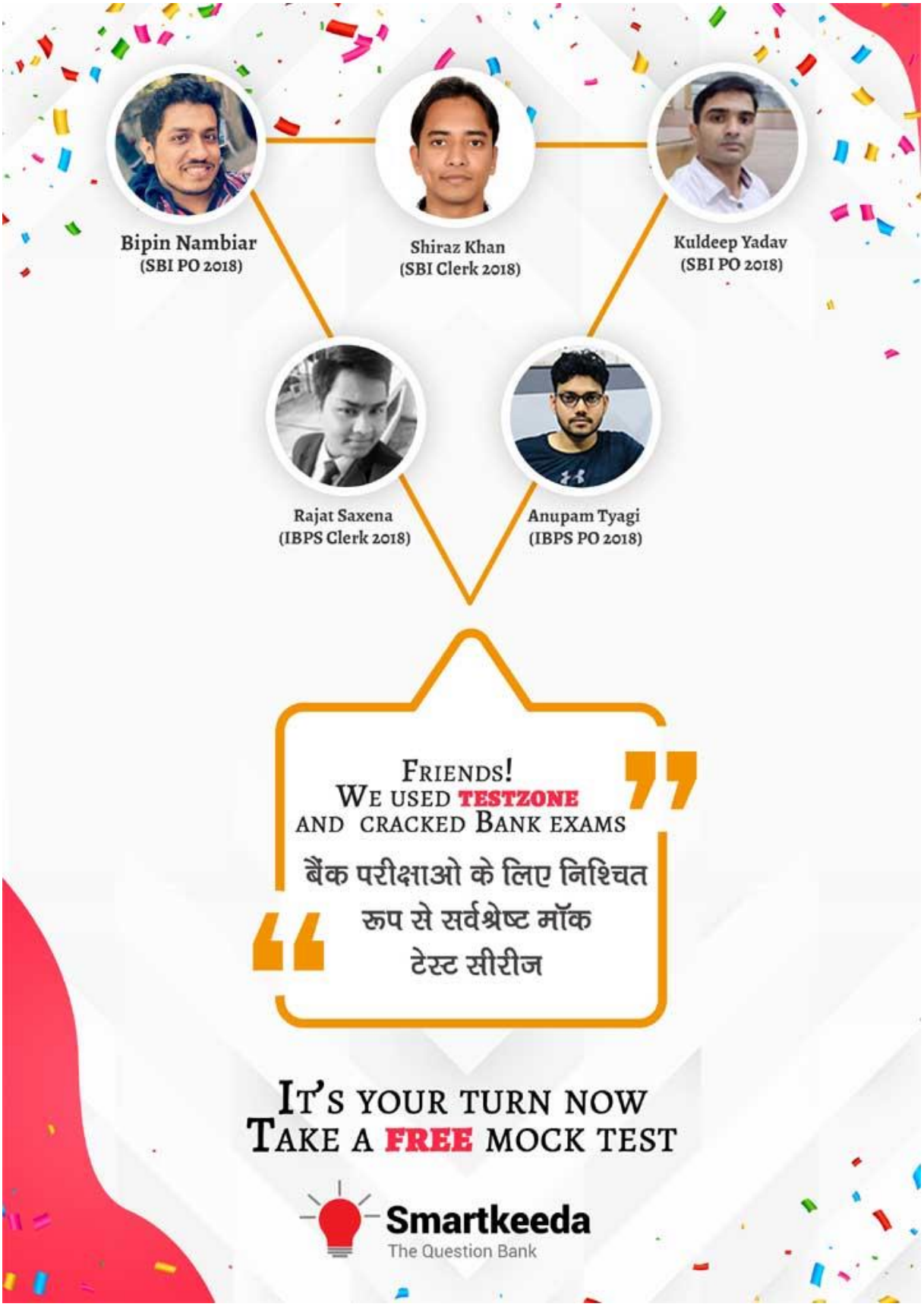
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# DI table Chart Questions for SBI PO Mains, IBPS PO Mains and RBI Grade B Exams.

