

Quiz Date: 3rd April 2020

Q1. Veer and Sameer enter into a business by making the investment in the ratio of 3 : 4. After six months Veer added Rs. 2000 more in his initial investment, while Sameer withdraw Rs. 4000 from his initial investment. If at the end of one year Veer and Sameer shared profit in the ratio of 7 : 9, then find initial investment of both ?

- (a) 69000 Rs. 92000 Rs
- (b) 36000 Rs. 48000 Rs.
- (c) 27000 Rs. 36000 Rs.
- (d) 45000 Rs. 60000 Rs.
- (e) 24000 Rs. 32000 Rs.

Q2. A, B and C enter into a partnership and invested some amount. After one year A double its investment, B increase its investment by $33\frac{1}{3}\%$ and C increase its investment by 20%. In the third year A and B withdraw their investments and D joins the partnership with C. After three year they got profit in the ratio of 12 : 14 : 17 : 8 (A : B : C : D). If difference between initial investment of B and C is 1150. Then Find out the total initial investment made by A and D together?

- (a) 12100
- (b) 14400
- (c) 13800
- (d) 15000
- (e) None of these

Q3. A started a business with Rs 9000 and B joined him with Rs 16000 after 3 months. After a year 'A' got 35% of total profit for his managerial work while remaining profit is divided into A and B according to their investment. It after a year 'A' got Rs 52800 as his share, the total profit earned by them?

- (a) 74,000
- (b) 76,000
- (c) 80,000
- (d) 84,000
- (e) 88,000

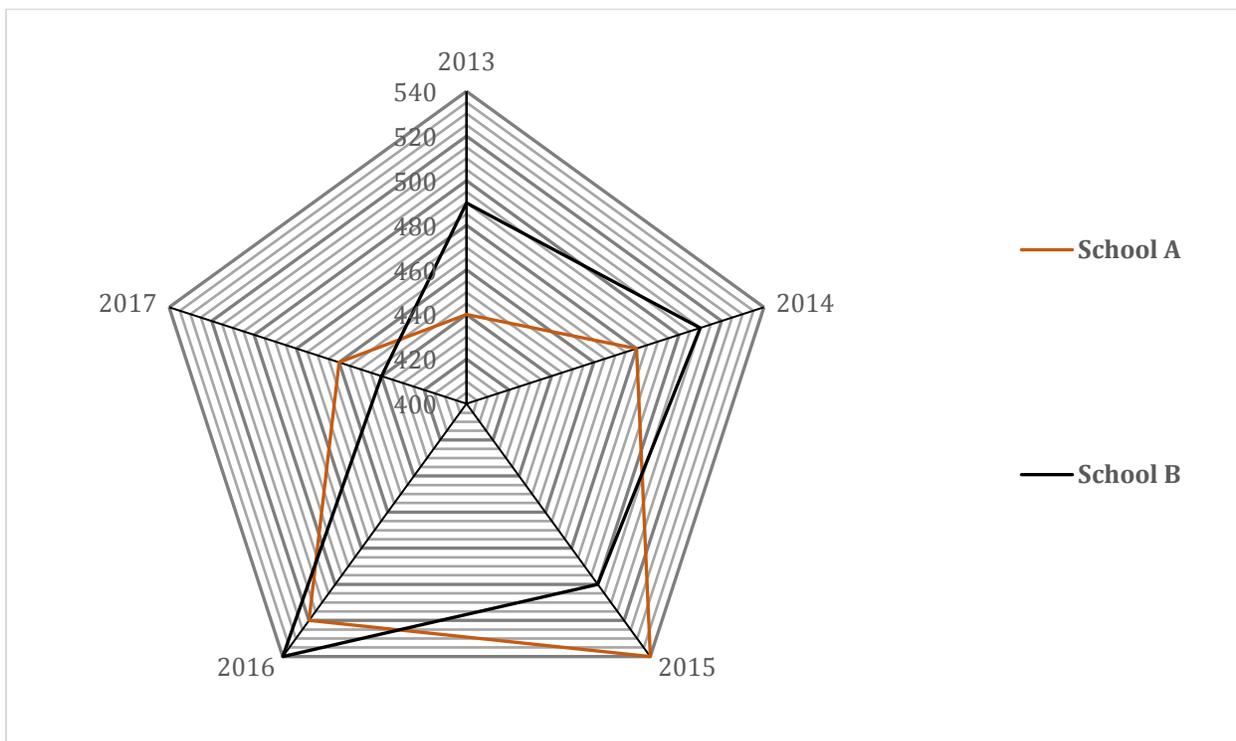
Q4. Veer, Sameer and Gopal enter into a business by making investment in the ratio of 5 : 6 : 7 respectively. After six months Veer and Sameer withdraw $\frac{1}{5}$ th and 25% of his initial investment respectively. After eight months from the starting of business Gopal added $\frac{1}{7}$ th of his initial investment. If at the end of one year profit share of Gopal is Rs. 2000 more than Sameer, then find profit share of Veer?

