# Surprise Quant sectional Test 8 

Quant Quiz-DATA INTERPRETATION (Language based D.I.) Directions (Q. Nos. 1-7) Study the following information carefully to answer the questions.

In a medical college there are 1600 students studying Dentistry and Homeopathy. Each student from each course knows one or more languages out of English, Hindi and Bangla. 45\% of the students study Dentistry and remaining students study Homeopathy. Out of the students studying Dentistry, boys and girls are in the ratio of 5:3 respectively.Out of the boys studying Dentistry, $16 \%$ know English, $10 \%$ know only Hindi and 4\% know only Bangla. 24\% know English as well as Hindi. 20\% know English as well as Bangla. 14\% know Hindi as well as Bangla. Remaining boys know all three languages. Out of the girls studying Dentistry, 20\% know only English, 10\% know only Hindi and $10 \%$ know only Bangla . 20\% know English as well as Hindi. 20\% know English as well as Bangla. 10\% know Hindi as well as Bangla . Remaining girls know-all three languages. Out of the students studying Homeopathy boys and girls are in the ratio of 4 : 7 respectively. Out of the boys studying Homeopathy, $20 \%$ know only English, $15 \%$ know only Hindi and $5 \%$ know only Bangla. $15 \%$ know English as well as Hindi. 25\% know English as well as Bangla. 10\% know Hindi as well as Bangla. Remaining boys know all three languages. Out of the girls studying Homeopathy, $15 \%$ know only English, $15 \%$ know only Hindi and 5\% know only Bangla. 20\% know English as well as Hindi. 20\% know English as well as Bangla. 15\% know Hindi as well as Bangla. Remaining girls know all three languages.
1.How many students studying Dentistry know only either English or Hindi?
(1) 166
(2) 162
(3) 308
(4) 198
(5) 248
2.Total how many students in the college know all three languages?
(1) 108
(2) 132
(3)169
(4) 137
(5) 142
3. What percent of the total number of girls in the college know Bangla?
(1) 45
(2) 40
(3) 48
(4) 42
(5) 50
4.How many students studying Homeopathy, do not know English?
(1) 292
(2) 232
(3) 228
(4) 298
(5) 207
5.Out of the students studying Homeopathy, what is the ratio between number of boys knowing English and the number of girls knowing Hindi respectively?
(1) $3: 5$
(2) $2: 3$
(3) $9: 11$
(4) $9: 13$
(5) $1: 3$
6.Out of the total number of students studying Dentistry, what percent knows at least two languages?
(1) $6112 / 13$
(2) $5713 / 16$
(3) $5913 / 17$
(4) $661 / 4$
(5) $6212 / 19$
7. What percent of the total number of girls in the college do not know Hindi? (rounded off to nearest integer)
(1) 38
(2) 46
(3) 48
(4) 36
(5) 43
8.Pavan builds an overhead tank in his house, which has three taps attached to it. While the first tap can fill the tank in 12 hours, the second one takes one and a half times more than the

## Surprise Quant sectional Test 8

first one to fill it completely. A third tap is attached to the tank which empties it in 36 hours. Now one day, in order to fill the tank, Pavan opens the first tap and after two hours opens the second tap as well. However, at the end of the sixth hour, he realizes that the third tap has been kept open right from the beginning and promptly closes it. What will be the total time required to fill the tank?
A. 8 hours 48 minutes
B. 9 hours 12 minutes
C. 9 hours 36 minutes
D. 8 hours 30 minutes
9. $40 \%$ of the employees in a factory are workers. All the remaining employees are executives. The annual income of each worker is Rs. 390. The annual income of each executive is Rs. 420. What is the average annual income of all the employees in the factory together?
A. 390
B. 405
C. 408
D. 415
10. In a set of three numbers, the average of first two numbers is 2 , the average of the last two numbers is 3 , and the average of the first and the last numbers is 4 . What is the average of three numbers?

## A. 2

B.2.5
C. 3
D.3.5
D.None of these
13. $9 \quad 17 \quad 65 \quad 385 \quad 3073$ ?
(a) 40704
(b) 73251
(c) 65506
(d) 38521
(e) 30721
14. $25 \quad 241 \quad 584 \quad 1096 \quad 1825$ ?
(a) 2625
(b) 2525
(c) 2725
(d) 2825
(e) 2025
15. $50 \quad 25 \quad 37.5 \quad 93.75 \quad 328.125 \quad$ ?
(a) 1656.6525
(b) 1476.5625
(c) 1576.6225
(d) 2025.5625
(e) None of these
11.A vendor sells 60 percent of apples he had and throws away 15 percent of the remainder. Next day he sells 50 percent of the remainder and throws away the rest. What percent of his apples does the vendor throw?
A. 17
B. 23
C. 77
D.None of these
12.When processing flower-nectar into honeybees' extract, a considerable amount of water gets reduced. How much flower-nectar must be processed to yield 1 kg of honey, if nectar contains $50 \%$ water, and the honey obtained from this nectar contains $15 \%$ water?
A. 1.5 kgs
B.1.7 kgs
C. 3.33 kgs

