

## Puzzle test for SBI PO Mains and IBPS PO Mains Exams.

## PT Set No 162

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

Seven male professors- P, Q, R, S, T, U and X of a college published assignments for PHD work with the help of their wives $A, B, C, D, E, F$ and $H$ but not necessarily in the same order. All the couples live in a seven storey apartment. First floor is numbered one and second floor is numbered two and so on.

Total number of journals published by all the professors is two hundred and seven. Husband of C published an even number of projects. Only one person lives between Husband of $C$ and the person who published seventy nine assignments (project + journal). R lives immediately above the person who published seventy nine assignments (project + journal). Two persons live between R and husband of F. Husband of E published an odd number of journals. T published twenty four journals and doesn't live on either top or lowest floor. Husband of A published forty seven projects, but doesn't live on one of the floors below R. X is the husband of H who lives on the lowermost floor. P published sixteen journals. Total number of assignments (project + journal) published by Q is multiple of 9 , but he is not the husband of C . The journal published by the person who lives on third floor is six more than that of by the person who lives on fifth floor. E published 10 projects more than R's journal. Total assignments published by $P$ is not sixty three. Total assignments (project + journal) published by U is sixty seven. Total assignments (project + journal) published by husband of D is two more than the total assignments (project + journal) published by S. Total assignments published by Husband of H is twenty five and it is a sum of consecutive numbers. Total assignment spublished by Husband of $B$ is forty five, but number of projects published is greater than number of journals published. Two persons live between $R$ and husband of $F$.
Husband of F published 10 journals more than the husband of E . Husband of C doesn't live immediately below the person who published forty seven projects. Total number of projects published by all the professors is two hundred and sixty six.

## Conditions:

I. If the professor lives on an odd numbered floor, then he published even numbers of Journals and odd numbers of projects.
II. If the professor lives on an even numbered floor, then he published odd number of Journals and even number of Projects
III. Number of Journals and Projects together is known as Assignment.

## 1. How many assignments were published by Professor $\mathbf{Q}$ ?

A. 72
B. 63
C. 81
D. 99
E. 90
2. How many couples live between the person who published ninety nine assignments and the person who lives on the second floor of the building?
A. None
B. One
C. Two
D. Three
E. Four
3. 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. BP
B. FQ
C. CU
D. RA
E. DS
4. How many projects were published by the person who lives on the floor number 5?
A. 49
B. 57
C. 55
D. 51
E. 471
5. Which of the following combinations is true? [Person - No. of Journal - No. of Projects]
A. T-24-59
B. $U-37-28$
C. $Q-49-51$
D. $R-30-49$
E. P-16-29

Correct Answers:

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

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## References

All the couples live on seven storey apartment. First floor is numbered one and second floor is numbered two and so on.
If the professor lives on an odd numbered floor, then he published even numbers of Journals and odd numbers of Projects.
If the professor lives on an even numbered floor, then he published odd number of Journals and even number of Projects

After referring last two conditions we get common information regarding journals and projects which occupied in the apartment.

| Table - 1 |  |  |  |
| :---: | :---: | :---: | :---: |
| Floor Journals - No Projects - No |  |  |  |
| 7 | Even | Odd |  |
| 6 | Odd | Even |  |
| 5 | Even | Odd |  |
| 4 | Odd | Even |  |
| 3 | Even | Odd |  |
| 2 | Odd | Even |  |
| 1 | Even | Odd |  |

## References

X is the husband of H who lives on the lowermost floor.
Total assignments published by Husband of H is twenty five and it is a sum of consecutive numbers.
Total number of journals published by all the professors is two hundred and seven.
Total number of projects published by all the professors is two hundred and sixty six.

## Inference

Total Assignments [Journal + Projects] by XH couple $=25$
Given, Sum of two consecutive numbers $=25$
Only possible is, $12+13=25$ (two consecutive numbers)

XH (couple) lives in $1^{\text {st }}$ floor, then according to Table - 1
No. of Journals = 12 (even) \&
No. of Projects $=13$ (odd)
Total Journals (all 7 professors) $=207$

Total Projects (all 7 professors) $=266$

## Thus we get

| Floor | Couple |  | Journal | Projects | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | Female |  |  |  |
| 7 |  |  | Even | Odd |  |
| 6 |  |  | Odd | Even |  |
| 5 |  |  | Even | Odd |  |
| 4 |  |  | Odd | Even |  |
| 3 |  |  | Even | Odd |  |
| 2 |  |  | Odd | Even |  |
| 1 | X | H | Even - 12 | Odd - 13 | 25 |
| Total in Numbers | $\mathbf{2 0 7}$ | $\mathbf{2 6 6}$ |  |  |  |

## References

Husband of $C$ published an even number of projects.
Husband of E published an odd number of journals.
Husband of F published 10 journals more than the husband of E .
Only one person lives between Husband of $C$ and the person who published seventy nine assignments (project + journal).
R lives immediately above the person who published seventy nine assignments (project + journal). Two persons live between $R$ and husband of $F$.