- (a) 4420 Rs.
- (b) 4520 Rs.
- (c) 4820 Rs.
- (d) 4320 Rs.
- (e) 4720 Rs.

Q5. A, B and C entered into a partnership business, A invested Rs. x , B invested 25% more than A and C invested 20% more than B for first 6 months. After that A left the business and B withdraw 50% of his investment. B left the business after 3 more months whereas C increased his investment by $16\frac{2}{3}\%$. If at the end of year difference between profit share of C and (A + B) together is Rs. 12375, then find profit share of C ?

- (a) 58500 Rs.
 (b) 56500 Rs.
 (c) 55680 Rs
 (d) 55580 Rs.
 (e) 52680 Rs.

Direction (6-10): - Bar graph given below shows number of students passed in an exam from school A and B in five different years. Study the bar graph carefully and answer the following questions.



Q6. In 2016, ratio between boys passed to girls passed from school 'A' and School 'B' are 8 : 5 and 16 : 11 respectively. Find the ratio between boys passed from school 'A' and 'B' together in 2016 to girls passed from school 'A' and 'B' together in 2016.

- (a) 23 : 31
 (b) 32 : 21
 (c) 29 : 17
 (d) 25 : 37
 (e) 3 : 4

Q7. If in 2014, 96% and 85% students passed from school A and B respectively out of total students appeared, then find the average number of failed students from school A and B together in 2014.

- (a) 20
- (b) 60
- (c) 75
- (d) 55
- (e) 55

Q8. Students passed from school 'A' in 2013, 2015, 2017 together is how much less than students passed from school B in 2014, 2016, 2017 together.

- (a) 50
- (b) 40
- (c) 60
- (d) 70
- (e) 80



Q9. In 2014, total 600 students appeared from school 'A' for exam in which ratio between boys and girls is 7 : 5. If out of total girls appeared in exam 90% of girls passed, then find the number of boys passed from school 'A' is what percent of the total number of boys appeared in the exam?

- (a) $\frac{169}{2}\%$
- (b) $\frac{763}{8}\%$
- (c) $\frac{510}{7}\%$
- (d) 76%
- (e) $\frac{528}{7}\%$

Q10. Find the ratio between total number of students passed from school 'A' in 2014 and 2015 together to total number of students appeared from school B in 2016 and 2017 together.

- (a) 51 : 49
- (b) 49 : 51
- (c) 47 : 45
- (d) 53 : 48

(e) Cannot be determined

Directions (11-15): What will come in place of (?) in the following questions?