## DI Table Chart No. 107

**Directions: Study the following tab le chart carefully and answer the questions given beside.**

It's a description about four friends Ram, Arun, Tahir, and Karan. They all go for running in parks near their society. Total three table charts show related information.

Name of the parks and the length of tracks on which they run. All tracks are circular.

Table-1

| Name of the park | Length of tracks(meter) |
|---|---|
| Sector-1 (S-1) | 400 |
| Sector-2 (S-2) | 300 |
| Sector-3 (S-3) | 500 |
| Sector-4 (S-4) | 250 |
| Sector-5 (S-5) | 600 |



Number of trips they make and time to make all correspondingly mentioned trips.

Table-2

| | Monday | | Tuesday | | Thursday | | Friday | |
|---|---|---|---|---|---|---|---|---|
| | Trips | time(min) | Trips | time(min) | Trips | time(min) | Trips | time(min) |
| **Ram** | 6 | 10 | 4 | 12 | 8 | 16 | 4 | 10 |
| **Arun** | 3 | 10 | 4 | 18 | 6 | 15 | 5 | 20 |
| **Tahir** | 5 | 10 | 5 | 15 | 7 | 21 | 4 | 16 |
| **Karan** | 2 | 8 | 6 | 12 | 5 | 20 | 3 | 12 |

**Note:** On a particular day, no two person will go to same park until the question says so. Speed of any of them could be same or different any day in any park. Don't assume same as previous day until question says so.

Weekly plan for who will go to which park on a particular day.

Table-3

| | Monday | Tuesday | Thursday | Friday |
|---|---|---|---|---|
| **Ram** | __ | S-3 | S-4 | S-4 |
| **Arun** | __ | S-5 | S-2 | S-3 |
| **Tahir** | __ | S-1 | S-3 | S-5 |
| **Karan** | __ | S-2 | S-5 | S-1 |

**1.** **The options show name of all the person along with the park in which he ran. Out of the given options, which combination would be such that all the four person ran with same speed in their respective park on Monday?(Answer to this question will fill blank space in table-3.)**

A. Ram – S-1, Arun– S-3, Tahir– S-5, and Karan– S-4
B. Ram – S-2, Arun– S-1, Tahir– S-3, and Karan– S-4
C. Ram – S-4, Arun– S-3, Tahir– S-5, and Karan– S-2
D. Ram – S-4, Arun– S-3, Tahir– S-2, and Karan– S-5
E. None of these

**2.** **Consider they plan a game for a week. Nothing will be changed in this game except for assigning a sequence of running. In this game, all are connected through electronic device, and when the first person stops in his park after making the planned trips for that day, the second person starts on knowing it through the device in whichever park he is, and when the second stops after making all the planned trips for that day, the third starts, and so on. Assume time consumed in passing the information is negligible. If we divide the total distance all the four persons ran on a day with total time they took to finish this game on that day we get a number, call it 'common speed'. On which day the common speed is lowest?**

A. Tuesday
B. Monday
C. Friday
D. Thursday
E. B and C both



**3.** **They all decide to run on same track on Saturday. This is a new track and its length is 1000meters. Ram and Tahir run with speeds with what they ran on Tuesday while Arun and Karan run with speed with what they ran on thursday. They all start together from same line and stop after 5 minutes. The point where they stop is noted and the distance from this point to the other end of the track is measured for all the four persons. Average of these measurement would be?**

A. 287.5 meter
B. 275.5 meter
C. 257.5 meter
D. 387.5 meter
E. None of these

**4.** **They plan running on Wednesday. Ram and Karan exchanged their parks, and Tahir and Arun exchanged with each other. All of them ran for same time as they ran on Tuesday, and number of trips were also same as that on Tuesday. Means, if Ram make n trips on Tuesday in T minutes then he again made n trips on Wednesday in T mintues. Which of the options give the best arrangement with respect to speed on Wednesday?**