## Inferences

| Sr.No | References/Possibility |
| :---: | :---: |
| 1. | Husband of C published an even number of projects. i.e. C [Husband] = No. of Projects (even no), according to table - 1 , She must live in even numbered floor $\left(2^{\text {nd }} / 4^{\text {th }} / 6^{\text {th }}\right)$ |
| 2. | Husband of $E$ published an odd number of journals. <br> i.e. E [Husband] = No of Journals( odd number), according to table - 1 , She must live in even numbered floor ( $\left.2^{\text {nd }} / 4^{\text {th }} / 6^{\text {th }}\right)$ |
| 3. | Husband of $F$ published 10 journals more than the husband of <br> i.e. F [Husband's No of Journal] $=10+E$ [Husband's No of Journal] <br> we know, E [Husband's No of Journal] = Odd number, Then Odd number $+10=$ Odd Number |
|  | F [Husband's No of Journal] $=10+$ odd number $=$ odd |


|  | number. Thus, according to table -1 , She must live in even <br> numbered floor $\left(2^{\text {nd }} / 4^{\text {th }} / 6^{\text {th }}\right)$ |
| :--- | :--- |
| 4. | Two person living between R and F \& One person Living <br> between C and Total Assignment $\quad=$ <br> R lives immediately above 79. |
| Clearly C, E and F [ and their Husbands] live in even numbered <br> floors <br> $\left(2^{\text {nd }} / 4^{\text {th }} / 6^{\text {th }}\right)$ <br> irrespectively. |  |

Based on the inference and references, we get two cases as follows,

|  |  |  | Case:1 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | uple |  |  |  |
|  | Male | Female |  |  |  |
| 7 |  |  | Even | Odd |  |
| 6 |  | F | Odd | Even |  |
| 5 |  |  | Even | Odd |  |
| 4 |  | C | Odd | Even |  |
| 3 | R |  | Even | Odd |  |
| 2 |  | E | Odd | Even | 79 |
| 1 | X | H | Even - 12 | Odd - 13 | 25 |
| Total in Numbers |  |  | 207 | 266 |  |


| Case:2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Floor | Couple |  | Journal | Projects | Total |
|  | Male | Female |  |  |  |
| 7 |  |  | Even | Odd |  |
| 6 |  | C | Odd | Even |  |
| 5 | R |  | Even | Odd |  |
| 4 |  | E | Odd | Even | 79 |
| 3 |  |  | Even | Odd |  |
| 2 |  | F | Odd | Even |  |
| 1 | X | H | Even - 12 | Odd - 13 | 25 |
| Total in Numbers | 207 | $\mathbf{2 6 6}$ |  |  |  |

## References

T published twenty four journals and doesn't live on either top or lowest floor.
P published sixteen journals.

## Inferences

$\mathrm{T}=24$ journals (even number) not living in $1^{\text {st }}$ or $7^{\text {th }}$ floor.
according to table - 1 , He must live in odd numbered floor( only $5^{\text {th }}$ floor left in case (1) \& $3^{\text {rd }}$ floor left in Case (2)
$\mathrm{P}=16$ journals (even number)
according to table -1 , He must live in odd numbered floor (only $7^{\text {th }}$ floor left in both cases)
Thus, we get the table as,

|  |  |  | Case:1 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | uple | Journ |  |  |
|  | Male | Female |  | Projects |  |
| 7 | P |  | Even - 16 | Odd |  |
| 6 |  | F | Odd | Even |  |
| 5 | T |  | Even - 24 | Odd |  |
| 4 |  | C | Odd | Even |  |
| 3 | R |  | Even | Odd |  |
| 2 |  | E | Odd | Even | 79 |
| 1 | X | H | Even-12 | Odd - 13 | 25 |
| Total in Numbers |  |  | 207 | 266 |  |


| Case:2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Floor | Couple |  | Journal | Projects | Total |
|  | Male | Female |  |  |  |
| 7 | P |  | Even - 16 | Odd |  |
| 6 |  | C | Odd | Even |  |
| 5 | R |  | Even | Odd |  |
| 4 |  | E | Odd | Even | 79 |
| 3 | T |  | Even - 24 | Odd |  |
| 2 |  | F | Odd | Even |  |
| 1 | X | H | Even - 12 | Odd - 13 | 25 |
| Total in Numbers |  |  |  |  |  |

