

Quantitative Aptitude for IDBI Executive Exam 2018

Q1. Total no. of population who are graduate are what percent of total no. of graduate persons who are involved in only music and only sports together?

- (a) 182(4/13)%
- (b) 192(4/13)%
- (c) 198(4/13)%
- (d) Can't be determined
- (e) 188%

Q2. Total no. of population who is still studying in various classes from 1st to 12th is what percent more or less than the total no. of population who is involved in yoga only (approximately)?

- (a) 54% less
- (b) 48% more
- (c) 48% less
- (d) 42% more
- (e) 58% less

Q3. Total no. of persons who are involved in only music and only sports together are what percent of total population of the village?

- (a) 3.12%
- (b) 28.2%
- (c) 31.2%
- (d) 38.2%
- (e) 37.2%

Q4. If the ratio of male to female in the population of age group (20 – 40) years and (41 – 60) years is 3 : 2 and 3 : 1 respectively and 35% of females of age group (20-40) years play hockey and 36% of females of age group (41-60) years play Ludo then what is the ratio of females who play hockey to the ratio of females who do not play Ludo?

- (a) 8 : 21
- (b) 11 : 3
- (c) 23 : 9
- (d) 21 : 8
- (e) 14 : 9

Q5. Total no. of person who are involved in only music and only sports together are what percent more or less than the total no. of population who is involved in yoga only?

- (a) 25/3% more
- (b) 25/3% less
- (c) 35/8% more
- (d) 25/9% less
- (e) 25/8% more

Solutions (1-5):

Let total population of village = x

$$\therefore x \times \frac{80}{100} \times \frac{25}{100} = 10,000$$

$$\Rightarrow x = 50,000$$

Population of age group (41 – 60) years

$$= \frac{20}{100} \times 50,000$$

$$= 10,000$$

Population of age group (20 – 40) years

$$= 50,000 - (10,000 + 10,000)$$

$$= 30,000$$

S1. Ans.(b)

Sol. Total no. of population who are graduate = $\frac{80}{100} \times (30,000) + 10,000 \times \frac{60}{100}$

$$= 30,000$$

Total no. of persons who are involved in music and sports only

$$= \frac{80}{100} \times 30,000 \times \frac{65}{100}$$

$$= 15,600$$

$$\therefore \text{Required percentage} = \frac{30,000}{15,600} \times 100$$

$$= 192 \frac{4}{13} \%$$

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S2. Ans.(c)

Sol. Total no. of persons who are still studying in various classes from 1st to 12th

$$= \frac{75}{100} \times 10,000$$

$$= 7,500$$

Total persons who involved in yoga

$$= \frac{80}{100} \times 30,000 \times \frac{35}{100} + \frac{60}{100} \times 10,000$$

$$= 8,400 + 6,000$$

$$= 14,400$$

$$\therefore \text{Required percentage} = \frac{14,400 - 7,500}{14,400} \times 100$$

$$= \frac{575}{48} \approx 48\% \text{ less}$$

S3. Ans.(c)

Sol. Total person who involved in music and sports only

$$= \frac{40}{100} \times \frac{80}{100} \times 30,000 + \frac{25}{100} \times \frac{80}{100} \times 30,000$$

$$= 15,600$$

$$\therefore \text{Required percent age} = \frac{15,600}{50,000} \times 100$$

$$= 31.2\%$$

S4. Ans.(d)

Sol. Total females of age group (20 – 40) years who play hockey

$$= \frac{2}{5} \times \frac{35}{100} \times 30,000$$

$$= 4,200$$

Total females of age group (41-60) years who do not play

$$\text{Ludo} = \frac{1}{4} \times \frac{64}{100} \times 10,000$$

$$= 1,600$$

$$\therefore \text{Required ratio} = \frac{42}{16} = \frac{21}{8}$$

S5. Ans.(a)

Sol. Total persons who involved in music and sports only = 15,600

Total persons who involved in yoga only

$$= \frac{35}{100} \times \frac{80}{100} \times 30,000 + \frac{60}{100} \times 10,000$$

$$= 14,400$$

$$\therefore \text{Required percentage} = \frac{15,600 - 14,400}{14,400} \times 100$$

$$= 8\frac{1}{3}\% \text{ more}$$

Q6. A video cassette distributor made 3500 copies of the march issue of the cassette at a cost of Rs. 350000. He gave 500 cassettes free to some key video libraries. He also allowed a 25% discount on the market price of the cassette and gave one extra cassette free with every 29 cassettes bought at a time. In this manner, he was able to sell all the 3500 cassettes that were produced. If the market price of a cassette was Rs. 150, then what is his gain or loss percent for the march issue of video cassettes(in approximate).

- (a) 25% loss
- (b) 10% gain
- (c) 40% gain

- (d) 7% loss
- (e) 12% loss

Q7. The marked price of an article is increased by 25% and the selling price is increased by 16.66%, then the amount of profit doubles. If the original marked price be Rs. 400 which is greater than the corresponding cost price by 33.33%, what is the increased selling price?