A. Karan > Tahir > Arun > Ram
B. Karan > Tahir > Ram > Arun
C. Tahir > Karan > Ram > Arun
D. Karan > Arun = Tahir > Ram
E. None of these

**5.** **For a week, Ram's younger brother also joins. He goes with Karan on Tuesday, with Ram on Thursday, and with Tahir on friday. He is more energetic so makes one more trip for each two trips the person running with him makes. Time taken by both the people is equal. Means if Ram's brother goes with Tahir and Tahir run for T minutes then Ram's brother also run for T minutes. Choose the option which gives his average speed (approx.) for three the days.**

A. 211 meter/minute
B. 320 meter/minute
C. 361 meter/minute
D. 232 meter/minute
E. None of these

**Correct Answers:**

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| D | C | A | B | A |

## Common Explanations :

We calculate all the distance they ran on a particular day according to given plan.

For the rest we will calculate from

distance = the number of trips x length of the track on which the particular person ran.

For example, Ram on Tuesday ran in park S-3 and made 4 trips. Length of S-3 is 500 meters so,

distance = 4 × 500 = 2000meters.

Similarly, other values can be calculated easily. Here the table gives all those values:

All distance in meters –

| | Monday | Tuesday | Thursday | Friday |
|---|---|---|---|---|
| **Ram** | 1500 | 2000 | 2000 | 1000 |
| **Arun** | 1500 | 2400 | 1800 | 2500 |
| **Tahir** | 1500 | 2000 | 3500 | 2400 |
| **Karan** | 1200 | 1800 | 3000 | 1200 |

## Answers :

**1.** From the common explanation, we have

We verify each option one by one as follows.

In option D, Ram run in S-4. It has a length of 250 meters. Number of trips he makes = 6, so the distance he covers is = 6 × 250 = 1500 meters. Time he took 10min,

so his speed is $\frac{1500}{10}$ = 150 m/min

Similarly, for Arun run in S-3. It has a length of 500 meters. Number of trips he makes = 3, so the distance he covers is = 3 × 500 = 1500 meters. Time he took 10min,

so his speed is $\frac{1500}{10}$ = 150 m/min

Similarly, for Tahir run in S-2. It has a length of 300 meters. Number of trips he makes = 5, so the distance he covers is = 5 × 300 = 1500 meters. Time he took 10min,

so his speed is $\frac{1500}{10}$ = 150 m/min



Karan run in S-5. It has a length of 600 meters. Number of trips he makes = 2, so the distance he covers is = 2 × 600 = 1200 meters. Time he took 8min,

so his speed is $\frac{1500}{8}$ = 150 m/min

In the same way when we calculate for other option we see they don't give same speed for all the persons.

Therefore, right combination is

Ram – S-4, Arun– S-3, Tahir– S-2, and Karan– S-5

Hence, option D is correct.

**2.** From the common explanation, we have

Consider Monday, the distance in this game they will run is sum of all the individual distances they ran. So we have from common explanation:

On Monday, distance = 1500 + 1500 +1500 + 1200 = 5700 meter

from table-2, Total time = 10 + 10 + 10 + 8 = 38 min

$$\text{common speed} = \frac{\text{the total distance all the four persons ran}}{\text{total time to finish this game}}$$

$$= \frac{5700}{38} = 150$$

For Tuesday, distance = 2000 + 2400 + 2000 + 1800 = 8200 meter

from table-2, total time = 12 + 18 + 15 + 12 = 57 min

$$\text{common speed} = \frac{8200}{57} = 143.8 \text{ meter/min}$$

For Thursday, distance = 2000 + 1800 + 3500 + 3000 = 10300 meter

from table-2, total time = 16 + 15 + 21 + 20 = 72 min

$$\text{common speed} = \frac{10300}{72} = 143.1 \text{ meter/min}$$

For Friday, distance = 1000 + 2500 + 2400 + 1200 = 7100 meter

from table-2, total time = 10 + 20 + 16 + 12 = 58 min

$$\text{common speed} = \frac{7100}{58} = 122.4 \text{ meter/min}$$

It can easily be seen that common speed is least in Friday.

