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| Subject | Mathematics |
| Topic | Linear Algebra |
| 1 | In the given diagram, teachers are represented in the triangle, researchers in the circle and administrators in the rectangle. Out of the total number of the people, the percentage of administrators shall be in the range of \_\_\_\_\_\_\_\_\_  https://www.geeksforgeeks.org/wp-content/uploads/gate2019-1.png |
| A | 0 to 15 |
| B | 16 to 30 |
| C | 31 to 45 |
| D | 46 to 60 |
| Correct Answer | D |
| Solution | No of administrator,  = 10+20+20  = 50  Total no of person,  = 80+20+20+40  = 160  Percentage of administrators,  = (50/160)\*100  = 31.25 %  Note that question ask percentage of administrators belongs in given range. Since 31.25 percent is belong in 31 to 45 range. So, option (C) is correct. |
| Video Solution | <http://egatetutor.in/> |
| Subject | Mathematics |
| Topic | Sets, Theory and Partition |
| 2 | In a college, there are three student clubs, Sixty students are only in the Drama club, 80 students are only in the Dance club, 30 students are only in Maths club, 40 students are in both Drama and Dance clubs, 12 students are in both Dance and Maths clubs, 7 students are in both Drama and Maths clubs, and 2 students are in all clubs. If 75% of the students in the college are not in any of these clubs, then the total number of students in the college is \_\_\_\_\_\_\_\_\_\_\_\_\_.  A screenshot of a computer  Description automatically generated |
| A | 1000 |
| B | 975 |
| C | 900 |
| D | 225 |
| Correct Answer | A |
| Solution | Note that given 2 students are in all clubs so these are common in given each two group. After deducting 2, the Venn diagram is,https://www.geeksforgeeks.org/wp-content/uploads/Club-1-1.png  Therefore, total number of students participating in any of these clubs,  = 60 + 80 + 30 + 38 + 2 + 10 + 5  = 225  Given only these are only 25% of the total number of students in the college (75% of the students in the college are not in any of these clubs.).  Therefore, total number of students in the college,  x\*0.25 = 225  = 225/0.25  = 900  So, option (C) is correct. |
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