Solutions:
Ans.(1-7)

| Students in Dentistry $=45 \%$ of $1600=720$ |  | Students in Homeopathy $=1600-720=880$ |  |
| :---: | :---: | :---: | :---: |
| Number of boys $=\frac{5}{8} \times 720=450$ | Number of giris $=\frac{3}{8} \times 720=270$ | Number of boys $=\frac{4}{11} \times 880=320$ | Number of giris $=\frac{7}{11} \times 880=560$ |
| $\ln$ Eng $=16801450=72$ | In Eng $=205001270=54$ | $\ln$ Eng $=20 \% 00{ }^{\text {a }} 30=64$ | $\ln$ Eng $=15 \% 01560=84$ |
|  | In Hin $=10$ S012 $270=27$ | $\ln \mathrm{H} \mathrm{n}=158001320=48$ | In Hin $=15 \% 01560084$ |
| $\ln$ Barg $=4 \%$ \% $450=18$ | In $\mathrm{Bang}=102 \mathrm{sot} 270=27$ | In Bang $=58$ \%ot $320=16$ | In ${ }^{\text {ang }}$ = 5 5\%ot $500-28$ |
| $\ln (\mathrm{E}+\mathrm{H})=248801450=108$ | $\ln (E+H)=20 \%$ ot $270=54$ | $\ln (E+H)=15 \% 01320=48$ | $\ln (E+H)=20801560=112$ |
| $\ln (E+B)=208004500=90$ | $\ln (E+B)=20 \% 00270=54$ | $\ln (\mathbb{E}+8)=25 \% 0130080$ | $\ln (E+B)=208005500=112$ |
| $\ln (\mathrm{H}+\mathrm{B})=148004500=63$ | $\ln (H+B)=10 \%$ of $270=27$ | $\ln (H+B)=10501320=32$ | $\ln (H+B)=15 \% 01560=84$ |
| $\ln (E+H+B)=450-\quad \text { In }$ | $\begin{aligned} & \ln (\mathrm{E}+\mathrm{H}+\mathrm{B})=270- \\ & (54+27+27+54+54+27) \end{aligned}$ | $\begin{array}{r} \ln (\mathbf{E}+\mathrm{H}+\mathrm{B})=320-(64+48+16+ \\ 48+80+32) \end{array}$ | $\begin{array}{r} \ln (\mathrm{E}+\mathrm{H}+\mathrm{B})=560-(84+84+28+ \\ 112+112+84) \end{array}$ |
| $=450-396054$ | $=270-243-27$ | $=320-288=32$ | $=560-504=56$ |

1.(4)

Required number of students $=72+45+54+27=198$
2.(3)

Required number of students $=54+27+32+56=169$
3.(5)

Required percentage $=(27+54+27+27+28+112+84+56) /(270$
$+560) \times 100 \%=50 \%$
4.(1)

Required number of students $=48+16+32+84+28+84=292$
5.(2)

Required ratio $=(64+48+80+32):(84+112+84+56)=224: 336=2: 3$
6. (4)

Required ratio $=(108+90+63+54+54+54+27+27) / 720 \times 100 \%=661 / 4 \%$
7.(5)

43\%
8. B
9. C
10. C
11. $B$
12. (B) Flower-nectar contains $50 \%$ of non-water part.

In honey this non-water part constitutes $85 \%$ (100-15).
Therefore 0.5 X Amount of flower-nectar $=0.85 \mathrm{X}$ Amount of honey $=0.85 \mathrm{X}$
1 kg
Therefore amount of flower-nectar needed $=.85 / .5 * 1=1.7 \mathrm{kgs}$

## S13. Ans.(e)

Sol. The series is $\times 2-1, \times 4-3, \times 6-5, \times 8-7, \times 10-9, \ldots \ldots$

S14. Ans.(d)
Sol. The series is $+63,+73,+83,+93,+103$.

S15. Ans.(b)
Sol. The series is
$50 \times 0.5=25$,
$25 \times 1.5=37.5$,
$37.5 \times 2.5=93.75$,
$93.75 \times 3.5=328.125$,
$328.125 \times 4.5=1476.5625$

