

Quiz Date: 5th July 2020

Q1. In 500 ml of glass, 20% of the glass was empty & remaining portion of glass has 15% of alcohol solution. It is then mixed with 600 ml of solution, having 30% alcohol in it. Find the amount of pure alcohol that must be added to resultant solution, in order to have 25% alcohol content in it.

- (a) 10 ml
- (b) $\frac{40}{3}$ ml
- (c) $\frac{50}{3}$ ml
- (d) 15 ml
- (e) 12 ml

Q2. The speed of car is 25% more than the speed of bus. The time difference between them to cover a certain distance D, is 1 hour. On particular day, driver noticed that if they are (D-40) km apart from each other then they can meet in 2 hours driving in opposite direction at their normal speed. Find 150% of the speed of bus ?

- (a) 150 km/hr
- (b) 90 km/hr
- (c) 120 km/hr
- (d) 105 km/hr
- (e) None of these

Q3. A bag contains 5 red, 4 green and 3 black balls. If three balls are drawn out of it at random, find the probability of drawing exactly 2 red balls ?

- (a) $\frac{5}{22}$
- (b) $\frac{7}{24}$
- (c) $\frac{6}{25}$
- (d) $\frac{2}{11}$
- (e) $\frac{7}{22}$

Q4. Rahul bought a cycle at a discount of $16\frac{2}{3}\%$ on MRP. He earned half the amount of his CP by renting it for 200 days. After that he resells it at half of MRP. In this transaction he earned Rs. 200, find MRP of cycle (in Rs).

- (a) 1860
- (b) 2490
- (c) 2400
- (d) 2280
- (e) 2310

Q5. Ratio of present age of Sumit & Anju is 3 : 4. Ratio of age of Anju 6 years later to present age of Vikas is 2 : 1. Also ratio of present age of Sumit to age of Vikas 2 years later is 1 : 1. Find sum of present age of all the three (in years).

- (a) can't be determined
 (b) 46
 (c) 55
 (d) 48
 (e) 50

Directions (6-10): Study the following information carefully and answer the questions given below it.

Strength (Number of employees) of Seven companies over the Years							
Year	Companies						
	Infosys	TCS	HCL	Borsch	Wipro	Adobe	Oracle
2012	750	640	680	780	740	620	650
2013	700	600	720	800	720	580	720
2014	800	620	730	820	760	640	730
2015	820	660	670	760	750	560	750
2016	740	760	690	790	780	650	680
2017	720	740	700	810	730	630	690
2018	780	700	660	840	720	660	740

Q6. What is the ratio between total strength of company Infosys, TCS and HCL together in 2013 and the total strength of company Wipro, Adobe and Oracle together in 2015 respectively?

- (a) 103 : 101
 (b) 101 : 103
 (c) 51 : 53
 (d) 53 : 51
 (e) None of these



Q7. If in 2012, the overall percentage of employees got promoted from all the company is 70%, total how many employees got promoted in 2012 from all the companies together?

- (a) 3402
 (b) 3420
 (c) 3422
 (d) 3382

(e) None of these

Q8. If from TCS, overall 60% employees passed in a test for all the given years, approximately what is the average of number of employees passed?

- (a) 430
- (b) 425
- (c) 390
- (d) 395
- (e) 405

Q9. Strength of Adobe in 2014 was what percent of the total strength of that company for all seven years together? (Rounded off to two digits after decimal)

- (a) 14.28
- (b) 14.98
- (c) 12.90
- (d) 14.75
- (e) None of these

Q10. What is the difference between the total numbers of employees in 2016 for all the companies together and total number of employees in 2018 for all the companies together?

- (a) 50
- (b) 70
- (c) 10
- (d) 30
- (e) None of these

Directions (11-15): Find the wrong number in the following series:

Q11. 15, 91, 457, 1831, 5497, 10997

- (a) 457
- (b) 91
- (c) 5497
- (d) 15
- (e) 10997

Q12. 10, 17, 45, 108, 220, 390

- (a) 220
- (b) 390
- (c) 10
- (d) 108
- (e) 45

Q13. 10, 30, 90, 450, 3150, 34650

- (a) 10
- (b) 34650
- (c) 3150
- (d) 90

(e) 30

Q14. 325, 546, 754, 936, 1078, 1170

(a) 936

(b) 546

(c) 325

(d) 1078

(e) 1170

Q15. 100, 127, 252, 877, 4002, 19627

(a) 4002

(b) 252

(c) 100

(d) 127

(e) 19625



Solutions

S1. Ans.(b)

Sol.

In 500 ml glass, which is 20% empty, means it have 400 ml solution.

$$\text{Alcohol present} = \frac{15}{100} \times 400 = 60 \text{ ml}$$

In 600 ml solution,

$$\text{Alcohol Present} = \frac{30}{100} \times 600 = 180 \text{ ml}$$

∴ 240 ml alcohol is present in 1000 ml.

Let amount of pure alcohol added be 'x' ml.

Then,

$$240 + x = (1000 + x) \times \frac{25}{100}$$

$$\text{i.e. } x = \frac{40}{3} \text{ ml}$$

S2. Ans.(c)

Sol.

Let speed of car is $5x \text{ km/hr}$ and speed of bus is $4x \text{ km/hr}$.