- (a) 240
- (b) 360
- (c) 420
- (d) 600
- (e) 460

Q8. Neha's weight is 140% of Tina's weight. Mina's weight is 90% of Lina's weight. Lina weighs twice as much as Tina. If Neha's weight is x% of Mina's weight, then x is equal to:

- (a) 64(2/9)
- (b) 77(7/9)
- (c) 90
- (d) 128(4/7)
- (e) 87

Q9. The proportion of acid and water in three samples is 2 : 1, 3 : 2 and 5 : 3. A mixture containing equal quantities of all three samples is made. The ratio of water and acid in the mixture is:

- (a) 120 : 133
- (b) 227 : 133
- (c) 227 : 120
- (d) 133 : 227
- (e) None of these

Q10. In how many ways the five boys can be seated among six girls in such a way that no two boy sit together?

- (a) 2520
- (b) 5040
- (c) 720
- (d) 2250
- (e) None of these

S6. Ans.(d)

Sol. Selling price of one cassette = $150 \times \frac{75}{100}$

= 112.5 rupee

Total selling price = $29 \times 100 \times 112.5$

= Rs. 3,26,250

\therefore Percentage loss/profit = $\frac{3,50,000 - 3,26,250}{3,50,000} \times 100$

$\approx 6.8\%$ loss

S7. Ans.(c)

Sol. C.P. of article = $\frac{3}{4} \times 400$

= 300

Let original selling price = Rs. x

\therefore New selling price = $x + \frac{50}{300}x$

= $\frac{7x}{6}$

ATQ,

$\frac{7x}{6} - 300 = 2(x - 300)$

$\Rightarrow 7x - 1800 = 2x - 3600$

$\Rightarrow 5x = 1800$

$\Rightarrow x = \text{Rs. } 360$

\therefore Increased selling price = $360 \times \frac{7}{6}$

= 420

S8. Ans.(b)

Sol. Let Tina's weight = 1 kg

Lina's weight = 2 kg

Neha' weight = 1.4 kg

Mina's weight = 1.8 kg

Now, according to question,

$$\therefore \frac{1.8x}{100} = 1.4$$

$$\Rightarrow x = \frac{1.4 \times 100}{1.8} = \frac{700}{9} = 77\frac{7}{9}$$

S9. Ans.(d)

Sol. Let the quantity = 120

In first sample acid = $\frac{2}{3} \times 120 = 80$ litre

Water = 40 litre

In 2nd sample acid = $\frac{3}{5} \times 120 = 72$ litre

Water = 48 litre

In 3rd sample acid = $\frac{5}{8} \times 120 = 75$ litre

Water = 45 litre

Total acid = 227 litre, water = 133 litre

Ratio = 133 : 227

S10. Ans.(b)

Sol. $0 \times 0 \times 0 \times 0 \times 0 \times 0 \times 0$

0 → Place for boys

x → Position of girls

$$\therefore \text{Required ways} = {}^7P_5 = \frac{7 \times 6 \times 5 \times 4 \times 3}{2}$$

$$= 2520$$

Directions (11-15): In the following series questions there is a term which does not follow the usual pattern. Find that term as your answer.

Q11. 11, 75, 291, 803, 1813, 3531

- (a) 803
- (b) 1813
- (c) 3531
- (d) 75
- (e) 291

Q12. 3.6, 10, 22.8, 48.4, 99.8, 202

- (a) 22.8
- (b) 48.4
- (c) 99.8
- (d) 202
- (e) 10

Q13. 3, 4, 10, 33, 136, 685, 4216

- (a) 33
- (b) 136
- (c) 685
- (d) 4216

(e) 10

Q14. 1020, 1152, 1292, 1440, 1592, 1760

- (a) 1152
- (b) 1760
- (c) 1440
- (d) 1592
- (e) 1292

Q15. 4.8, 2.4, 3.6, 12.6, 82.9, 859.95

- (a) 859.95
- (b) 2.4
- (c) 3.6
- (d) 12.6
- (e) 82.9

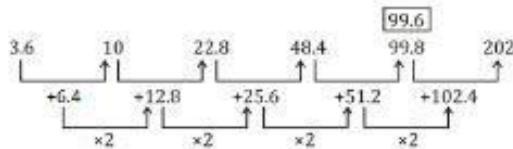
S11. Ans.(b)

Sol. The pattern is $+4^3, +6^3, +8^3, +10^3, +12^3, \dots$

\therefore Wrong term = $1813 \neq 803 + 1000 = 1803$

S12. Ans.(c)

Sol. Series is



S13. Ans.(d)

Sol.

Pattern is

$\times 1+1, \times 2+2, \times 3+3, \times 4+4, \times 5+5, \times 6+6$

\therefore Wrong term = $4216 \neq 685 \times 6 + 6 = 4116$

S14. Ans.(d)

Sol. Series is $32^2 - 4 = 1024 - 4 = 1020$

$$34^2 - 4 = 1156 - 4 = 1152$$

$$36^2 - 4 = 1296 - 4 = 1292$$

$$38^2 - 4 = 1444 - 4 = 1440$$

$$40^2 - 4 = 1600 - 4 = 1596$$

$$42^2 - 4 = 1764 - 4 = 1760$$

S15. Ans.(e)

Sol. Pattern is $\times 0.5, \times 1.5, \times 3.5, \times 6.5, \times 10.5$

\therefore Wrong term = $82.9 \neq 12.6 \times 6.5 = 81.9$



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