| E | B | H | D |  |
| C | E | F |  | B |
|  | C | A |  | E |
|  |  | G | A | C |

Thus the final arrangement is as follows:

| Case-3 |
| :---: |
| E |
| C |
| I |
| B |
| D |
| H |
| F |
| A |
| G |

## Answers:

16. 3 boxes are placed between $I$ and $F$.

Hence option D is correct.
17. $E$ is related to $G$ in a way that their positions from top and bottom are same, similarly $F$ is related to $I$, in the same way $A$ is related to $C$.

Hence option C is correct.
18. I is placed immediate above $B$.

Hence option D is correct.
19. D is placed exactly in the middle.

Hence option B is correct.
20. I and $D$ are placed immediately above and immediately below $B$.

Hence option A is correct.

## Common explanation : (Set - 5)

## Reference:

Box 2 contains Cutlery and is placed just above Candy box. 3 boxes are placed between Box 4 and the box that has Dry fruit.
Dry fruit box is placed adjacent to Cutlery box and is above Box 4.

## Inference:

The

With the given hints following cases are possible:

| Case1 |  | Case2 |  |
| :---: | :---: | :---: | :---: |
| Box | Item | Box | Item |
|  | Dry fruit |  |  |
| 2 | Cutlery |  | Dry fruit |
|  | Candy | 2 | Cutlery |
|  |  |  | Candy |
| 4 |  |  |  |
|  |  | 4 |  |

## Reference:

Box 5 is not placed below Box 2 .
2 boxes are placed between Box5 and the box containing Vegetable.
Box1, which is not placed on the top, contains Fruit.
Candy box is placed above Chocolate box

## Inference:

Case2 eliminated as it does not fulfill the last hint.

| Case1 |  | Case2 <br> [Eliminated] |  |
| :---: | :---: | :---: | :---: |
| Box | Item | Box | Item |
| 5 | Dry fruit |  |  |
| 2 | Cutlery | 5 | Dry fruit |
|  | Candy | 2 | Cutlery |
|  | Vegetable |  | Candy |
| 4 | Chocolate |  | Vegetable |
| 1 | Fruit | 4 |  |

Therefore in absence of further hints, we cannot determine the box number of the boxes at third and fourth positions from top.

| Case1 |  |
| :---: | :---: |
| Box | Item |
| 5 | Dry fruit |
| 2 | Cutlery |
| $3 / 6$ | Candy |
| $3 / 6$ | Vegetable |
| 4 | Chocolate |
| 1 | Fruit |

## Answers:

21. If Box 3 contains Candy then 2 boxes are placed below Box 6 .

Hence option B is correct.
22. 3 boxes are placed between Cutlery box and Fruit box.

Hence option D is correct.
23. Second from bottom is the position of Chocolate box.

Hence option D is correct.
24. Box 5 contains Dry fruit.

Hence option A is correct.
25. Either Box 3 or Box 6 contains Candy.

Hence option D is correct.

## Common explanation : (Set - 6)

## Reference:

Eight boxes - P, Q, R, S, T, U, V and W are placed in an almirah of eight shelves. The bottom shelf is numbered one and the topmost shelf is numbered 8. Each of these boxes contain different amount of Sugar - $25 \mathrm{~kg}, 20$ $\mathrm{kg}, 17 \mathrm{~kg}, 10 \mathrm{~kg}, 8 \mathrm{~kg}, 5 \mathrm{~kg}, 2 \mathrm{~kg}$ and 1 kg but not necessarily in the same order.

## Inference:

We will keep this information in mind while solving the puzzle.

## Reference:

The box which was placed on $6^{\text {th }}$ shelf contained 10 kg of Sugar. $\qquad$ es S

## Inference:

Using the above hints, we have:

| Floor | Box | Weight |
| :---: | :---: | :---: |
| 8 |  |  |
| 7 |  |  |
| 6 |  | 10 Kg |
| 5 |  |  |
| 4 |  |  |
| 3 |  |  |
| 2 |  |  |
| 1 |  |  |

## Reference:

Box $R$ was not the lightest and Box $U$, was the heaviest.

There are three boxes between Box $U$ and Box $S$ and Box $S$ was placed below the shelf on which Box $U$ was placed.

T was placed immediately above the box which was heaviest.

## Inference:

Here, we have two possible scenarios in which we can use the above hints accordingly.

