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## Puzzle Test Questions for SBI PO Pre, IBPS PO Pre, IBPS Clerk Mains and SBI Clerk Mains Exams.

## Set No 109

## Directions: Study the following information carefully and answer the questions given beside:

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 H 3 . 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 H2 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 H 8 and Box H1. Neither Box H8 nor Box H1 is placed in lowermost position. Box H7 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.

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

A. The box placed in 6th rack
B. The box placed in 2nd rack
C. The box placed in 1st rack
D. The box placed in 7th rack
E. Cannot be determined
2. How many boxes are placed between Box H1 and Box H7?
A. One
B. Two
C. Three
D. Four
E. None
3. 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

## 4. 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

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

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

## Correct Answers:

| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :--- | :--- | :--- | :--- |
| A | C | D | E | C |

## Common explanation:

## 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 H5). Given, Box H5 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 | Box H2 | 29 |
| 4 |  |  | 4 |  |  |
| 3 |  | 31 | 3 |  |  |
| 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 H6 and Box H3.
Box H3 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 H6 and Box H3). Now, Box H8 (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 | Box H1 | 27 |
| 6 | Box H6 |  | 6 | Box H3 |  |
| 5 | Box H2 | 29 | 5 | Box H2 | 29 |
| 4 | Box H8 | 37 | 4 | Box H8 | 37 |
| 3 |  | 31 | 3 |  | 31 |
| 2 | Box H3 |  | 2 | Box H6 |  |
| 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 H6 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). 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 H5 ( 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 | Box H1 | 27 | 7 | Box H1 | 27 |
| 6 | Box H6 |  | 6 | Box H3 | 39 |
| 5 | Box H2 | 29 | 5 | Box H2 | 29 |
| 4 | Box H8 | 37 | 4 | Box H8 | 37 |
| 3 | BoxH7 | 31 | 3 | Box H7 | 31 |
| 2 | Box H3 | 35 | 2 | BoxH6 | 35 |
| 1 | BoxH4 | 33 | 1 | BoxH4 | 33 |

## Answers :

1. Following the common explanation, we get "Box-H3 has 39 balls and it is placed in 6th rack". Hence, option A is correct
2. Following the common explanation, we get "Three boxes".

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

Box $\mathrm{H} 5-41$ balls (topmost) and Box $\mathrm{H} 4-33$ balls (lowermost)

Sum $=41+33=74$ balls

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

Hence, option E is correct.

5. Following the common explanation, we get "Box H4-1st rack-33 balls".

Hence, option C is correct.

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