Q11. $\frac{54\% \text{ of } ?}{56 \div 48 \times 54} = (3)^2$

- (a) 1050
- (b) 1200
- (c) 1140
- (d) 1180
- (e) 1100

Q12. $\{(15)^2 + (23)^2 - (17)^2\} \div 31 = ?$

- (a) 5
- (b) 35
- (c) 25
- (d) 45
- (e) 15

Q13. $\left(\frac{?+65}{45\% \text{ of } 480}\right) \times 72 \div 35 \times 840 = ? \times 18$

- (a) 13
- (b) 65
- (c) 52
- (d) 26
- (e) 39

Q14. $(?)^3 + (9)^2 = (12)^3 - 35\% \text{ of } 1800 - 80\% \text{ of } 360$

- (a) 14
- (b) 12
- (c) 9
- (d) 6
- (e) 11

Q15. $? = \{(65\% \text{ of } 3400) \div (45\% \text{ of } 900)\} \text{ of } 648$

- (a) 3022
- (b) 3536
- (c) 3468
- (d) 3290
- (e) 3812

Solutions

S1. Ans.(a)

Sol.

Lets Veer and Sameer invested Rs. 3x and Rs. 4x respectively.

Ratio of investment of Veer and Sameer

$$= [3x \times 6 + (3x + 2000) \times 6] : [4x \times 6 + (4x - 4000) \times 6]$$

$$= (36x + 12000) : (48x - 24000)$$

ATQ—

$$\frac{36x+12000}{48x-24000} = \frac{7}{9}$$

$$36x \times 9 + 12000 \times 9 = 7 \times 48x - 24000 \times 7$$

$$12000(9 + 14) = 12(7 \times 4x - 3 \times 9x)$$

$$1000 \times 23 = 28x - 27x$$

$$x = 23000 \text{ Rs.}$$

Investment of Veer = $3 \times 23000 = 69000$ Rs.

Investment of Sameer = $4 \times 23000 = 92000$ Rs.

S2. Ans.(c)

Sol.

Let investment of A, B, C and D is a, b, c and d respectively.

A B C D

Now in first year $\rightarrow a \times 12 : b \times 12 : c \times 12$

In 2nd year $\rightarrow 2a \times 12 : \frac{4b}{3} \times 12 : \frac{6c}{5} \times 12$

In 3rd year $\frac{6c}{5} \times 12 : d \times 12$

A : B : C : D

$$\Rightarrow (a \times 12 + 2a \times 12) : (b \times 12 + \frac{4}{3}b \times 12) : c \times 12 + 2 \times \frac{6}{5}c \times 12 : d \times 12$$

$$3a : \frac{7b}{3} : \frac{17}{5}c : d = 12 : 14 : 17 : 8$$

$$\Rightarrow a : b : c : d = 4 : 6 : 5 : 8$$

Difference between B and C initial investment = 1150

Total Investment of A and D together

$$= \frac{1150}{1} \times 12 = 13800$$



S3. Ans.(d)

Sol.

Let total profit = x

A's and B's share according to their investment = $9000 \times 12 : 16000 \times 9$
= 3 : 4

ATQ,

$$\frac{35x}{100} + \frac{3x}{7} \times \frac{65}{100} = 52800$$

$$\Rightarrow \frac{88x}{140} = 52800$$

$$\Rightarrow x = \frac{52800 \times 140}{88}$$

$$x = 84,000$$

S4. Ans.(d)

Sol.

Let Veer, Sameer and Gopal invested Rs. 5x, Rs. 6x and Rs. 7x respectively

Ratio between profit share of Veer, Sameer and Gopal

$$= \left(5x \times 6 + 5x \times \frac{4}{5} \times 6\right) : \left(6x \times 6 + 6x \times \frac{3}{4} \times 6\right) : \left(7x \times 8 + 7x \times \frac{8}{7} \times 4\right)$$

$$= 54x : 63x : 88x$$

$$= 54 : 63 : 88$$

Profit share of Veer

$$= 54 \times \frac{2000}{(88-63)}$$

$$= 4320 \text{ Rs.}$$

S5. Ans. (a)

Sol.