## Case 1:

| Floor | Box | Weight |
| :---: | :---: | :---: |
| 8 |  |  |
| 7 |  |  |
| 6 | T | 10 Kg |
| 5 | U | 25 Kg |
| 4 |  |  |
| 3 |  |  |
| 2 |  |  |
| 1 | S |  |

Case 2:

| Floor | Box | Weight |
| :---: | :---: | :---: |
| 8 | T |  |
| 7 | U | 25 Kg |
| 6 |  | 10 Kg |
| 5 |  |  |
| 4 |  |  |
| 3 | S |  |
| 2 |  |  |
| 1 |  |  |

Here, we will make a mental note of information that Box R was not the lightest.

## Reference:

Box $R$ was placed above the shelf on which Box $U$ was placed but not on the even numbered shelf. Box P, contained 20 kg of Sugar, and was placed either at the top or bottom shelf.

## Inference:

At this point we cannot use the above hints in case 2 so we can say that case $\mathbf{2}$ is an invalid case.

## Case 1:

| Floor | Box | Weight |
| :---: | :---: | :---: |
| 8 | P | 20 Kg |
| 7 | R |  |
| 6 | T | 10 Kg |
| 5 | U | 25 Kg |
| 4 |  |  |
| 3 |  |  |
| 2 |  |  |
| 1 | S |  |

## Reference:

Box Q was placed immediately below the box which contained 8 kg of Sugar and immediately above the box which contained 2 kg of Sugar.

## Inference:

Here, we have two possible scenarios in which we can use the above hints in case 1 accordingly.

## Case 1-A:

| Floor | Box | Weight |
| :---: | :---: | :---: |
| 8 | P | 20 Kg |
| 7 | R |  |
| 6 | T | 10 Kg |
| 5 | U | 25 Kg |
| 4 |  |  |
| 3 |  | 8 Kg |
| 2 | Q |  |
| 1 | S | 2 Kg |

## Case 1-B:

| Floor | Box | Weight |
| :---: | :---: | :---: |
| 8 | P | 20 Kg |
| 7 | R |  |
| 6 | T | 10 Kg |
| 5 | U | 25 Kg |
| 4 |  | 8 Kg |
| 3 | Q |  |
| 2 |  | 2 Kg |
| 1 | S |  |

## Reference:

Box $V$ was placed at one of the even numbered shelves and contained 17 kg of Sugar.

## Inference:

At this point we cannot fix the position of box $V$ according to the above hints in case $1-B$ so we can say that case 1-B is an invalid case.

## Case 1-A:

| Floor | Box | Weight |
| :---: | :---: | :---: |
| 8 | P | 20 Kg |
| 7 | R |  |
| 6 | T | 10 Kg |
| 5 | U | 25 Kg |
| 4 | V | 17 Kg |
| 3 |  | 8 Kg |
| 2 | Q |  |
| 1 | S | 2 Kg |

As we have already figured out that box R was not the lightest so we can say that box R contained 5 Kg of Sugar and box Q contained 1 Kg of Sugar.

## Case 1-A:

| Floor | Box | Weight |
| :---: | :---: | :---: |
| 8 | P | 20 Kg |
| 7 | R | 5 Kg |
| 6 | T | 10 Kg |
| 5 | U | 25 Kg |
| 4 | V | 17 Kg |
| 3 | W | 8 Kg |
| 2 | Q | 1 Kg |
| 1 | S | 2 Kg |

## Answers :

26. Following the final solution we can say that

Three boxes were placed above the box which contained 25 Kg of Sugar.
Hence, the correct answer is option D.
27. Following the final solution we can say that

Box Q contained 1 Kg of Sugar.

Hence, the correct answer is option B.
28. Following the final solution we can say that

Four boxes were placed between the box which contained 5 kg of Sugar and the box which contained 1 kg of Sugar.

Hence, the correct answer is option A.
29. Following the final solution we can say that
four boxes $2-\mathrm{Q}-1 \mathrm{Kg}$ is the correct combination.

Hence, the correct answer is option C.
30. Following the final solution we can say that

Box T is the one that does not belong to the group because of all the boxers given in the options Box $T$


Hence, the correct answer is option $\mathbf{E}$.

## Common explanation: (Set - 7)

## References:

Box $B$ is placed in even numbered position.
Four boxes are placed between Box F and Box B.
Box $B$ is placed above Box $F$.
Only two boxes are placed between the Box $H$ and Box $D$ in which Box $D$ is placed below Box $H$.
Box H is placed in odd numbered position.
Box H is not placed above Box B .