## References

Husband of A published forty seven projects, but doesn't live on one of the floors below R.
Total assignments published by $P$ is not sixty three.
Husband of C doesn't live immediately below the person who published forty seven projects.

## Inferences



So, Clearly $A$ is wife of $R$ in both cases. They live in $3^{\text {rd }}$ floor (case 1 ) and $5^{\text {th }}$ floor (case 2)

Then we get the table as,


| 7 | P |  | Even -16 | Odd |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6 |  | F | Odd | Even |  |
| 5 | T |  | Even -24 | Odd |  |
| 4 |  | C | Odd | Even |  |
| 3 | R | A | Even | Odd -47 |  |
| 2 |  | E | Odd | Even | 79 |
| 1 | X | H | Even -12 | Odd -13 | 25 |
| Total in Numbers |  |  |  |  | $\mathbf{2 0 7}$ |
| $\mathbf{2 0 6}$ |  |  |  |  |  |


|  |  |  | Case:2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | uple |  |  |  |
|  | Male | Female |  |  |  |
| 7 | P |  | Even - 16 | Odd |  |
| 6 |  | C | Odd | Even |  |
| 5 | R | A | Even | Odd - 47 |  |
| 4 |  | E | Odd | Even | 79 |
| 3 | T |  | Even - 24 | Odd |  |
| 2 |  | F | Odd | Even |  |
| 1 | X | H | Even - 12 | Odd - 13 | 25 |
| Total in Numbers |  |  | 207 | 266 |  |

## References

Total assignment published by Husband of B is forty five, but number of projects published is greater than number of journals published.

## Inferences

| Total Assignment (Journal + Projects) by [ B \& Husband] = 45 Given, No. of Projects> No. of Journals |  |
| :---: | :---: |
| For Case: 1 ( Possible $5^{\text {th }}$ or $7^{\text {th }}$ floor) | For Case: 2 ( $3^{\text {rd }}$ or $7^{\text {th }}$ floor) |



Thus we get the table as,

| Case:1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Couple |  |  | Journal | Projects |
|  |  |  |  |  |  |
|  | Male | Female |  |  |  |
| 7 | P | B | Even - 16 | Odd - 29 | 45 |


| 6 |  | F | Odd | Even |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5 | T |  | Even -24 | Odd |  |
| 4 |  | C | Odd | Even |  |
| 3 | R | A | Even | Odd -47 |  |
| 2 |  | E | Odd | Even | 79 |
| 1 | X | H | Even -12 | Odd -13 | 25 |
| Total in Numbers |  |  |  |  |  |


| Case:2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Floor | Couple |  |  | Journal | Projects |
|  | Maletal | Female |  |  |  |
| 7 | P | B | Even - 16 | Odd - 29 | 45 |
| 6 |  | C | Odd | Even |  |
| 5 | R | A | Even | Odd - 47 |  |
| 4 |  | E | Odd | Even | 79 |
| 3 | T |  | Even - 24 | Odd |  |
| 2 |  | F | Odd | Even |  |
| 1 | X | H | Even-12 | Odd - 13 | $\mathbf{2 5}$ |
| Total in Numbers | $\mathbf{2 0 7}$ | $\mathbf{2 6 6}$ |  |  |  |

## References

Total number of assignments published by Q is multiple of 9 , but he is not the husband of C .
Total assignments (project + journal) published by U is sixty seven.

