

Trigonometry Questions Overview

Trigonometry Questions have a good weightage in the Banking Exam and the type of question asked in Banking exam is similar to the question mentioned below. It has been solved and explained by Gargi.ai Experts and they have tried to elaborate the concept used in Trigonometry Questions.

Trigonometry Questions

Directions: Study the following paragraph carefully & answer the question given below. There are 1000 students in a college. Out of 1000 students some appeared in exams 'X', 'Y' and 'Z' while some not. Number of student not appeared in any exam is equal to number of students appeared in exam 'Z' only. Number of students appeared in exam 'Y' is 360. Ratio of number of students appeared in exam 'X' and 'Y' only to number of students appeared in exam 'Y' and 'Z' only is 2 : 3. Number of student appeared in exam 'X' and 'Z' both is half of number of students appeared in only exam 'Z'. Number of students appeared in exam 'X' only is 50% more than number of students appeared in 'Y' only. Number of students appeared in all the three exam is 4% of the total number of students in the college. Number of students appeared in 'Y' exam only is same as number of students appeared in 'Y' and 'Z' only. 56. How many students appeared in at least two exams?

Question

How many students appeared in exam X or in exam Z?

Difficulty : Moderate

Average Time : 82 Seconds

Options :

1. 240
2. 360
3. 500
4. 680
5. 760

Solution

The correct answer is **option 4** i.e. **680**

Total students = 1000 Let, students appear in exam Z only = a
 Total students appeared in exam Y = 360
 Ratio of number of students appeared in exam X and Y only to students appeared in exam Y and Z only = 2 : 3
 Students appeared in exam X and Z both = $a/2$

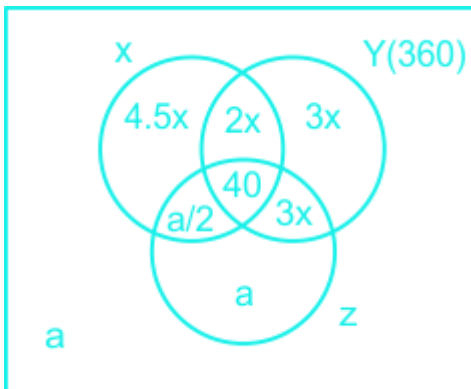
Number of students appeared in all three exams = $4/100 \times 1000 = 40$

Number of students appeared in Y exam only = No. of students appeared in Y and Z only = $3x$

Number of students appeared in exam X and Y only

$$= \frac{2}{3} \times 3 = 2x$$

1000



Now, $2x + 3x + 3x + 40 = 360$

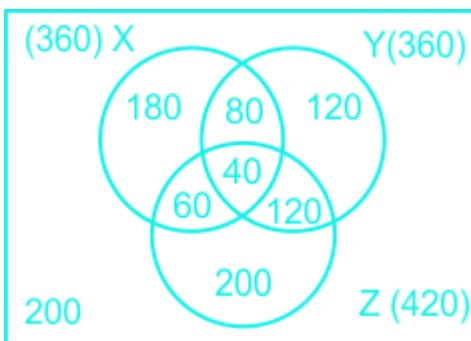
$$x = 40$$

and, $12.5x + a + a/2 + a = 1000$

$$5a/2 = 500$$

$$a = 200$$

1000



Students appeared in exam X or in exam Z

$$= 180 + 60 + 40 + 80 + 200 + 120$$

$$= 680$$