## Inferences:

From above statements,
Case 1: If $B o x B$ is placed at $8^{\text {th }}$ position and then Box $F$ is placed at $3^{\text {rd }}$ position. Box $H$ is placed at $7^{\text {th }}$ position and $B o x D$ is placed at $4^{\text {th }}$ position.

Case 1-A: If Box $B$ is placed at $8^{\text {th }}$ position and then $B o x F$ is placed at $3^{\text {rd }}$ position. Box $H$ is placed at $5^{\text {th }}$ position and Box $D$ is placed at $2^{\text {nd }}$ position.

Case 2: If Box $B$ is placed at $6^{\text {th }}$ position and then Box $F$ is placed at $1^{\text {st }}$ position. Box $H$ is placed at $5^{\text {th }}$ position and $B o x D$ is placed at $2^{\text {nd }}$ position.

Based on the above information, we get the initial table as follows,

| Case:1 |  | Case:1-A |  | Case:2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Box <br> position | Boxes | Box <br> position | Boxes | Box <br> position | Boxes |
| 8 | Box B | 8 | Box B | 8 |  |
| 7 | Box H | 7 |  | 7 |  |
| 6 |  | 6 |  | 6 | Box B |
| 5 |  | 5 | Box H | 5 | Box H |
| 4 | Box D | 4 |  | 4 |  |
| 3 | Box F | 3 | Box F | 3 |  |
| 2 |  | 2 | Box D | 2 | Box D |
| 1 |  | 1 |  | 1 | Box F |

## References:

Only one box is placed between the Box $G$ and Box $E$ in which Box $E$ is placed below Box $G$. Box $F$ is not placed above Box $A$.

## Inferences:

From above statements,
Case 1 \&2: Based on the above condition, there is no place for Box $G$ and Box E at a gap of 1 position. Hence, this case becomes invalid and it can be eliminated.
Case 1-A: Based on the above condition, Box G is placed at $6^{\text {th }}$ position and Box $E$ is $4^{\text {th }}$ position. Given, Box F is not placed above Box A. Therefore, Box $A$ is placed at $7^{\text {th }}$ position and Box $C$ is placed at $1^{\text {st }}$ position. Thus we get the completed table,

| Case:1 [Eliminated] | Case:1-A |  | Case:2 [Eliminated] |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Box <br> position | Boxes | Box <br> position | Boxes | Box <br> position | Boxes |
| 8 | Box B | 8 | Box B | 8 |  |
| 7 | Box H | 7 | Box A | 7 |  |
| 6 |  | 6 | Box G | 6 | Box B |
| 5 |  | 5 | Box H | 5 | Box H |
| 4 | Box D | 4 | Box E | 4 |  |
| 3 | Box F | 3 | Box F | 3 |  |
| 2 |  | 2 | Box D | 2 | Box D |
| 1 |  | 1 | Box C | 1 | Box F |

## Answers:

31. The following common explanation, we get "Box E".

Hence, option B is correct.
32. The following common explanation, we get "Box A".

Box $A$ is placed adjacent to Box $B$ and Box $G$
Hence, option A is correct.
33. The following common explanation, we get "Box $B$ is placed three boxes above Box $H$ ".

Hence, option D is correct.
34. In the following common explanation it is that boxH is placed between box G and box E ,

Hence, option C is correct.

35. In the following common explanation it is clear that the position of box $B$ is 8 th from the bottom.

Hence, option D is correct.

## Common explanation: (Set -8)

## References:

Box H 2 has 29 balls and placed in fifth rack.
There are two boxes are placed between Box H 5 and Box H 2 .
Box H 5 is placed immediately above the one box which has 27 balls.
There are as many as boxes placed between the box which has 29 balls and the box which has 27 balls is same as the box which has 29 balls and the box which has 31 balls.

## Inferences:

From above statements,

Box H 2 has 29 balls and placed in $5^{\text {th }}$ rack. Given, there are two boxes are placed between Box H 5 and Box H 2 . Therefore Box H 5 can place in either $8^{\text {th }}$ rack or $2^{\text {nd }}$ rack. So here we get two possibilities.

Case-1: Box H 2 has 29 balls and placed in $5^{\text {th }}$ rack. Box H 5 is placed in $8^{\text {th }}$ rack (2 boxes placed between Box H 2 and Box H 5 ). Given, Box H 5 is placed immediately above the one box which has 27 balls. Thus, the box which has 27 balls is placed in $7^{\text {th }}$ rack. Now as per last reference point, only one box is placed between the box which has 29 balls and the box which has 27 balls and then there must be only one box is placed between the box which has 29 balls and the box which has 31 balls i.e. the box which has 31 balls is placed in $3^{\text {rd }}$ rack.