## Inferences

## SI.No References/Possibility

Total number of assignments published by $\mathbf{Q}$ is multiple of 9 , but he is not 1. the husband of C .
i. Q is not husband C. So he didn't live in 4th floor in Case (1) and 6th floor in

|  | Case (2). <br> ii. Q and Wife Total assignment is multiple of 9. So he didn't live in 2nd floor (case 1) and 4th floor in Case (2) [Note: Both of these floors Total is 79, which is not multiple of 9 ]. <br> iii. So $Q$ lives in 6th floor (case 1) and $Q$ lives in 2nd floor (case 2). <br> Clearly, $Q$ is husband of $F$ in both cases |
| :---: | :---: |
| 2 | Total assignment (project + journal) published by U is sixty seven. <br> Total assignment (project + journal) by U and wife $=67$ <br> Note: U can't live in $2^{\text {nd }}$ floor (case 1 ) and $4^{\text {th }}$ floor (case 2 ), since Total assignment 79 is occupied. <br> So only possible is, U lives in $4^{\text {th }}$ floor (case $\mathbf{1}$ ) and $\mathbf{6}^{\text {th }}$ floor (case $\mathbf{2}$ ). Clearly, U is husband of C in both cases |
|  |  |
| 4. | Now, if you see the cases, two slots are left in Male and Female column. |

Now, we get the table with all the couple living in apartments, as

| Case:1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Floor | Couple |  | Journal | Projects | Total |
|  | Male | Female |  |  |  |
| 7 | P | B | Even-16 | Odd - 29 | 45 |
| 6 | Q | F | Odd | Even |  |


| 5 | T | D | Even-24 | Odd |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4 | U | C | Odd | Even | 67 |
| 3 | R | A | Even | Odd - 47 |  |
| 2 | S | E | Odd | Even | 79 |
| 1 | X | H | Even - 12 | Odd - 13 | 25 |
| Total in Numbers |  |  |  |  |  |


|  |  |  | Case:2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | uple | Journal |  |  |
|  | Male | Female |  |  |  |
| 7 | P | B | Even-16 | Odd - 29 | 45 |
| 6 | U | C | Odd | Even | 67 |
| 5 | R | A | Even | Odd - 47 |  |
| 4 | S | E | Odd | Even | 79 |
| 3 | T | D | Even- 24 | Odd |  |
| 2 | Q | F | Odd | Even |  |
| 1 | X | H | Even-12 | Odd-13 | 25 |
| Total in Numbers |  |  | 207 | 266 |  |

## References

Total assignments (project + journal) published by husband of $D$ is two more than the total assignments (project + journal) published by S.
The journal published by the person who lives on third floor is six more than that of by the person who lives on fifth floor.
E published 10 projects more than R's journal.
Husband of F published 10 journals more than the husband of E .

## Inferences

| SI.No | References / Possibility - Calculation |
| :--- | :--- |

Note: In both the cases only floor is different for some couple, but their numbers distribution are same.

So we can calculate the values as common.

1

|  | Total assignment (project + journal) published by husband of $D$ is two more than the total assignment (project + journal) published by S. <br> i.e. Total assignment (project + journal) by [TD couple] $=2+$ Total assignment (project + journal) by [SE couple] <br> From above cases, <br> [SE Couple] Total Assignment = 79, then Total assignment (project + journal) by [TD couple] $=2+79=$ <br> 81 <br> We know, TD couple Total Journal $=24$, Then Total project $=81-24=57$ Clearly, (Both cases) |
| :---: | :---: |
| 2 | The journal published by the person who lives on third floor is six more than that of by the person who lives on fifth floor. <br> Given, No. of Journal( $3^{\text {rd }}$ floor) - No of Journal ( $5^{\text {th }}$ floor $)=6$ <br> No. of Journal(3 $3^{\text {rd }}$ floor) $=6+$ No of Journal ( $5^{\text {th }}$ floor) |
| 3. | E published 10 projects more than R's journal. Given, [SE couple's Total projects] = 10 + [RA couple's Journal] |



By filling all Numbers from above table we get cases as,

| Case:1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Floor | Couple |  | Journal | Projects | Total |
|  | Male | Female |  |  |  |
| 7 | P | B | Even-16 | Odd - 29 | 45 |
| 6 | Q | F | Odd-49 | Even |  |
| 5 | T | D | Even-24 | Odd - 57 | 81 |
| 4 | U | C | Odd | Even | 67 |
| 3 | R | A | Even-30 | Odd - 47 | 77 |


| 2 | S | E | Odd - 39 | Even -40 | 79 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | X | H | Even -12 | Odd - 13 | 25 |
| Total in Numbers |  |  |  |  | $\mathbf{2 0 7}$ |
| $\mathbf{2}$ | $\mathbf{2 6 6}$ |  |  |  |  |


