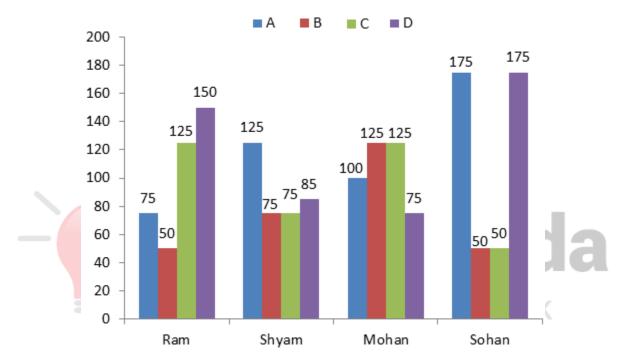


# DI Bar Chart Questions for SBI PO Mains, IBPS PO Mains and RBI Grade B Exams.

#### DI Bar Chart No 62

Directions: Study the following bar chart carefully and answer the questions given beside.

Among four persons – Ram, Shyam, Mohan, and Sohan – each does four different tasks A, B, C, and D. The individual efficiency (in units/hr) of each person to complete the tasks (A, B, C or D) is given in the chart below:



1. Ram and Shyam work for two hours each on a given day. They have to do each of the four work such that they do equal units of each work, i.e. if Ram (or Shyam) does 100 units of work then it has to be 25 units each of A, B, C, and D. What is the ratio of the maximum units of work that Ram and Shyam can do respectively in the given time?

A. 1123:1207

B. 1184: 1309

C. 763:893

D. 976: 1013

E. 1027:1123

2. If 1500 units each of A, B, C, and D are required to be done then who among the following while working alone will take the least time to complete the work?

A. Ram

B. Shyam

C. Mohan

D. Sohan

E. Shyam and Mohan both

3. If the respective ratio of the total number of units of work of B and C is 3:2 and the average of the total number of units of work B and C is 1250 units. Find the difference between the total time taken by Ram and Shyam to finish the tasks B and C individually and the time taken by Mohan and Sohan together to complete the same tasks individually? (approximately)

A. 1.33 hours

B. 1.15 hours

C. 1 hour

D. 40 minutes

E. 1.5 hours

4. If Ram, Shayam, Mohan and, Sohan all work alone for 1 hours and spend equal amount of time on each work then what is the absolute difference between the average of total number of units done by Ram and Shayam together and the average of total number of units of work done by Mohan and Sohan together?

A. 24.125

B. 12.275

C. 14.375

D. 15.25

E. 24.175

5. A work of 300 units which is similar to A is such that it has to be finished within 3 hours. The work is sensitive that if it is done more than 2 units each minute then it gets destroyed. Find who among the four can do such work on within time without destroying it.

A. Ram

B. Shyam

C. Mohan

D. Sohan

E. Shyam and Sohan both

The Question Bank

#### **Correct Answers:**

1	2	3	4	5
В	С	Α	С	С



### **Explanations:**

**1.** Ram and Shyam work for 2 hours.

Let Ram do 4y units of work then according to the question he will do y units of each work then

$$\frac{y}{75} + \frac{y}{50} + \frac{y}{125} + \frac{y}{100} = 2$$

$$\frac{y}{25} \times (\frac{1}{3} + \frac{1}{2} + \frac{1}{5} + \frac{1}{4}) = 2$$

$$\frac{y}{25} \times \frac{77}{60} = 2$$

$$y = \frac{2 \times 25 \times 60}{77} = \frac{3000}{77}$$

Similarly, we find for Shyam =  $\frac{50 \times 15 \times 17}{296}$ 

Ratio = 
$$\frac{3000}{77} : \frac{50 \times 15 \times 17}{296} = 1184 : 1309$$

Hence, option B is correct.

**2.** Calculating time for Ram

$$= \frac{1500}{75} + \frac{1500}{50} + \frac{1500}{125} + \frac{1500}{150} = 72 \text{ hours}$$

In this way we calculate for each and find for Mohan to be 59 hours which is least.

Hence, option C is correct.



#### **3.** Let there be 3n and 2n units of work of B and C respectively, then

$$3n + 2n = 1250 \times 2$$

$$n = 500$$

Time taken by Ram and Shyam individually:

$$\frac{1500}{50} + \frac{1500}{75} + \frac{1000}{125} + \frac{1000}{75} = 71.33 \text{ hours}$$

Time taken by Mohan and Sohan individually:

$$\frac{1500}{125} + \frac{1500}{50} + \frac{1000}{125} + \frac{1000}{50} = 70 \text{ hours}$$

Hence, option A is correct.

# If they spend equal amount of time on each work then they will spend $\frac{60}{4} = 15 \text{ minutes on each work.}$

Ram work for 15 minutes i.e. 1/4 hour on each work then total number of units of work are done by him

$$\frac{75}{4} + \frac{50}{4} + \frac{125}{4} + \frac{150}{4} = \frac{400}{4} = 100 \text{ units}$$

Similarly, calculating for rest of the three, we get

Ram and Shyam average = 
$$\frac{100 + 90}{2}$$
 = 95 units

Mohan and Sohan average = 
$$\frac{106.25 + 112.5}{2}$$
 = 109.375 units

Difference = 
$$109.375 - 95 = 14.375$$
 units

**5.** The 300 unit work has to be finished in 3hours, means

100 unit in 1 hour.

If we look at the chart, we see except Ram, everyone can finish this work within time.

But,

Each hour, the work cannot be done more than  $2 \times 60 = 120$  units.

If we look at the chart, Shyam and Sohan do more than 120 units each hour, which will destroy the work.

So, only Mohan can finish the work within time without destroying it.

Hence, option C is correct.







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