Case-2: Box H 2 has 29 balls and placed in $5^{\text {th }}$ rack. Box H 5 is placed in $2^{\text {nd }}$ rack (2 boxes placed between Box H 2 and Box H 5$)$. Given, Box H 5 is placed immediately above the one box which has 27 balls. Thus, the box which has 27 balls is placed in $1^{\text {st }}$ rack. Now as per last reference point, three boxes are placed between the box which has 29 balls and the box which has 27 balls and then there must be only three boxes are placed between the box which has 29 balls and the box which has 31 balls. But it is not possible in this case and it can be eliminated.

By using above information we get the following initial table,

| Case-1 |  |  |  | Case-2 [Eliminated] <br> $4^{\text {th }}$ reference point not satisfied |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rack | Box | No. of balls | Rack | Box | No. of balls |  |
| 8 | Box H5 |  | 8 |  |  |  |
| 7 |  | 27 | 7 |  |  |  |
| 6 |  |  | 6 |  |  |  |
| 5 | Box H2 | 29 | 5 | BoxH2 | 29 |  |
| 4 |  |  | 4 |  |  |  |
| 3 |  | 31 | 3 |  | $\square$ |  |
| 2 |  |  | 2 | Box H5 |  |  |
| 1 |  |  | 1 |  | 27 |  |

## References:

Box H 6 is placed in even numbered rack.
There are three boxes are placed between Box H 6 and Box H 3 .
Box H 3 is not placed in the topmost position.

Box H 8 has 37 balls.
Neither Box H8 nor Box H1 is placed in lowermost position.
There are two boxes are placed between Box H 8 and Box H 1 .

## Inferences:

From above statements,

Note: Box H6 can't place in $4^{\text {th }}$ rack; if so there is no place for Box H3 i.e. three boxes are placed between Box H6 and Box H3 (Reference points 1 and 2)

Case-1: Box H 6 is placed in $6^{\text {th }}$ rack (even numbered rack) and Box H 3 is placed in $6^{\text {th }}$ rack ( 3 boxes are placed between Box H 6 and Box H 3 ). Now, Box H 8 (has 37 balls) is placed in $4^{\text {th }}$ rack (only possibility) since Box H 8 is not placed in $1^{\text {st }}$ rack. Finally, Box H 1 is placed in $7^{\text {th }}$ rack (only possibility) since Box H 1 is not placed in $1^{\text {st }}$ rack (note: 2 boxes are placed between Box H 8 and Box H 1 ). All the reference points get satisfied.

Case-1-A: Box H 6 is placed in $4^{\text {th }}$ rack (even numbered rack) and Box H 3 is placed in $2^{\text {nd }}$ rack ( 3 boxes are placed between Box H 6 and Box H 3 ). Now, Box H 8 (has 37 balls) is placed in $4^{\text {th }}$ rack (only possibility) since Box H 8 is not placed in $1^{\text {st }}$ rack. Finally, Box H 1 is placed in $7^{\text {th }}$ rack (only possibility) since Box H 1 is not placed in $1^{\text {st }}$ rack (note: 2 boxes are placed between Box H 8 and Box H 1 ). All the reference points get satisfied.

By using above information we get the following table,

| Case-1 |  |  | Case-1-A |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rack | Box | No. of balls | Rack | Box | No. of balls |
| 8 | Box H5 |  | 8 | Box H5 |  |
| 7 | Box H1 | 27 | 7 | BoxH1 | 27 |
| 6 | Box H6 |  | 6 | BoxH3 |  |
| 5 | Box H2 | 29 | 5 | BoxH2 | 29 |
| 4 | BoxH8 | 37 | 4 | BoxH8 | 37 |
| 3 |  | 31 | 3 |  | 31 |
| 2 | BoxH3 |  | 2 | BoxH6 |  |
| 1 |  |  | 1 |  |  |

## References:

Box H 7 is placed in odd prime numbered rack.

There are only three boxes are placed between the box which has 41 balls and the box which has 37 balls.
The one box which has 33 balls is placed immediately below the box which has 35 balls.
Box H 6 doesn't have 39 balls.