|  |  |  | Case:2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | uple |  |  |  |
|  | Male | Female |  |  |  |
| 7 | P | B | Even - 16 | Odd - 29 | 45 |
| 6 | U | C | Odd | Even | 67 |
| 5 | R | A | Even - 18 | Odd - 47 | 65 |
| 4 | S | E | Odd - 51 | Even - 28 | 79 |
| 3 | T | D | Even-24 | Odd - 57 | 81 |
| 2 | Q | F | Odd-61 | Even |  |
| 1 | X | H | Even-12 | Odd-13 | 25 |
| Total in Numbers |  |  | 207 | 266 |  |

## References

Total number of assignments published by Q is multiple of 9 .

Inferences

|  | Case (1): To find [UC Couple] Journal: |
| :---: | :---: |
|  | Total No of Journal (7 Professors) $=207$ |
|  | Then, $16+49+24+[$ C couple's Journal] $+30+39+12=207$ |
|  | [UC couple - Journal] = 207-(170) $=37$ |
|  | [UC couple's Total Journal] = 37 |
|  | We know, [UC couple - Total Assignment] = 67 |
|  | [UC couple - Total projects] $=67-37=30$ |
|  | [UC couple's Total projects] $=30$ |
|  | Case (2): To find [UC Couple] Journal: |
|  | Total No of Journal (7 Professors) $=207$ |
|  | Then, $16+18+51+[$ [ C couple's Journal] $+24+61+12=207$ |
|  | [UC couple - Journal] $=207-(182)=25$ |
|  | [UC couple's Total Journal] = 25 |

```
We know, [UC couple - Total Assignment] \(=67\)
[UC couple - Total projects] \(=67-25=42\)
[UC couple's Total projects] = 42
```



| Case:1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Floor | Couple |  | Journal | Projects | Total |
|  | Male | Female |  |  |  |
| 7 | P | B | Even-16 | Odd - 29 | 45 |
| 6 | Q | F | Odd-49 | Even - 50 | 99 |
| 5 | T | D | Even-24 | Odd - 57 | 81 |
| 4 | U | C | Odd-37 | Even - 30 | 67 |


| 3 | R | A | Even - 30 | Odd - 47 | 77 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | S | E | Odd - 39 | Even - 40 | 79 |
| 1 | X | H | Even-12 | Odd - 13 | 25 |
| Total in Numbers |  |  | 207 | 266 |  |


|  |  | Case:2 <br> F total | [Eliminate multiple |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | uple |  |  |  |
|  | Male | emale |  | Projects |  |
| 7 | P | B | Even-16 | Odd - 29 | 45 |
| 6 | U | C | Odd - 25 | Even-42 | 67 |
| 5 | R | A | Even-18 | Odd - 47 | 65 |
| 4 | S | E | Odd - 51 | Even-28 | 79 |
| 3 | T | D | Even-24 | Odd - 57 | 81 |
| 2 | Q | F | Odd-61 | Even - 50 | 111 |
| 1 | X | H | Even-12 | Odd-13 | 25 |
| Total in Numbers |  |  | 207 | 266 |  |

Thus we get the final Table as,

|  |  |  | se:1 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | uple |  |  |  |
|  | Male | Female |  |  |  |
| 7 | P | B | 16 | 29 | 45 |
| 6 | Q | F | 49 | 50 | 99 |
| 5 | T | D | 24 | 57 | 81 |
| 4 | U | C | 37 | 30 | 67 |
| 3 | R | A | 30 | 47 | 77 |
| 2 | S | E | 39 | 40 | 79 |
| 1 | X | H | 12 | 13 | 25 |
| Total in Numbers |  |  | 207 | 266 | 473 |

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## Explanations:

1. The following common explanation, we get "Total Assignments QF couple $=49+50=99$ Assignments".

Hence, option D is correct.
2. The following common explanation, we get "Total Assignments 99 by couple QF lives in 6th floor and 2nd floor. So 3 couples".

Hence, option D is correct.
3. The following common explanation, we get " $D \& S$ are not husband and wife".

Remaining options consist of Husband and Wife.

Hence, option E is correct.
4. The following common explanation, we get "TD couple, 57 projects $\& 24$ Journal".

Hence, option B is correct..
5. The following common explanation, we get "P-16-29".

Hence, option E is correct.

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