Let investment of A, B and C

$$= x : 1.25x : 1.5x$$

$$= 4x : 5x : 6x$$

ATQ—

$$\text{Profit share of A : B : C} = 4x \times 6 : (5x \times 6 + 2.5x \times 3) : (6x \times 6 + 7x \times 6)$$

$$= 24x : 37.5x : 78x$$

$$\text{Given} \rightarrow C - (A + B) = 12375$$

$$78x - (24x + 37.5x) = 12375$$

$$x = 750$$

$$\text{Profit share of C} = 750 \times 78 = 58500 \text{ Rs.}$$

S6. Ans.(b)

Sol.

Total students passed from school A in 2016 = 520

Total students passed from school B in 2016 = 540

$$\text{So, required ratio} = \frac{\frac{8}{13} \times 520 + \frac{16}{27} \times 540}{\frac{5}{13} \times 520 + \frac{11}{27} \times 540} = \frac{320 + 320}{200 + 220} = \frac{640}{420} = 32 : 21$$

S7. Ans.(d)

Sol.

In 2014 total students passed from school 'A' = 480

Percentage of passed students from school 'A' = 96%

So, number of failed students from school 'A' in 2014 = $\frac{480}{96} \times 4 = 20$ students

In 2014, total students passed from school 'B' = 510

Percentage of passed students from school B = 85%

So, number of failed students from school B in 2014 = $\frac{510}{85} \times 15 = 90$ students

So, average number of failed students from both school in 2014 = $\frac{20+90}{2} = 55$

S8. Ans.(a)

Sol.

Students passed from school A in 2013, 2015, 2017 = 440 + 540 + 460 = 1440

Students passed from school B in 2014, 2016 and 2017 = 510 + 540 + 440 = 1490

Required difference = 1490 - 1440 = 50



S9. Ans.(c)

Sol.

Total number of students appeared from school 'A' in 2014 = 600

Total number of students passed from school 'A' in 2014 = 480

Boys students appeared = $\frac{7}{12} \times 600 = 350$

Girls student appeared = $\frac{5}{12} \times 600 = 250$

Girls students passed from A in 2014 = $\frac{90}{100} \times 250 = 225$

So, Boys students passed = 480 - 225 = 255

Required percentage = $\frac{255}{350} \times 100 = 72\frac{6}{7}\%$

S10. Ans.(e)

Sol. Total number of students from school B cannot be determined as data is not given.

S11. Ans.(a)

Sol.

$$\frac{\frac{54}{100} \times ?}{56 \times \frac{1}{48} \times 54} = 9$$

$$\Rightarrow \frac{54 \times ?}{\frac{100}{7 \times 9}} = 9$$

$$\Rightarrow \frac{54 \times ?}{7 \times 9} = 9$$

$$\Rightarrow \frac{54 \times ?}{63} = 9$$

$$\Rightarrow ? = 1050$$

S12. Ans.(e)

$$\text{Sol. } \{225 + 529 - 289\} \times \frac{1}{31} = ?$$

$$? = \frac{465}{31}$$

$$? = 15$$

S13. Ans.(c)

Sol.

$$\left(\frac{? + 65}{\frac{45}{100} \times 480} \right) \times 72 \times \frac{1}{35} \times 840 = ? \times 18$$

$$? = \left(\frac{? + 65}{216} \right) \times 72 \times \frac{1}{35} \times 840 \times \frac{1}{18}$$

$$\Rightarrow ? = (? + 65) \times \frac{4}{9}$$

$$\Rightarrow 9 \times ? = 4 \times ? + 260$$

$$\Rightarrow 5 \times ? = 260$$

$$? = 52$$

S14. Ans.(c)

Sol.

$$(?)^3 = 1728 - \frac{35}{100} \times 1800 - \frac{80}{100} \times 360 - 81$$

$$(?)^3 = 1647 - 630 - 288$$

$$(?)^3 = 729$$

$$? = 9$$

S15. Ans.(b)

Sol.

$$? = \left\{ \left(\frac{65}{100} \times 3400 \right) \div \left(\frac{45}{100} \times 900 \right) \right\} \times 648$$

$$? = \left\{ 2210 \times \frac{1}{405} \right\} \times 648$$

$$? = 3536$$

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