## Inferences:

From above statements,
Case-1: Box H 7 is placed in $3^{\text {rd }}$ rack (only possibility) i.e. odd prime numbered rack. Finally, Box H 4 (only box left among 8 ) is placed in $1^{\text {st }}$ rack (only rack left among 8 ). Given, there are only three boxes are placed between the box which has 41 balls and the box which has 37 balls. As per table, Box H 8 ( 37 balls) and Box H 5 ( 41 balls) are placed in $4^{\text {th }}$ and $8^{\text {th }}$ rack respectively (only possibility). Given the one box which has 33 balls is placed immediately below the box which has 35 balls. As per table, Box H3 ( 35 balls) and Box H 4 ( 33 balls) are placed in $2^{\text {nd }}$ and $1^{\text {st }}$ rack respectively (only possibility). Given, Box H 6 doesn't have 39 balls and then this case become invalid and it can be eliminated.

Case-1-A: Box H 7 is placed in $3^{\text {rd }}$ rack (only possibility) i.e. odd prime numbered rack. Finally, Box H 4 (only box left among 8) is placed in $1^{\text {st rack (only rack left among } 8 \text { ). Given, there are only three boxes are placed }}$ between the box which has 41 balls and the box which has 37 balls. As per table, Box H 8 ( 37 balls) and Box H 5 ( 41 balls) are placed in $4^{\text {th }}$ and $8^{\text {th }}$ rack respectively (only possibility). Given the one box which has 33 balls is placed immediately below the box which has 35 balls. As per table, Box H 6 ( 35 balls) and Box H 4 ( 33 balls) are placed in $2^{\text {nd }}$ and $1^{\text {st }}$ rack respectively (only possibility). Finally, Box H 3 has 39 balls (only possibility) and we get the completed table.

| Case-1 [Eliminated] <br> Box H6 doesn't have 39 balls |  |  | Case-1-A |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rack | Box | No. of balls | Rack | Box | No. of balls |
| 8 | Box H5 | 41 | 8 | Box H5 | 41 |
| 7 | BoxH1 | 27 | 7 | Box H1 | 27 |
| 6 | Box H6 |  | 6 | Box H3 | 39 |
| 5 | BoxH2 | 29 | 5 | Box H2 | 29 |
| 4 | Box H8 | 37 | 4 | BoxH8 | 37 |
| 3 | BoxH7 | 31 | 3 | Box H7 | 31 |
| 2 | BoxH3 | 35 | 2 | BoxH6 | 35 |
| 1 | BoxH4 | 33 | 1 | BoxH4 | 33 |

## Answers:

36. Following the common explanation, we get "Box-H3 has 39 balls and it is placed in 6th rack".

Hence, option A is correct.
37. Following the common explanation, we get "Three boxes".

Hence, option C is correct.
38. Following the common explanation, we get " 74 balls".

Box H5-41 balls (topmost) and Box H4-33 balls (lowermost)
Sum $=41+33=74$ balls

Hence, option D is correct.
39. Following the common explanation, we get "None is true".

Hence, option E is correct.
40. Following the common explanation, we get "Box H4-1st rack-33 balls".

Hence, option C is correct.

## Common explanation: (Set - 9)

## Reference:

Pink coloured box was placed below the Black coloured box, which was placed at the gap of 2 boxes below Purple coloured box.

## Inference:

Here, we have three possible scenarios in which the above hints can be used accordingly.

## Case 1:

Case 2:


| Box colour |
| :---: |
| Purple |
|  |
|  |
| Black |
| Pink |
|  |

## Case 3:

| Box colour |
| :---: |
| Purple |
|  |
|  |
| Black |
|  |
| Pink |

## Reference:

Pink coloured box was placed below Blue coloured box, which was placed immediately above the Green coloured box.

## Inference:

After, using the above hints, we have:

## Case 1:

| Box colour |
| :---: |
|  |
| Purple |
| Blue |
| Green |
| Black |
| Pink |

## Case 2:

Box colour

| Purple |
| :---: |
| Blue |
| Green |
| Black |
| Pink |
|  |

Case 3:


## Reference:

Red coloured box was not placed adjacent to Black coloured box.

Neither the Red nor Purple coloured box was placed at the bottom of the stack.

## Inference:

At this point we cannot fix the position of Red coloured box in case 2 and 3 according to the given hints so we can say that case $\mathbf{2}$ and case $\mathbf{3}$ are invalid cases.