Hence, option C is correct.

**3.** From common explanation, we see distance Ram and Tahir ran on tuesday is same 2000 meter for both. The time they took to cover this distance we see from table-2, Ram took 12 min while Tahir took 15 min.

Thus speeds of Ram and Tahir on tuesday is 2000/12 meter/min and 2000/15 meter/min respectively.

They run for 5 minutes new track on sunday, so the distance they cover in this time would be

$$\text{Ram} = \frac{5 \times 2000}{12} \text{ meter} = \frac{5000}{6} \text{ meter}$$

$$\text{Tahir} = \frac{5 \times 2000}{15} \text{ meter} = \frac{2000}{3} \text{ meter}$$

Similarly, for Arun and Karan, we have distance covered on thursday is 1800 meter and 3000 meter respectively. The time taken for this we see from table-2.

Distance cover on new track in 5 minutes for both of them on sunday would be

$$\text{Arun} = \frac{5 \times 1800}{15} = 600 \text{ meter}$$

$$\text{Karan} = \frac{5 \times 3000}{20} = 750 \text{ meter}$$



For Ram, the distance between where he stopped and the finish line would be

$$= 1000 - \frac{5000}{6} = \frac{1000}{6}$$

$$\text{Similarly, for Tahir} = 1000 - \frac{2000}{3} = \frac{1000}{3}$$

for Arun = 1000 – 600 = 400

for Karan = 1000 – 750 = 250

Sum of all these measurements

$$= \frac{1000}{6} + \frac{1000}{3} + 400 + 250 = 1150$$

$$\text{Average} = \frac{1150}{4} = 287.5 \text{ meter}$$

Hence, option A is correct.

**4.** From the common explanation, we have

Ram on Tuesday was in S-3, so Karan on Wednesday goes to S-3, while Karan on Tuesday was in S-2 so Ram on Wednesday goes to S-2. Similarly, Tahir and Arun on Wednesday goes to S-5 and S-1 respectively.

Other things like time and number of trips for Wednesday is same as Tuesday. So we write all the information as follows –

| | Tuesday | Wednesday | Length | Trips | Time | Speed |
|---|---|---|---|---|---|---|
| Ram | S-3 | S-2 | 300m | 4 | 12min | 300 × 4/12 = 100m/min |
| Karan | S-2 | S-3 | 500m | 6 | 12min | 500 × 6/12 = 250m/min |
| Tahir | S-1 | S-5 | 600m | 5 | 15min | 600 × 5/15 = 200m/min |
| Arun | S-5 | S-1 | 400m | 4 | 18min | 400 × 4/18 = 88.8m/min |

Order of name by speed,
Karan > Tahir > Ram > Arun

Hence, option B is correct.



**5.** From the common explanation, we have

Karan on Tuesday make 6 trip in 12 minutes in S-2 park which has a length of 300 meters.

So Ram's brother will also go in same park. Karan make 6 = 2 + 2 + 2 trips, so Ram's brother make one more for each 2 of Karan. Thus Ram's brother will make 3 + 3 + 3 = 9 trips.

Total distance he ran in S-2 = 300 × 9 meter

Time he took = 12min

Ram on Thursday in S-4 park in 16 minutes makes 8 trips = 2 + 2 + 2 + 2, his brother will make 3 + 3 + 3 + 3 = 12 trips.

Total distance he ran in S-4 = 250 × 12 meter

Tahir on Friday in S-5 park in 16 minutes makes 4 trips = 2 + 2, his brother will make 3 + 3 = 6 trips.

Total distance he ran in S-5 = 600 × 6 meter
Total distance his brother ran = 300 × 9 + 250 × 12 + 600 × 6 = 9300 meter
Total time he took = 12 + 16 + 16 = 44 minutes
average speed = $\frac{9300}{44}$ = 211.4 m/min
Hence, option A is correct.