According to first condition,

$$\frac{D}{4x} - \frac{D}{5x} = 1 \Rightarrow \frac{5D-4D}{20x} = 1$$

$$\Rightarrow D = 20x \dots(i)$$

Also if they are travelling in opposite direction,

Then

$$\frac{D-40}{4x+5x} = 2 \Rightarrow D - 40 = 18x \dots(ii)$$

From (i) & (ii)

$$18x + 40 = 20x \Rightarrow x = 20$$

Hence speed of bus = $4 \times 20 = 80$ km/hr

$$150\% \text{ of speed of bus} = \frac{150}{100} \times 80 = 120 \text{ km/hr}$$

S3. Ans.(e)

Sol.

Exactly 2 red balls can be selected in two ways.

(i) 2 red ball & 1 green ball

(ii) 2 red ball & 1 black ball

Total no. of possible outcome = ${}^{12}C_3$

$$= \frac{12 \times 10 \times 11}{3 \times 2}$$

$$= 220 \text{ ways}$$

Total favourable outcome

$$= {}^5C_2 \times {}^4C_1 + {}^5C_2 \times {}^3C_1$$

$$= \frac{5 \times 4}{2} \times 4 + \frac{5 \times 4}{2} \times 3$$

$$= 40 + 30 = 70 \text{ ways.}$$

$$\text{Probability} = \frac{70}{220} = \frac{7}{22}$$

S4. Ans.(c)

Sol.

Let the MRP of cycle is $6x$.

\therefore discount is $\frac{50}{3}\%$ of $6x = x$

\therefore Rahul bought this cycle for $5x$

He earns $2.5x$ by renting it and resells it at $3x$.

ATQ

$$3x + 2.5x - 5x = 200$$

$$0.5x = 200$$

$$\Rightarrow x = 400$$

$$\therefore \text{MRP} = 6x = 6 \times 400 = \text{Rs. } 2400$$

S5. Ans.(d)

Sol.

Let present age of Sumit, Anju & Vikas is S , A & V years respectively.

$$S : A = 3 : 4 \Rightarrow 3A - 4S = 0 \dots(i)$$

Also

$$\frac{A+6}{V} = \frac{2}{1} \Rightarrow A = 2V - 6 \dots(ii)$$

BANKERS

adda247

$$\& \frac{S}{V+2} = \frac{1}{1} \Rightarrow S = V + 2 \dots(\text{iii})$$

Put value of eq. (ii) & (iii) in eq. (i)

$$3[2V - 6] - 4[V + 2] = 0$$

$$6V - 18 - 4V - 8 = 0$$

$$2V = 26 \Rightarrow V = 13 \text{ years}$$

$$S = 15 \text{ years}$$

$$A = 20 \text{ years}$$

Sum of their present age = 48 years

S6. Ans (b)

$$\text{Sol. Ratio} = \frac{700+600+720}{750+560+750} = \frac{2020}{2060} = 101 : 103$$

S7. Ans (a)

Sol. total employees in 2012 = 750 + 640 + 680 + 780 + 740 + 620 + 650 = 4860

$$\text{Required employees} = \frac{70}{100} \times 4860 = 3402$$

S8. Ans (e)

Sol. total employees in TCS in all years = 640 + 600 + 620 + 660 + 760 + 740 + 700 = 4720

$$\text{Required average} = \frac{60}{100} \times \frac{4720}{7} = 404.57 \approx 405 \text{ (approx)}$$



S9. Ans (d)

Sol. total strength of Adobe in all years = 620 + 580 + 640 + 560 + 650 + 630 + 660 = 4340

$$\text{Required \%} = \frac{640}{4340} \times 100$$

$$= 14.75\%$$

S10. Ans (c)

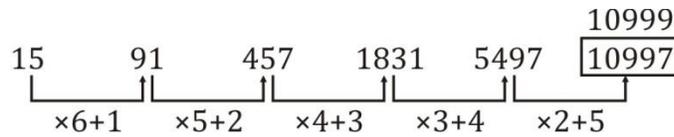
Sol. total employees in 2016 = 740 + 760 + 690 + 790 + 780 + 650 + 680 = 5090

Total employees in 2018 = 780 + 700 + 660 + 840 + 720 + 660 + 740 = 5100

Required difference = 5100 - 5090 = 10

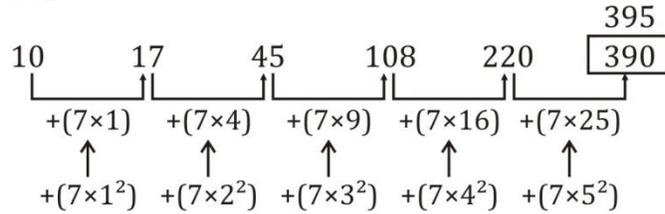
S11. Ans.(e)

Sol.



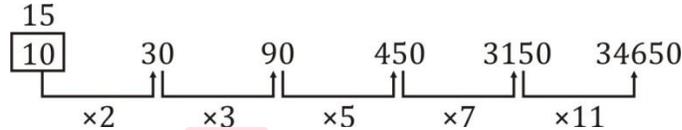
S12. Ans.(b)

Sol.



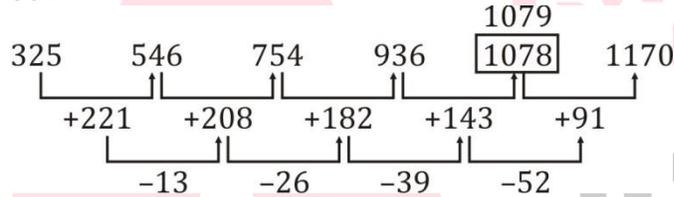
S13. Ans.(a)

Sol.



S14. Ans.(d)

Sol.



S15. Ans.(c)

Sol.