## Case 1:

Box colour

| Red |
| :---: |
| Purple |
| Blue |
| Green |
| Black |
| Pink |

## Answers :

41. Following the final solution, we can say that Red coloured box was placed at a gap of two boxes from Green coloured box.

Hence, the correct answer is option D.
42. Following the final solution, we can say that there was no box between Pink and Black coloured box. Hence, the correct answer is option A.
43. Following the final solution, we can say that Red box placed at the top.

Hence, the correct answer is option B.
44. Following the final solution, we can say that the position of Purple coloured box is Second from the top or Fifth from bottom.

Hence, the correct answer is option C.
45. In the Following final solution it is clear that Black coloured box is placed even numbered box.

This statement is true.

Hence, the correct answer is option D.

## Common explanation: (Set - 10)

Step 1.

## References

....Only three boxes are kept between Indigo coloured box and box number 221...
...Only two boxes are kept between Indigo coloured box and Orange coloured box...
...Orange coloured box is kept somewhere below box number 221...
...Cyan coloured box is kept immediately below the box number 225...
...Cyan coloured box is kept at one of the positions above box number 221..

| 7 | 225 |  |
| :--- | :--- | :--- |
| 6 |  | Cyan |
| 5 | 221 |  |
| 4 |  | Orange |
| 3 |  |  |
| 2 |  |  |
| 1 |  | Indigo |

Step 2.

## References

...Only two boxes are kept between box number 151 and Blue coloured box...
...Yellow coloured box is not the topmost box...
...yellow coloured box number is not 121...
...Only two boxes are kept between Yellow coloured box and Red colour box...
...Only one box is kept between Orange coloured box and the box number 121...

| 7 | 225 |  |
| :---: | :---: | :---: |
| 6 | 151 | Cyan |
| 5 | 221 | Yellow |
| 4 |  | Orange |
| 3 |  | Blue |
| 2 | 121 | Red |
| 1 |  | Indigo |



Step 3.

## References

...There is only one box between Cyan coloured box and the box the number given to which is less than that given to Cyan coloured box...
...The difference between Blue coloured box and the box immediately below it is less than $80 .$. .

| 7 | 225 | Green |
| :---: | :---: | :---: |
| 6 | 151 | Cyan |
| 5 | 221 | Yellow |
| 4 | 101 | Orange |
| 3 | 191 | Blue |
| 2 | 121 | Red |
| 1 | 231 | Indigo |

## Answers :

46. By referring to the final seating arrangement chart, we get

| 7 | 225 | Green |
| :---: | :---: | :---: |
| 6 | 151 | Cyan |
| 5 | 221 | Yellow |
| 4 | 101 | Orange |
| 3 | 191 | Blue |
| 2 | 121 | Red |
| 1 | 231 | Indigo |

We can clearly observe that Except Red colour box-231, in all other pairs one box placed between them.

Hence, option E is correct.
47. By referring to the final seating arrangement chart, we get

| 7 | 225 | Green |
| :---: | :---: | :---: |
| 6 | 151 | Cyan |
| 5 | 221 | Yellow |
| 4 | 101 | Orange |
| 3 | 191 | Blue |
| 2 | 121 | Red |
| 1 | 231 | Indigo |



We can clearly observe that Green coloured box is first from the top.

Hence, option C is correct.
48. By referring to the final seating arrangement chart, we get

| 7 | 225 | Green |
| :---: | :---: | :---: |
| 6 | 151 | Cyan |
| 5 | 221 | Yellow |
| 4 | 101 | Orange |
| 3 | 191 | Blue |
| 2 | 121 | Red |
| 1 | 231 | Indigo |

We can clearly observe that indigo coloured box is numbered 231.

Hence, option D is correct.
49. By referring to the final seating arrangement chart, we get

| 7 | 225 | Green |
| :---: | :---: | :---: |
| 6 | 151 | Cyan |
| 5 | 221 | Yellow |
| 4 | 101 | Orange |
| 3 | 191 | Blue |
| 2 | 121 | Red |
| 1 | 231 | Indigo |

We can clearly observe that three boxes are kept between Cyan colour box and box number 121.

Hence, option C is correct.

50 By referring to the final seating arrangement chart, we get

| 7 | 225 | Green |
| :---: | :---: | :---: |
| 6 | 151 | Cyan |
| 5 | 221 | Yellow |
| 4 | 101 | Orange |
| 3 | 191 | Blue |
| 2 | 121 | Red |
| 1 | 231 | Indigo |



We can clearly observe that yellow coloured box number is 221 .

Hence, option B is correct.

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